

IMPLEMENTING A CULTURAL HISTORICAL ACTIVITY THEORY APPROACH TO BLENDED LANGUAGE LEARNING

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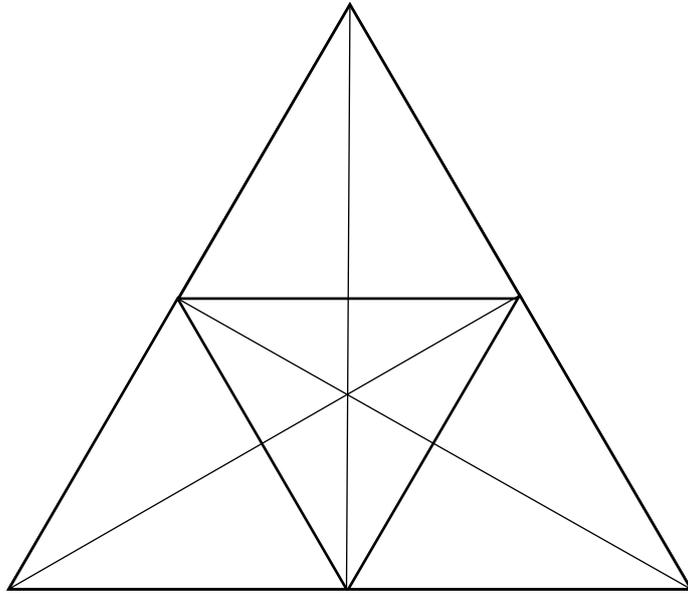
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'And [Engeström's] auld triangle[s] went jingle-jangle...'

-The Dubliners

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Abstract: Implementing a Cultural Historical Activity Theory Approach to Blended Language Learning

Author: Oisín Ó Doinn

The qualitative study presented in this thesis investigated the activity of ab initio Irish language learners participating in a real world Blended Learning (BL) course *Introduction to Irish* which took place in Carnegie Mellon University, 2016. The course's design included a mixture of 'off the shelf' online language learning technologies and traditional language learning resources. Taking the BL course's weekly sub-activity systems as the unit of analysis, this thesis addresses the research question of 'What contradictions emerge in a BL course for ab initio language learners?'. The research question was pursued by adapting a Cultural Historical Activity Theory (CHAT) based methodological approach and research instruments developed by Prof. Françoise Blin in her 2005 study on the development of learner autonomy within a hybrid French language course at Dublin City University. In this study, Blin's CHAT-based approach was used to identify contradictions within the activity system of the blended course. Effective elements within the course's design and their relationships to one another were also identified.

The study's findings suggest that CHAT provides a sound conceptual framework to record and analyse learners' activity within newly designed BL courses. Practically, the study illustrates how Blin's CHAT-based coding scheme can be adapted to identify contradictions in ab initio BL courses. The study also illustrates how CHAT can be used to inform ab initio BL course design. Importantly for researchers studying BL environments, the findings suggest that working from a CHAT perspective facilitates the documentation of face-to-face and online activity both historically and within the course's larger social context. Importantly for language instructors, the main findings of the study suggest that the;

1. Language teacher played an important role in facilitating communication among the ab initio language learners in the target language, particularly within the face-to face-classroom.
2. Authentic artefacts produced by the teacher were perceived by the students as valuable language learning resources for improving their aural and oral competencies.
3. The ab initio learners were capable of combining multiple tools and artefacts included in the course's blend to pursue their individual learning goals.
4. The ab learners preferred to engage with artefacts and tools provided to them at this early stage in their language learning, rather than create artefacts to pursue their own learning objects.

Keywords: Blended Learning, Cultural Historical Activity Theory, Computer Assisted Language Learning, Beginners Blended Course, Ab Initio Language Learning

Chapter 1 Introduction

This qualitative study focuses on the investigation of a technology rich language course, designed specifically for ab initio language learners. The learning objectives in the course were defined using the *Common European Framework of Reference for Languages* (CEFR). The study uses the Irish language as the target language in this course. Based on the author's experience teaching Irish to ab initio learners in Ireland and the United States, the language is often considered strange by those unfamiliar with its 'alien' sounds and incongruent orthography. The author posits that by using this test medium (Irish) in the study of an ab initio language course, truly successful elements and practices within the design of the course may be more readily identified. Identifying these elements and practices, and the relationship between them, may expose them to further analysis that enables the exploration of their positive (or negative) contribution to the learning activity. The findings of this study may inform the design of future ab initio level courses for more widely studied languages that have similar or additional levels of resources available to them. Additionally, the use of Irish also facilitated the recruitment of true ab initio learners in the study as it is a lesser taught language in Anglophonic environments. This is especially true when compared with the penetration of French, German and Spanish language education across the English speaking world. In order to pursue the aims of this study, the author adapted qualitative data collection instruments and analytic methods from a pre-established *Cultural Historical Activity Theory* (CHAT) approach (See Section 1.4).

1.1 The language learning boom

The majority of the *European Union* (EU) has seen continuous growth in the number of people studying a foreign language since the start of the millennium (Eurostat, 2012). According to figures released by Eurostat in 2008, French, German, Russian and English account for 95% of the foreign languages studied in the EU, though English is the most studied language (Eurostat, 2008). This is as a result of shifts in students' foreign language choices and the expansion of the EU in 2004, with most students in new Member States changing their second language choice from Russian to English. More recent research reveals that since 2002 the demand for English language courses has resulted in an

increase of 1000% in the number of English courses provided throughout Europe (EUPRIO, 2016). As a consequence of the boom in the number of language learners, Member States are facing increasing pressures to provide quality language education to their students (European Trade Union Committee for Education, 2016). These pressures relate to increasing class sizes and demand for additional appropriately qualified teaching staff familiar with the CEFR. Additionally, pressures on educational systems have been compounded by Member States' recent austerity measures (Directorate-General of Education and Culture, 2016).

In more recent years, online *computer assisted language learning* (CALL) resources have become more available to the general public than ever before. *Massive Open Online Courses* (MOOCs) for language learning (LMOOCs) such as those offered by Coursera and FutureLearn owned by the UK Open University, and language learning apps such as Duolingo offer learners the opportunity to study a second language for free. According to Costello et al. (2016), there has been huge growth in the number of MOOCs available across different platforms for a variety of subjects. The users of these platforms can number in their tens of millions. Worryingly, according to Schumann (2016: 31):

Looking at the current state of MOOCs in Europe it does not seem that we are moving toward an integration of MOOCs into European higher education. While more and more higher education institutions (HEIs) are offering MOOCs there is little development regarding an integration of MOOCs into the European Higher Education Area and the European Credit Transfer and Accumulation System (ECTS).

In the context of Ireland, Brown and Costello (2016) highlight that MOOCs do not feature prominently on the Irish policy landscape either. This lack of inclusion in policy in Ireland and at a European level may also be reflective of the lack of pedagogical training received by educators as highlighted by the European Commission (2014: 1). Moving beyond policy and training, the author proposes looking at these developments in language learning resources from a language educator's perspective, to pose the question; how can we make use of these freely available tools in formal language learning settings?

Blended learning (BL) is one approach that can provide a satisfactory answer to this question within higher educational contexts (King, 2016). According to Spring and Graham (2017), BL is occurring more often than purely online learning. BL formats offer many advantages to both the student and the teacher over traditional formats. BL is often described as the best of both traditional teaching methods and CALL (Marsh, 2012). Some of the main benefits of BL noted by researchers are increased student autonomy, increased student engagement with the target language, positive development of metacognitive strategies and improved language learning outcomes (Blin and Jalkanen, 2014, Scida and Saury, 2013). BL also offers benefits to teachers in terms of time management (Scida and Saury, 2013). Unfortunately, within an Irish context, only the minority of teachers at post primary level use BL pedagogical approaches for class preparation or in class with students for purposes other than learning about the technology itself (McGarr, 2009). This failure to blend technology into the learning environment at different levels within the Irish education system in a meaningful way has been an observable problem for some time (Mulcahy, 2005).

1.2 Defining *ab initio* language learners

As stated, the research presented in this thesis focuses on the provision of a technology rich learning environment for *ab initio language learners*. Defining the *ab initio* learner is therefore necessary in order to contextualise the research presented in this thesis. Additionally, defining the *ab initio* learner is necessary before any discussion can take place on tools, methods or applications of CALL and pedagogical approaches for the creation and implementation of a BL environment in later chapters. Chapelle (2001) highlights the importance of learner fit in designing CALL tasks and points out that CALL tasks must offer learners the opportunity to engage with the target language based on their characteristics or learning preferences. For example, by not providing beginners or *ab initio* learners with high quantities of structured input in the target language to ensure internalisation of high frequency items and structures, problems will arise in the acquisition of the target language as they progress in their studies (Gor and Vatz, 2009).

The term *ab initio* is derived from Latin and means *from the beginning* (Harper, 2014). It is used in various fields of study to denote a wide range of concepts, from legal meanings to chemistry abbreviations. Within the field of language learning *ab initio* level students are assumed not to have any proficiency in the target language. In order to teach students at this level it is necessary to equip them with the rudiments of their intended target language, such as commonly occurring phrases and words, a basic knowledge of the phonological system of the language, prominent features of the languages writing system (such as the use of acute accents which are used in Irish for example), and their phonological counterparts and so on. This is an especially important consideration for lesser used or less commonly taught languages (Gor and Vatz, 2009).

The CEFR provides language educators, and indeed students who possess effective metacognitive strategies, with an outcome-based roadmap for the effective development of *ab initio* learners' language skills. The framework states that there are six levels of language learners ranging from C2 which is the level of a native speaker or highly proficient speaker, to A1 which is defined as a basic user of the language, the place where an *ab initio* learner starts (Europe, 2001). The framework details the various outcomes of each language skill (reading, writing, listening, and speaking) that an *ab initio* learner must develop to become an A1 learner and then what they must do to progress to A2 and so forth (Europe, 2001). The framework is flexible enough to allow for the utilisation of various pedagogical strategies for language instruction such as communicative and constructivist learning strategies (Little, 2009). An additional benefit of using the CEFR is that it allows for comparisons to be made between different language courses in different educational contexts (North, 2014). Lastly, the CEFR is used in this study to inform the design of the syllabus of the BL course for *ab initio* learners.

From the point of view minority language learning or *less commonly taught languages* (LCTLs) it can be difficult to progress through the levels outlined in the CEFR as opportunities to interact with the language outside the classroom can be quite limited (Gor and Vatz, 2009, Nic Giolla Mhichíl et al., 2014a). This can lead to poor development of the listening skill as a lack of contact with the target

language contributes to the continuation of phonological deafness as highlighted by Mushangwe (2014). Furthermore, the listening skill contributes to the development of the speaking skill as it is the main medium by which the language is acquired (Nunan, 1997). The speaking skill's development is dependent on, among other things, vocabulary acquisition, grammatical awareness and the opportunity for social interaction (Florez, 1999), either asynchronously or synchronously.

1.3 Background research on ab initio language learners in blended learning environments

The importance of integrating information communication technology (blended learning) into education is currently acknowledged across Europe (Council of the European Union, 2014), yet as mentioned there is a lack of pedagogical guidance in relation to how this can be achieved effectively in relation to ab initio language learners (Directorate-General of Education and Culture, 2016, European Commission, 2014). This statement is also made in light of the author's analysis of several major learning journals.

The author investigated six major academic language learning and technology journals to identify research related to ab initio *blended language learning* (BLL). The journals searched by the author were the: *ReCALL Journal*, *Journal of Language Learning and Technology*, *Journal of Computer Assisted Language Learning*, *Language Learning Journal*, *Journal of Studies in Second Language Acquisition (SLA)*, and *the Journal of Learning, Media and Technology*. These journals were selected based on their global ranking according to the SCImago Journal Rank (SJR) Indicator and their relevance to the research related to this thesis. The SJR indicator uses Google's PageRank algorithm to rank academic journals from the year 1996 forward that are contained in the Scopus database provided by Elsevier (SCImagojr.com, 2018). The author used these journals to search the following terms: *Ab initio blended language learning (BLL)*, *beginner BLL*, *A1 BLL*, *BLL design* and *breakthrough BLL*. Additionally, the author also used variations of these terms such as ab initio BL instead of BLL. Finally, the search excluded papers that were published earlier than the year 2003 in order to identify recent research. The investigation of these journals revealed hundreds of papers relevant to BLL in

general yet not one journal contained papers that specifically related to the design and provision of BLL courses for ab initio language learners. The lack of papers identified within these journals using these terms suggests the need for continued research in the field of BL design for ab initio language learners specifically.

1.4 Scope of the thesis

The qualitative study presented here addresses the research question; *What Contradictions emerge in an ab initio blended language learning course?* In order to investigate this research question, the author conducted a study of ab initio language learners' activity over the duration of a six-week introductory Irish language course at Carnegie Mellon University, Pittsburgh, USA. The study closely follows methodological procedures developed by Prof. Françoise Blin which she used in her CHAT study on learner autonomy within two French language courses at Dublin City University (2005). The thesis also investigated the following sub-questions:

- What learning objects did the participants pursue over the duration of the ab initio BLL course?
- What actions did the participants engage in to pursue their learning objects?
- What elements of the activity system contributed positively to the participants' learning outcomes?
- What specific levels of contradictions emerge over the duration of the ab initio language course?

The activity theoretical framework developed by Blin (2005) proposes studying language learners' activity within technology rich language courses at both collective and individual levels. In order to pursue this type of study it is necessary to take the weekly sub-activity systems that constitute the overall BLL course as the unit of analysis. This study attempts to replicate Blin's (Ibid) methodological approach in the context of a BL language courses for Irish ab initio learners. The author designed the course by initially defining the learning objectives of the course using the CEFR, namely the topics laid

out from level A1 (CEFR, 2011). At the commencement of the course the motivations of the participants for taking the course were also factored into the course's design. The design of the course was also heavily influenced by recommendations from researchers in the field of CHAT, CALL and BL (Blin and Jalkanen, 2014, Neumeier, 2005, Chapelle, 2009, Jonassen and Rohrer-Murphy, 1999).

The investigation of complex learning environments such as a BL course using CHAT as an underlying theoretical framework has been identified as a uniquely methodologically challenging task (Yamagata-Lynch, 2010). This problem has existed for some time. Vygotsky (1978: 65), whose work has greatly influenced CHAT and *Sociocultural Theory*, stated that the search for methods to understand different forms of human psychological activity is one of the most important problems faced by researchers. This study seeks to reuse a previously tested method in order to add to the discourse surrounding the investigation of ab initio BL environments.

1.5 Thesis outline

Chapter 2 begins by introducing and defining the concept of BL, and more specifically, the concept of BLL. Pedagogical approaches to achieving BLL are also discussed in Chapter 2. During the discussion of BLL the primary subfields of academic research that impact on the provision of language education within a blended environment are highlighted, namely; SLA and CALL. In the discussion of SLA, a definition and overview are provided. The dominant SLA theories are presented as a way of introducing the various pedagogical approaches that are used by educators to facilitate language learning. The remaining portion of the chapter defines CALL and provides an overview of the historical development of the field. This is done as a way of illustrating the link between the development of CALL and the evolution of different approaches to SLA. The current state of CALL is then described as well as CALL's current potential for enhancing language learning.

Chapter 3 introduces the underlying theoretical framework of this study; CHAT. CHAT plays an important dual role in this study in that it guides the research methodology used to study the ab initio BL course but also to design the BL course. The chapter begins by providing a detailed description of

the historical origins and evolution of CHAT. The applicability of this framework to studying BL environments is then considered. The chapter concludes by illustrating how CHAT can be used in designing blended environments for language learning purposes. The primary function of Chapter 3 is to provide a grounding for the discussion of the methodology developed to pursue the study's research question.

Chapter 4 describes the development of the study's methodology. This chapter begins the audit trail for the study as it functions to document the developmental steps that were taken in the design of the research instruments and procedures that were adapted from Blin's original study. Chapter 4 details the aims of the study and presents qualitative research as the most appropriate approach to fulfilling the study's methodological requirements. The unit of analysis and the boundaries of the study are then defined as well as the development of the study's data collection techniques and research instruments. This chapter also presents the ethical considerations related to this study and the recruitment of research participants. The chapter concludes by presenting methods for empirical analysis.

Chapter 5 provides for the beginning of the empirical analysis by describing the way in which the ab initio Irish language course was designed. This chapter also describes the larger cultural and historical context of the research site. A theoretical representation is then provided in order to define the beginning of the study. Chapter 5 concludes by detailing the CHAT-based coding scheme used to code data collected during the main study in order to construct the evolving activity system and various sub-activity systems of the BL course.

Chapter 6 describes the implementation of the CHAT-based coding scheme. The chapter commences by providing an overview of the study's corpus and the procedures that were followed to compile this corpus. The individual elements that constituted the overall activity system of the course are then identified. Building on this discussion the participants' actions along with the context for those actions are then discussed. Leading on from this discussion a representational model of the language course's

activity system is illustrated for the reader. Using this model as a reference, the various contradictions that emerged within the language course's activity system are explored.

Chapter 7 concludes the research presented in this thesis by revisiting the study's research questions and sub-questions. The study's limitations are also presented in this chapter. Finally, areas for future research are identified.

Chapter 2 Blended Learning, Second Language Acquisition, and Computer Assisted Language Learning: a literature review

This chapter begins by defining *blended learning* (BL) and describes its general effectiveness for enhancing various components of the learning process. The discussion then proceeds to consider BL in the specific context of language education. During this discussion the pedagogical approaches used by practitioners to pursue this form of language education are identified. The major fields which impact on blended learning are also identified in this section and include second language acquisition and *computer assisted language learning* (CALL). Second language acquisition (SLA) is discussed in Section 2.2. This section compares and contrasts the primary theories in SLA research. Building on this discussion, Section 2.2.7 considers how SLA can be translated into principles to inform language teaching practices and to inform the design of language courses. Section 2.3 discusses the historical development of CALL as a field of research and illustrates its link to SLA and BL. Section 2.3 also provides an overview of the current state of CALL. The chapter concludes by considering the benefits of CALL for enhancing learners' natural language skills in Section 2.4.

2.1 Blended Learning

This section functions to define BL and to provide a general overview of its associated benefits. BL is a much used buzzword in education today yet according to Vanslambrouck et al. (2018) there is a lack of insight among teachers regarding the pedagogical approaches to it and varieties of online teaching resources. Brown (2015: 2) describes blended and online learning among educators as 'a bit like teenage sex. Everybody says they're doing it but in reality very few really are: and those who are doing it aren't doing it very well.' Siemens et al., (2015: 17) view BL as its own special form of learning 'that draws from both distance and traditional instruction and provides for their pedagogically sound integration.'

CALL is a primary component of BL. According to Neumeier (2005: 1):

The approach of blending CALL applications with face-to-face teaching and learning is as old as CALL itself. In fact, most language learners experience CALL within a BL environment. Therefore, the influences that shape the learners' perception of CALL

emanate from their experience gained from learning with a combination of CALL and face-to-face teaching.

It is important to state that these fields are not treated as being one in the same, as CALL can be engaged in by a language learner independently of a formal blended learning setting and has existed as a distinct field of study for half a century (see Section 2.3). Additionally, In order to effectively use blended learning as an approach to education it is fundamentally necessary to understand the concept this term represents.

BL is broadly defined as the combination of face-to-face instruction with some form of online or computer-mediated learning activity (Bernard et al., 2014). Importantly, BL is distinct from purely online or distance learning programmes such those offered through MOOCs (Naidu, 2013). Students within BL courses primarily study on-campus as opposed to students using MOOCs or other distance learning courses who primarily study off-campus (Daniel, 2016). The term BL when used in this thesis will represent this broad concept.

Among researchers, there is much debate as to what constitutes BL or *hybrid learning*, as it is sometimes referred to (Martyn, 2003, Canner, 2010, Graham, 2013). Delfino et al. (2005: 1) state that:

The expression blended learning has been used with a variety of meanings to refer to different kinds of combinations of instructional modalities (or delivery media), of instructional methods, or of online and face-to-face instruction.

King (2016: 2) remarks that at its simplest interpretation;

...blended learning' refers to every time teachers mix different media (e.g. print, audio, and video) with classroom interaction, maximising authentic input in order to support learners' output and skills development. As such, blended learning has more or less always existed, although the term itself is a mere 15 years old at most, and is now understood to mean a rich, supportive learner-centred learning environment where the 'right blend' is synonymous with effective learning (and teaching).

BL offers many advantages to education and is a form of learning that when implemented under the right conditions has been shown to work across a large spectrum of fields and industries (Thorne, 2003, Martyn, 2003, Alim, 2007). The application of BL to various fields is possibly one of the reasons

the concept is so hard to define precisely. Within different fields of study, different learning resources and pedagogical approaches are used in the pursuit of a specific goal. Examples of specific learning resources being used in traditional contexts for specific purposes include; calculators or protractors for mathematics and bilingual dictionaries for language learning. Due to the proliferation of digital technology;

The potential of blended learning is almost limitless and represents a naturally evolving process from the traditional forms of learning to a personalised and focused development path.

(Thorne, 2003: 5)

Personalised and focused development paths are facilitated in BL through the use of technology that expands the physical classroom virtually. This enables learners to concentrate and build on their interests, requirements, objectives and strengths (Senior, 2010). Numerous papers cite the advantages of BL courses for learners such as increased time spent learning, better time management and increased interaction with instructors and teachers (Young, 2001, Garnham and Kaleta, 2002, Hensley, 2005, Poon, 2013, Trinder, 2016). Researchers point out that learners in BL courses perform better overall than in fully face-to-face or fully online courses (Dziuban and Moskal, 2001, Martyn, 2003, Twigg, 2003, Helms, 2012). Additionally, evidence indicates that learner retention and satisfaction rates are higher in blended courses than more traditional courses (Dziuban and Moskal, 2001, Vaughan, 2007, Owston et al., 2013). Finally, in order to create a happy blend of student-teacher conversations and online learning, Daniel (2016: 17-18) states that there two important ways in which to make blended education more effective in the 21st century:

First, students need to engage more fully with independent work. Online technology can help them do this and must be used intensively to free up time for students to prepare assignments and for teachers to use their interactions with students over their assignments as a prime vehicle for teaching. Second, teachers must help students, via apprenticeship style sessions and commentary on their assignments, to develop skills and acquire academic knowledge.

This presents an important consideration for BL designers and researchers.

2.1.1 Blended language learning

For the purpose of this study it is necessary to define the concept of BL in relation to language education. *Blended language learning* (BLL) is a subfield of BL (Hinkelman, 2018). CALL is a primary component of BLL. According to Neumeier (2005: 1):

The approach of blending CALL applications with face-to-face teaching and learning is as old as CALL itself. In fact, most language learners experience CALL within a BL environment. Therefore, the influences that shape the learners' perception of CALL emanate from their experience gained from learning with a combination of CALL and face-to-face teaching.

It is important to state that these fields are not treated as being one in the same, as CALL can be engaged in by a language learners independently of a formal blended learning setting and has existed as a distinct field of study for half a century (see Section 2.3). BLL is also heavily influenced by research conducted in the fields of *second language acquisition* (SLA) theory and pedagogy (Kern et al., 2008, King, 2016). SLA is discussed in Section 2.2. The term BLL represents a particular approach to BL that is sensitive to the unique set of circumstances required to create opportunities for language acquisition and for learner agency to use or pursue the study of a target language (Blin and Jalkanen, 2014). Agency here refers to an individual learner's or group of learners' capacity to act (Ahearn, 2001). Examples of these opportunities include the acquisition of new vocabulary or pronunciation practice with others or with technology.

Building on the definitions of BL offered above the author defines BLL as a mixture of online and face-to-face interactions that facilitate the development of learners' language skills and competencies. These types of interactions include but are not limited to, scaffolded exercises and activities, brief lectures, discussion groups and conversation circles. Furthermore, BLL facilitates the practical application of these skills and the social construction of knowledge in both online and physical spaces. Finally, BLL is ultimately dependant on learners taking a number of independent actions using various physical artefacts and/or digital technologies in the pursuit of a learning goal.

All definitions of blended learning, or teaching, implicitly recognize... that learner self-direction, active involvement, and motivation are critical.

(Johnson and Marsh, 2014: 24)

The purpose of BLL is to not to repeat what has been covered in the physical classroom but rather to provide students with novel avenues to expand and consolidate their knowledge in different yet converging ways (King, 2016). Garrison and Kanuka (2004) state that no two blended designs are the same. For example, different designs can place a high degree of emphasis on technology use or use it only as a supplement to classroom activities. Ultimately, the purpose or the goal of the course along with the current technologies that are available to the course designer or language teacher influence the final design of a course's blend (Blin and Jalkanen, 2014).

BLL can also be pursued from a variety of pedagogical perspectives, though BLL courses are usually eclectic in nature. Neumeier (2005: 10) asserts that within BLL courses;

Teachers can choose from a wide variety and combination of teaching and learning methods and approaches (e.g. Communicative Language Learning, Grammar Translation Method, Community Language Learning, Task Based Learning, Problem Based Learning, Silent Way and Total Physical Response, to mention but a few) in order to meet the needs of their learners.

Task based learning and teaching (TBLT) approaches in BLL course designs have been shown to be particularly effective in promoting language learning activity (Knight et al., 2017, Abrams, 2016). Bygate et al. (2001: 11) define a task within a language educational context as “an activity which requires learners to use language, with emphasis on meaning, to attain an objective.” Abrams (2016: 2) states that TBLT is “is a principled approach to L2[second language] teaching that emphasizes using real-world language that is also meaningful for learners.”

Hinkelman (2018) also cites the advantages of using TBLT in BLL environments. Additionally, he posits that *flipped learning* along with TBLT are effective strategies for enhancing BLL courses. According to the Flipped Learning Network, flipped learning is defined as a;

...pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter.

(2014: 2)

In terms of language learning, students engage with preparatory material prior to class in order to free up face-to-face time for more language production and language reinforcement activities under the guidance of the language teacher (Bergmann and Sams, 2012).

As mentioned BLL courses can take various forms and can be implemented using a variety of technologies and pedagogical approaches. Garrison and Kanuka (2004: 97) state that;

The real test of blended learning is the effective integration of the two main components (face-to-face and Internet technology) such that we are not just adding on to the existing dominant approach or method. This holds true whether it be a face-to-face or a fully Internet-based learning experience. A blended learning design represents a significant departure from either of these approaches. It represents a fundamental reconceptualization and reorganization of the teaching and learning dynamic, starting with various specific contextual needs and contingencies (e.g., discipline, developmental level, and resources).

In order to expand this discussion of BLL it is necessary to examine its two primary components. These components are the pedagogical approaches to instructed SLA and the CALL technologies that are available to support language learning.

2.2 Second Language Acquisition

SLA is the process of how people acquire or learn a second language. SLA is a subfield of applied linguistics and has been the subject of much research and study over the past half century (Chomsky, 1957, Krashen and Terrel, 1983, Ellis, 1993, Nassaji, 2012). It is also a field that is closely related to cognitive psychology and education (Doughty and Long, 2008). According to Kern et al. (2008), SLA theory has played a central role in the development of CALL (see Section 2.3). Furthermore, SLA theory has had a major impact on the development of language pedagogy (Ellis, 2005). As a consequence of this, SLA may be seen as a cornerstone of BLL as it impacts language teachers' pedagogical approaches in class and the selection of CALL technologies that are provided to students as a part of a language course (Chapelle, 2009).

Numerous perspectives are presented by various researchers and theorists in the field of SLA (Song, 2018). Larson-Freeman and Long (1991: 480) state that there are at least 40 different theories, models, perspectives, hypotheses or metaphors in the SLA literature. Each perspective offers its own strengths

and weaknesses in terms of language education and supports the use of certain type of syllabi or pedagogical approach over others (Tu and Talley, 2016, Ellis, 2008b). Different researchers assert that SLA can be achieved through naturalistic approaches while others propose instructed approaches to SLA (Larsen-Freeman and Long, 2014). Additionally, other researchers propose an eclectic mix of both to further language acquisition (Doughty and Long, 2008). No theory or hypothesis is without criticism by SLA researchers and the second language teaching community. Each hypothesis represents one lens with which to understand different elements of the SLA process. Pedagogically, each theory offers benefits to a certain level of learner or group of learners (Krashen, 2003). The purpose of this section is to introduce the dominant theories and concepts that have emerged in recent decades and the main SLA terms and concepts contained therein. SLA hypotheses are discussed in order to convey to the reader the different ways in which people may acquire or learn a second language. Additionally, this section functions to introduce the impact SLA research has had on language instruction. These are important considerations in this study as recommendations from SLA researchers were used to inform the design of the BLL course *Introduction to Irish*. Following the discussion of SLA, the development and current state of CALL is discussed.

2.2.1 SLA hypotheses

Krashen proposed his well-known theory of SLA, the *Monitor Model*, in the early 1980's which has since had a substantial impact on second language research and teaching (Schütz, 2017). Brown (2000) describes Krashen's model as a group of interrelated hypotheses or claims about how people become proficient in a second language. Krashen's (2009) *theory of SLA* is comprised of five hypotheses. These are the;

- *Acquisition-learning distinction*
- *Natural order hypothesis*
- *Monitor hypothesis*
- *Input hypothesis*
- *Affective filter hypothesis*

As a consequence of Krashen's attempt to provide a holistic view of SLA he has provoked much criticism and controversy (Zafar, 2011, Long, 1990, Liu, 2015, Swain and Deters, 2007, Gregg, 1984), for example: in his critique of the model, McLaughlin (1989) asserts that these hypotheses are deductive and attempt to provide a holistic picture of SLA and language learning. Nevertheless, Krashen's monitor model serves as a useful springboard to introduce the main concepts and perspectives in this field. Furthermore, these theories are included as a way of introducing the reader to key underlying pedagogies that informed the design of CALL technologies since its inception. Forms of these older technologies continue to exist among new CALL technologies (see Section 2.3). The author will discuss each one of Krashen's hypotheses mentioned above and present alternative hypotheses as a way of introducing the reader to the main debates within the field of SLA. References will also be made to SLA theorists working from a sociocultural perspective which is compatible with this study's theoretical framework (Cultural Historical Activity Theory, see Chapter 3) (Lantolf et al., 2015).

2.2.2 The acquisition-learning distinction

The *acquisition-learning distinction* is among Krashen's first SLA hypotheses and according to Krashen (2009) is one of the most important theories within the monitor model. The hypothesis states that language acquisition either occurs through learning or acquisition and that acquisition is more important to SLA than learning (Lightbown et al., 1999). That is that learners benefit more from exposure to authentic language environments. This hypothesis is based on the notion of the *language acquisition device* (LAD) proposed by Chomsky (1957). The LAD hypothesis attempts to explain the phenomenon of children's innate ability to acquire a language. Pedagogically, Krashen is recommending this more implicit approach to language acquisition. Essentially, he is suggesting that people while attempting to learn a second language should try to mimic the way in which children acquire their first language via immersion in the target language.

Many SLA theorists and language teachers offer a contradicting view supporting more explicit forms of language instruction to encourage SLA processes among second language learners (Dutro et al.,

2009, Helman, 2012, Hulstijn, 2005). The acquisition-learning distinction hypothesis does not fully account for the metacognitive tools available to the second language learner that are accessible to her through her first language. With reference to adult second language learners, Ellis (2008a) states that:

Adult acquisition of second language (L2) is a different matter in that what can be acquired implicitly from communicative contexts is typically quite limited in comparison to native speaker norms, and adult attainment of L2 accuracy usually requires additional resources of explicit learning.

(Ellis, 2008a: 1)

Ellis's position here is in clear contrast with Krashen's as Ellis is suggesting that explicit learning resources are not only beneficial to learners but a requirement for adult learners.

Additionally, there is a problem with the definitions used by Krashen in this hypothesis.

One of the problems with the Acquisition/Learning Hypothesis is that Krashen plays fast and loose with his definitions. 'Acquisition' is a process leading to competence; 'learning' is evidently a state ('knowing the rules, being aware of them, and being able to talk about them'). If Krashen means that a given state cannot become a process, he'll get no argument from me, or from anyone else. But the position that he is attacking is the position that learning (not 'learning') can lead to acquisition (not 'acquisition') of what one has learned. Krashen is simply wrong when he says, 'Some second language theorists have assumed that children acquire, while adults can only learn.' He is confusing learning with 'learning'; I know of no one who has maintained that adults can only 'learn', and to argue against such a position is to attack a straw man.

(Gregg, 1984: 85)

Furthermore, Chomsky (1975) has also questioned the ability of adults to access LAD which again supports an explicit approach to language instruction. He states that the ability of individuals to access LAD is diminished over time. Additionally, looking at SLA from a sociocultural perspective, Nassaji (2016) found that language educators who engaged in explicit language instruction that focused on form, meaning and communication showed positive effects on learners second language accuracy and their levels of language acquisition. Nasasaji (2010:926) also adds that:

Explicit knowledge not only promotes noticing but also helps learners to monitor their production and hence produce accurate output, which can then serve as auto-input to the implicit knowledge system.

This is an important consideration for this study as it supports the use of appropriate language learning materials suitable to the learner's level. Moreover, based on the discussion of the acquisition learning distinction the need for a teacher or person of more advanced ability in the target language is highlighted. This is an important consideration in this study as it highlights the important role of the teacher within any a BLL learning environment. It also highlights the important role plays on a learner's language acquisition (see Section 2.2.4).

2.2.3 The natural order hypothesis

The *natural order hypothesis* assumes that there is predictable order in the way in which language learners acquire a second language's grammatical structures (Krashen and Terrel, 1983, Krashen, 1988). It proposes that the natural order of language acquisition is allowed to take place when students are permitted to make errors without explicit correction by the student's language instructor. In the context of English language learning with children, Dulay and Burt (1974) found strong support for the existence of a universal child language learning strategy in their grammatical morpheme studies. These findings were also consistent with the findings of previous research conducted by Dulay et al. (1973) in the context of child language learners. In order to study this phenomenon further with adult English language learners Bailey et al. (1974) used Dulay et al.'s (1973) Bilingual Syntax Measure. Their findings indicate that children and adults use common language learning strategies and similar data processing procedures. There are a number of criticism of this hypothesis. Firstly, Krashen again fails to define what the concept behind the term *structure* is in relation to the natural order hypothesis (Gregg, 1984). Another problem with this hypothesis is that it is predominantly based on studies investigating the acquisition of English as a second language. The assumption that all learners approach learning a language in the same way has been shown to be problematic (McLaughlin, 1989, Long, 1990). Furthermore, the morpheme order studies upon which this hypothesis is based on include a relatively small number of grammatical morphemes.

...the morpheme order studies investigated a limited number of grammatical morphemes (in general, 11 were considered). From these studies, researchers extended the implications to acquisition in general. Whereas it may be the case that there is a predicted

order of the acquisition of English morphemes, it is not the case that all of acquisition takes place in a predicted order....

(Gass and Selinker, 2013: 135)

Regardless of the criticism of this hypothesis it is logical to assume that certain language structures or topics such as those identified by the CEFR will be learned or acquired before others. Within the context of this study the author posits that materials and exercises in the BLL course should align with the 'milestones' defined by the CEFR. With regard to CALL technologies such as online language learning platform their designs assume a natural order in language learner's acquisition as they plan and design content for language learning platform's syllabus (see Section 2.4 and Section 5.2.7). Additionally the notion of a natural order or predictable part is also supported by observation for sociocultural theorist working from an SLA perspective. Lantolf et al., (2015) inform us that:

Learners output (speech) often follows predictable paths with predictable stages in the acquisition of a given structure.

The natural order hypothesis is dependent on the understanding of the input hypothesis which is discussed next.

2.2.4 The input hypothesis

The *input hypothesis* states that humans acquire a language by understanding messages (Krashen, 1992). With specific reference to the input hypothesis, Ellis (2008a) states that:

In Krashen's theory, SLA, just like first language acquisition, comes naturally as a result of implicit processes occurring while the learner is receiving comprehensible L2 input. The input hypothesis was the theoretical motivation behind natural and communicative approaches to instruction.

(ibid:2)

As mentioned this hypothesis is dependent on an understanding of the natural order hypothesis. Simply, the input hypothesis states that learners follow a natural order while acquiring a second language and that this only occurs when they engage with second language input that is just beyond their current language level (Krashen, 2009, Krashen, 1988). Krashen (1992) states that this comprehensible input helps students to acquire grammar structures with the help of context, the learner's knowledge of the world and previously acquired competencies in the target language. This

view of language acquisition is similar to Vygotsky's (1978) view on learning, known as the *Zone of Proximal* development, that is:

...the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers.

(ibid: 86)

It is also similar to the popular concept of scaffolding in teaching as proposed by Wood (Fernández et al., 2001). According to the Great Schools Partnership (2015):

In education, scaffolding refers to a variety of instructional techniques used to move students progressively toward stronger understanding and, ultimately, greater independence in the learning process. The term itself offers the relevant descriptive metaphor: teachers provide successive levels of temporary support that help students reach higher levels of comprehension and skill acquisition that they would not be able to achieve without assistance. Like physical scaffolding, the supportive strategies are incrementally removed when they are no longer needed, and the teacher gradually shifts more responsibility over the learning process to the student.

The input hypothesis is subject to similar criticism as Krashen's other hypotheses in relation to its terminology. McLaughlin (1989) highlights that there is a lack of clear definition surrounding the term 'comprehensible input' and furthermore it has been shown that Krashen uses this term to represent different concepts (Liu, 2015). Based on Krashen's (2003) work the concepts behind the term can be understood as 'comprehensible' and 'comprehended.' One is a process where as the other is an outcome of activity.

One of the most controversial aspects of comprehensible input in relation to the natural order hypothesis is the concept of the *silent period* (Brown, 2000). Krashen (2009: 27) states that:

...the silent period in terms of the input hypothesis is straight-forward-- the child is building up competence in the second language via listening, by understanding the language around him. In accordance with the input hypothesis, speaking ability emerges on its own after enough competence has been developed by listening and understanding.

This view discourages oral production among ab initio language learners. Taking into account student anxiety one can understand the value of this approach, yet it is problematic in that it can prevent the development of a student's speaking skills by delaying oral production for too long (Brown, 2000).

There is also the issue of output that Krashen has largely ignored (Swain and Lapkin, 1995). Swain and Lapkin (1995: *ibid*) argue that the problems that may occur while a learner is speaking or attempting to speak can in turn trigger mental processes that are involved in language learning. Loschky (1994: 3) states that if communicative demands are put on the learner to make their oral production more comprehensible to an interlocutor, the learner may test and improve her understanding of the target language. This in turn supports the position that output is an essential part of the SLA process.

The notion of incomprehensible input is also overlooked by Krashen's hypothesis. Incomprehensible input is vital to SLA in that it pushes learners to modify the rules of their own interlanguage to accommodate newer and more advanced structures (White, 1987). Bialystok and Sharwood-Smith (1985) state that the term *interlanguage* can be used as a catchall term to describe all aspects related to second language learning. Interlanguage may develop a part of a teacher's intervention or through the action of noticing on the learner's part.

Noticing a problem 'pushes' the learner to modify his/her output. In doing so, the learner may sometimes be forced into a more syntactic processing mode than might occur in comprehension. Thus, output may set 'noticing' in train, triggering mental processes that lead to modified output.

(Swain and Lapkin, 1995: 372-373)

Output also contributes to the SLA process (Loschky, 1994: 305). Furthermore, those working from a sociocultural framework stress the importance of collaboration and communication (output) in the target language and the mother language to further learners' language acquisition (Cook 2016). The use of the mother tongue as a tool for SLA is identified by sociocultural researchers as a powerful learning tool when used appropriately. Input in the target language is also identified in the sociocultural theory as an obviously vital part of the SLA process as a good deal of this acquisition happened incidentally (Lantolf et al., 2015).

Based on this discussion, the author concludes that learners require opportunities for input and output and that these should play a large role in design of a BLL course. The author also posits that learners should also be provided with space in a course to explore the second language from a meta-cognitive perspective. This can potentially be accomplished by allocating time in face-to-face classes

for learners to ask questions of the teacher. Additionally, by incorporating CALL resources that facilitate these noticing actions into a course the learner may be able to trigger mental processes that lead to modified output. For example, these mental processes could be engaged through a listening task that is supported by interactive software for quick lookup of vocabulary such as an annotated reading gloss. Regardless of the final approach used by the teacher, language input must be accessible to the learners while also challenging enough to encourage them to reflect on their progress. Additionally, creating opportunities for language output are of equal importance in the development of a learner's overall language development. The relationship between learning and acquisition in Krashen's Theory is accounted for in the monitor hypothesis which is discussed next.

2.2.5 The monitor hypothesis

The monitor hypothesis clarifies the relationship between language acquisition and language learning. It also defines the effect or influence that the latter has on the former (Schütz, 2017, Liu, 2015). The monitor can be understood to be an internal device that mediates the learner's knowledge of the second language's grammar structures and the learners' ability to produce the language, both orally and in written form. The essence of the monitor hypothesis according to Liu (2015) is the person's ability to produce target language utterances that derive from her acquired competence (subconscious knowledge) while learning. Schütz (2017) states that:

The monitoring function is the practical result of the learned grammar. According to Krashen, the acquisition system is the utterance initiator, while the learning system performs the role of the 'monitor' or the 'editor.' The 'monitor' acts in a planning, editing and correcting function when three specific conditions are met: that is, the second language learner has sufficient time at his/her disposal, he/she focuses on form or thinks about correctness, and he/she knows the rule.

(ibid: online)

Gass and Selinker (2013) also point to the effects that these conditions can have on language learning and acquisition. Additionally, they highlight that even when these conditions are met the monitor may still not be activated by the learner.

Individual learners will use the monitor in different ways according to their individual needs (McLaughlin, 1989, Krashen, 2009). There are three different forms of monitor use that a learner may

engage in. These are monitor over-users, monitor under-users and the optimal monitor user (Wen and Clément, 2003).

Over-users of the monitor are always monitoring their language production and are often over concerned with correctness; as a result, they might not speak with fluency. Under-users do not use their conscious knowledge and are not concerned with error correction. Optimal users use “the monitor” appropriately when the conditions are met, which results in the increase of the accuracy of their output. Optimal users should be the pedagogical goal of foreign language educators.

(Bollinger, 2017: 25)

Different pedagogical approaches can influence the type of monitor use that students may engage in (Wen and Clément, 2003). For example, more restrictive or traditional teaching styles such as a behaviourist approach may encourage monitor over use while more communicative approaches could potentially lead to monitor under-use resulting in the emergence of type of pigeon interlanguage. The emergence of *Gaelscoilis*¹ in immersive Irish language schools is an example of this type of interlanguage. The monitor can also impact on the student’s affective filter which may in turn negatively or positively impact on the individual’s language acquisition. In the context of a BLL course, optimum monitor use could be facilitated by providing appropriate levels of feedback and support in in-class communication exercises. This could be done, for example, without placing too much emphasis on correction except in circumstances when the learner makes a substantial error resulting in miscommunication. Additionally, a portion of a class’s time can be allotted to allow learners to ask questions of the teacher and indeed each other. This time may be used to facilitate the student in developing their metacognitive learning strategies. Based on the observation of student activities and difficulties in the language course, the language teacher could also add online language learning resources to address students’ needs. Grammatical lessons or pronunciation exercises using language learning apps for example may highlight important areas of study and reflection for learners. These areas may then be planned for in future face-to-face classes to provide additional opportunities for students. Other factors that may influence the type of monitor used by a learner are affective filters.

¹Gaelscoilis is a type of interlanguage that does not share the common core of all traditional types of Gaeltacht Irish according to Ó HIFERNÁIN, T. & Ó MURCHADHA, N. 2011. The perception of Standard Irish as a prestige target variety.

These affective filters are accounted for in Krashen's model in the *affective filter hypothesis* which is discussed next.

2.2.6 The affective filter hypothesis

Comprehensible input is conditioned by the affective filter. Krashen (2009) states that affective variables such as an individual's motivation, self-confidence and anxiety impact on language acquisition by either facilitating or preventing access to comprehensible input. The affective filter hypothesis was initially proposed by Dulay and Burt (1977), and was subsequently incorporated by Krashen into his monitor model (Krashen, 1988). This particular hypothesis is subject to less criticism than the other hypotheses included in Krashen's model (Hammond, 1990). This is possibly as a result of the hypothesis' support by studies of learning both inside and outside of SLA. Krashen (2009) states that:

...the true causative variables in second language acquisition derive from the input hypothesis and the affective filter--the amount of comprehensible input the acquirer receives and understands, and the strength of the affective filter, or the degree to which the acquirer is "open" to the input.

(ibid: 9)

This affective filter that Krashen hypothesises thus acts as a type of cognitive barrier in processing comprehensible input with the LAD (Liu, 2015).

There are multiple variables that can impact the affective filter. The most prominent variables are; motivation, self-confidence, attitude and anxiety (Park and Lee, 2005, Du, 2009). Krashen argues that these have an impact on language acquisition rather than language learning, though variables such as anxiety have been observed to affect people's performance in other areas of life also (Bandura, 1994). According to Pajares (1996) self-efficacy plays an important role in the motivation and self-confidence of learners. (Bandura, 1993) states that perceived self-efficacy contributes to cognitive development and that a learner's beliefs in their efficacy to regulate their own learning is an important contributor to their academic development.

These affective variables are more prominent in the SLA process than in other areas of learning (Rubio, 2007). In practice the impact of these variables can be achieved by creating learning environments

that support students' needs, empower students to access learning artefacts and by creating a positive atmosphere in the classroom that boosts students' self-confidence (Rubio, 2007, MacIntyre, 1995). Students' self-confidence may be seen as one of the most important affective filter variables in SLA. Generally speaking, self-confidence is the perception of one's ability to complete a task successfully.

A growing body of evidence suggests that one's perception of ability or self-confidence is the central mediating construct of achievement strivings.

(Council, 1994: 173)

This particular hypothesis of Krashen's suggests to language educators the importance of designing learning environment that develops a learner's self-confidence. This is another important consideration for the creation of a BLL course as it highlights the importance of creating a low anxiety, stress free language learning environment.

Building on the discussion of these SLA theories, the following section briefly discusses the impact that these theories have had on language teaching practices and considers an approach to mediate the various views on SLA.

2.2.7 SLA and language instruction

Pedagogically, SLA has been approached from a variety of theoretical positions since the 1940's (Sampson, 1997). An overview of the main theories of second language learning provided by Cohalan (2014) is presented in Table 2.1. Additional information has been added to the table to highlight key Theorist related to each theory.

Table 2.1 Outline of main theories of second language learning (Cohalan, 2014: 4-5)

Theory name	Popular	Brief explanation
Behaviourism	1940–1970	Learning is habit forming as a result of stimulus response conditioning.
Nativism	1970s	There is a language module in the brain which enables us to learn languages.
Krashen’s Model	1980s–present	SLA requires natural communication and interaction focusing on meaning and understanding rather than form.
Cognitivism	1990s–present	There is not a specific language module in the brain and second language learning is a conscious and reasoned thinking process with deliberate learning strategies.
Connectionism	2000s–present	Learners build up knowledge through exposure to linguistic cues which strengthen neuron connections. (For additional information on Connectionism see Ellis (1998) and Kop and Hill (2008).
Noticing Theory	2000s–present	Learners only begin to acquire a language when they are aware of its input and notice ways in which structures differ between first and second languages. (For additional information on Noticing Theory see Dörnyei (2009: 158) and (Robinson, 1995))
Constructivism	2000s–present	Learning is social and interactive. It should involve two-way communication, build on prior knowledge, be interesting, be challenging, practical and involve action, experience and reflection. (For additional information on Constructivism (Richards and Rodgers, 2014) and Kaufman (2004))
Socioculturalism	2000s–present	All cognitive development is as a result of social interaction – learning is first socially mediated then internalised. (For additional information on Socioculturalism see (Swain et al., 2015) and Lantolf (2000))
Scaffolding Theory	2000s–present	A learner reaches greater learning with an expert in support with timely interventions than they could without. (For additional information on Scaffolding Theory see Wilson and Devereux (2014) and Pea (2004))
Visible Learning	2000s–present	Learning is dependent on the teacher and requires goal setting, active participation, context, support, practice, challenging activities and continuous visual feedback. (For additional information on Visible Learning see Yates and Hattie (2013) and (Hattie, 2008))

Table 2.1 illustrates that even today there is no general consensus among theorist regarding pedagogical approaches to instructed SLA. Additionally, Table 2.1 illustrates that older pedagogical approaches continue to exist alongside newer approaches to language learning. A comprehensive overview of different learning theories and key theorist employed in education and technology today is provided by Millward (2014) in his Concept map of Learning Theories. This was produced as a part of the Holistic Approach to Technology Enhanced Learning (HoTEL) project (HoTEL, 2018). In practical terms, this welter of opinion related to instructed SLA and the general use of technology in education is problematic in that it can potentially leave language teachers and course designers overwhelmed (Lightbown, 2000). Additionally, this particular problem is compounded by the fact that;

SLA researchers (themselves) do not agree on how instruction can best facilitate language learning.

(Ellis, 2008b: 1)

One approach to navigate the overwhelming amount of information surrounding SLA is to implement general principles that combine the various viewpoints of researchers and theorist working in this field. Ellis (2008b) proposes ten principles which are intended to guide language teachers' effort. These principles have been derived using the findings from various studies from researchers working from different SLA perspectives (Mai et al., 2013). The principles offer teachers and course designers a checklist of desirable features to include in the design of a particular syllabus or class. Ellis' principles help teachers and course designers to reflect on their roles within the classroom. These principles are shown in Table 2.2.

Table 2.2 Ellis' (2008b) Ten Principles of Instructed SLA

Principles of instructed SLA	
Principle 1	Instruction needs to ensure that learners develop both a rich repertoire of formulaic expressions and a rule-based competence.
Principle 2	Instruction needs to ensure that learners focus predominantly on meaning.
Principle 3	Instruction needs to ensure that learners also focus on form.
Principle 4	Instruction needs to focus on developing implicit knowledge of the second language while not neglecting explicit knowledge.
Principle 5	Instruction needs to take into account the learner's built-in syllabus.
Principle 6	Successful instructed language learning requires extensive second language input.
Principle 7	Successful instructed language learning also requires opportunities for output.
Principle 8	The opportunity to interact in the second language is central to developing second language proficiency.
Principle 9	Instruction needs to take account of individual differences in learners.
Principle 10	In assessing learners' second language proficiency, it is important to examine free as well as controlled production.

In the context of this study it is important to note that Ellis' (ibid) principles are in line with recommendations from sociocultural researchers in that they promote explicit language instruction and opportunities for implicit language learning (Lantolf et al., 2015) (See Section 2.2.2). Additionally, these principle support learners' use of the language for communicative purpose in line with recommendation from Cook (2016).

Implementing Ellis' principles within traditional pedagogical approaches to language instruction, such as the *Sheltered Instruction (SI)* or *Presentation, Practice, Production (PPP)* approaches, is a methodologically challenging task (Goldenberg, 2008, Criado, 2013). Markos and Himmel (2016) state that SI is an approach to teaching that aims to deliver language-rich, grade-level content area instruction in the target language in a way that is comprehensible to the learner and which supplements a larger educational language program. According to Maftoon and Sarem (2015):

PPP is a three-part teaching paradigm: Presentation, Practice and Production; based on behaviourist theory which states that learning a language is just like learning any other skill. The high degree of teacher control which characterizes the first and second stages of this approach lessens as the class proceeds, allowing the learner to gradually move away from the teacher's support towards more automatic production and understanding.

(ibid: 31)

Currently, the latter approach to instructed SLA, PPP, is the most prevalent approach particularly at lower level language instruction (Harmer, 2007). BLL (as discussed in Section 2.1) is an approach which can facilitate teachers and course designers in fulfilling Ellis's principles by utilising online language learning resources in order to free up class time for more opportunities for output and interaction (Ginns and Ellis, 2007). The importance of integrating information communication technology (i.e. blended learning) into mainstream education has been acknowledged by many in educational circles the world over and by international governmental organisations such as the European Union (Union, 2014). Unfortunately, as mentioned in Section 1.3, there is a lack of pedagogical guidance in relation to how this integration can be best achieved (European Trade Union Committee for Education, 2016, European Commission, 2014). Cultural Historical Activity Theory (CHAT), has been identified as one conceptual tool to help language teachers integrate and analyse CALL systems in blended language courses (Blin, 2010). CHAT is discussed further in Chapter 3.

The following section examines the development of CALL and the benefits CALL resources can offer to language educators and learners. The aim of the section is to inform the reader of the current state of CALL and to highlight the various roles it can play as part of a BLL course.

2.3 Computer Assisted Language Learning (CALL)

CALL forms an integral part of BLL. Levy (1997: 1) defines CALL as ‘the search for and study of the computer in language teaching and learning.’ Similarly, Egbert (2005: 3) defines CALL as an approach to ‘using computers to support language teaching and learning in some way.’ As mentioned in Section 2.1, CALL is usually experienced within a BL environment though CALL has existed as a distinct field of study in its own right since the 1960’s (Warschauer and Healey, 1998, Levy, 1997). Importantly, it must be noted that CALL is also experienced by learners independent of a physical environment as is evidenced by the massive numbers of students using language learning Apps such as Duolingo (Ó Doinn, 2016a, Ó Doinn, 2016b). Today, the word *computer* in CALL can be understood to represent a range of devices beyond the desktop computer which include smart phones, tablets and laptops, as well as the networks and peripheral technologies that connect them (Hubbard, 2009). The term CALL in this study therefore also includes the concepts of Technology Enhanced Language Learning (TELL) and Mobile Assisted Language Learning (MALL). Using the term CALL in this way is judicious in light of the rapid progress of technology in education and the proliferation of mobile computing platforms among the general population.

The purpose of this section is to provide suitable context for the research presented here. This section begins by describing CALL’s historical development and the different pedagogical approaches that influenced this development. CALL’s potential for enhancing various language skills and metacognitive language learning strategies are then considered. Furthermore, during this discussion the advantages and limitations of CALL as an approach to language learning are also considered.

This section does not discuss the CALL technologies used in this study. Specific software applications relating to this study are discussed in more detail in the description of the activity system of the BLL course in Chapter 5. According to Levy and Stockwell (2013: 2-3) both generic technologies (such as email and online video) and purposefully designed language learning technologies (such as a mobile language learning app) are used in CALL. The terms CALL technology or CALL resource when used in this thesis will represent any digital or computer based technology that can be used in the development of a learner's language competencies or knowledge in some way.

2.3.1 Historical and contextual overview of CALL

This section provides an overview of the historical development of CALL from its earliest years to its current state. CALL is not a new phenomenon. CALL initially emerged in the 1960s (Warschauer and Healey, 1998, Levy, 1997). The origins of CALL can be traced back further than the 60s as the idea of using computers or 'calculating machines' for education had existed for decades prior to its actual implementation (Bush, 1945). Since its first inception, several distinct CALL generations or approaches have emerged (Warschauer and Healey, 1998, Bax, 2003, Warschauer, 2004). Levy (1997: 1) argues that:

The nature of CALL at any particular time is, to a large degree a reflection of the level of development of technology.

With respect to Levy's insight, this is an overly simplistic view of the development of CALL. This view of CALL reduces the focus within the general field to a purely technologically orientated perspective. The current state of CALL is also a reflection of the dominant language pedagogies of the day (Chapelle, 2009). The development and evolution of technology does not automatically assume a causal outcome in research or practice relating to CALL, rather it provides the opportunity to engage in new learning processes and generate new outcomes (Warschauer, 2004).

As mentioned previously, CALL initially emerged as a field of research in the 1960s. Warschauer and Healey (1998) state that CALL was predominantly based on behaviourist principles at this

time and as such was termed Behaviourist CALL. As illustrated in Table 2.1, the behaviouristic learning model dominated language learning at the time of the inclusion of the first mainframe computers into the learning mix in the 1960s and 70s (Gallagher, 1971). In general, language acquisition at this time was thought to be dependent on habit formation facilitated by repetitive activities in line with behaviouristic principles (Sampson, 1997). The efforts of CALL practitioners were to support these principles and to facilitate largely drill and practice exercises in the target languages (King, 2016).

The computer was viewed as a mechanical tutor which never grew tired or judgemental and allowed students to work at an individual pace.

(Warschauer and Healey, 1998: 57)

Initial CALL research efforts were predominantly confined to specialists working at third level institutions (Ahmad et al., 1985). This is partially as a result of the expense of computers at this point in history. The most notable CALL initiatives to have emerged at this time were the PLATO (Programmed Logic for Automatic Teaching Operations) and the TICCIT (Time-shared, Interactive, Computer-Controlled Information Television) projects (Levy, 1997). Ultimately, CALL at this time was restricted on many levels in terms of access to CALL technologies by students and in terms of what students could achieve with these technologies where available (Butler-Pascoe, 2012).

As the pedagogical approaches to language learning evolved in the 1970s and 80s (See Table 2.1) so too did researchers' and language teachers' approaches to CALL.

It was against a backdrop of humanistic psychology and communicative linguistics of the 1970s that a demand for interactive and communicative uses of the computer for language teaching developed.

(Butler-Pascoe, 2012: 22)

Warschauer and Healey (1998: 57) state that Communicative CALL 'corresponded to cognitive theories which stressed that learning was a process of discovery, expression and development.' This is in line with a Vygotskian perspective on learning (Vygotsky, 1978). Vygotsky (1978) tells

us that learning happens in a social and historical context and within a zone of proximal development as mentioned in Section 2.2.4. The communicative approach stressed interaction as the means of instruction and the purpose of study (Spada, 2007, Savignon, 1987). Technologies in this period of CALL allowed students to uncover and explore patterns in the target language and also to engage in simulations (e.g. role playing, letter writing, etc...) These simulations in turn are said to have encouraged reflection and discussion among the learners. In communicative CALL, 'the focus was not so much on what students did with the machine, but rather what they did while working with each other while working at the computer' (Warschauer and Healey, 1998: 57).

Within this second generation of CALL, the main tool was the PC and the site of learning was usually a language lab. Elements of restricted CALL migrated from the mainframe to the PC and so elements of Behaviourist or Restricted CALL survived as a new generation of CALL came into existence. Bax (2003) is keen to point out how one generation of CALL can continue to survive while new technologies come into existence which facilitate another more advanced version of CALL. This is similar to the concurrent existence of older language pedagogies along newer approaches as noted by Cohalan (2014) (See Table 2.1). A defining feature of this generation of CALL is the continued non-integration of CALL technology with course syllabi (Bax, 2003). More recently, Prensky (2011) has observed that this non-integration remains a dominant feature of computers in education today.

2.3.2 Contemporary CALL

Currently we reside in the era of integrative CALL (Yamazaki, 2014). Integrative CALL:

...seeks both to integrate various skills (e.g., listening, speaking, reading, and writing) and also integrate technology more fully into the language learning process. In integrative approaches, students learn to use a variety of technological tools as an ongoing process of language learning and use, rather than visiting the computer lab on a once a week basis for isolated exercises (whether the exercises be behaviouristic or communicative).

(Warschauer and Healey, 1998: 58)

This explanation of Integrative CALL suggests that language educators need to adopt an eclectic pedagogical approach to language education. As with previous generation of CALL the dominant pedagogical theories of the day influence the ways in which CALL is currently pursued. The prevailing feature of this current iteration of CALL is its facilitation of communication and social interaction in the target language. Kramsch (2014: 296) states that:

There has never been a time when language teaching and learning has been more interactive and more imaginative than today. Communicative pedagogies have made the classroom more participatory, electronic chatrooms have loosened the tongues and the writing of even the shyest students, video and the internet have made authentic materials available as never before, telecollaboration and social networks have increased students' access to real native speakers in real cultural environments...

Within this phase of CALL's development, the aim of CALL researchers and practitioners has been to normalise CALL as a part of the language learning paradigm (Chambers and Bax, 2006).

Almost 20 years ago, Warschauer (1999) posited that within education:

The truly powerful technologies are so integrated as to be invisible. We have no "BALL" (book-assisted language learning), no "PALL" (pen-assisted language learning), and no "LALL" (library-assisted language learning). When we have no "CALL," computers will have taken their place as a natural and powerful part of the language learning process.

With regard to Warschauer's (1999) comment on "BALL", "LALL" etc... it is necessary to state that no technology is neutral in its design and that even learning artefacts such as books contain a hidden pedagogy. For example, a language learning textbook may be laid out according to a behaviourist approach while a maths book may approach the subject from a problem or task-based learning methodology to produce a problem booklet or other instructional book type resources (Mishra, 2015). Identifying the hidden pedagogy behind CALL is therefore a challenging task as CALL currently utilises a collection of pedagogical approaches going back to the 1960s (see Section 2.3.1). It could be argue that CALL's hidden pedagogy currently is eclectic in nature, unfortunately all too often it is the technology that dictates the choices made in design of digital learning resources (Dunckley, 2015). Despite these problems related to CALL applications' pedagogical designs or perhaps because of their eclectic nature, it is emerging that

language learners are readily able to use and adapt various tools with BLL blends to pursue their individual aims (González-Lloret and Ortega, 2014, Abrams, 2016). McMurry et al. (2016: 62)

States that:

Making pedagogical concerns the first priority will help shape and focus their technology use. It is essential that all teachers consider the importance of student learning outcomes when considering the use of technology in the classroom.

Contrary to older iterations of CALL which sought to use the most cutting edge technologies available to enhance language learning CALL, McConnell (2014) proposes that teachers and researchers pursuing the integration of contemporary CALL should focus on widely available technologies that have been proven to enhance language acquisition. These types of technologies include personal computers, communication software, language learning websites and in more general the internet. The use of freely available language learning resources and other online communication tools for the enhancement of learners' listening and speaking skill in Section 2.4 support McConnell's (2024) proposal. Furthermore, as mentioned in Section 1.1, the proliferation of language learning platform such MOOCs and other language learning apps makes this a pragmatic proposal. This also suggests that teachers must approach from a pedagogical perspective that is flexible in bringing together CALL resources in an eclectic way. The most popular types of open and free to use CALL technologies that are currently available to language teachers for the inclusion in BLL course designs are:

1. Online language learning platforms and apps such as Duolingo (see section 5.3.1).
2. LMOOCs such as those offered by FutureLearn (see Section 1.1).
3. Memorisation applications such as Anki Intelligent flash cards (Chang and Kusnadi, 2018, Nayak et al., 20017).
4. Synchronous and asynchronous communication technologies that are purposefully design to develop learners' communication skills such as SpeakApps and VoiceThread (see Section 2.4) or other technology platforms that have similar affordances for

enhancing language learning such as SoundCloud (see Section 5.3.6) (Marchetti and Valente, 2018) or through social networks or messaging apps (Lomicka and Lord, 2016).

5. Other online tools that aide more generally in language learning such as online user generated annotated reading glosses (such as the Wordlink provided by the Multidict project), online dictionaries, terminology data-bases and other genuine language artefacts that are to be found on the web such as YouTube videos or Spotify playlists (Rosell-Aguilar, 2017, Quing, 2017).

Importantly, recent research reveals that different types of learning technologies are used in by learners in different ways depending on the context in which the learners find themselves in (Hwang and Wu, 2014). According to Duman et al. (2015), learners using mobile platforms are more likely to access vocabulary learning aides, and to a lesser extent grammar and writing aides while on the go than use of the technology for communication or oral production. In the case of synchronous or asynchronous communication technologies language learners are observed to require access to appropriate locations that allow them to engage in oral language production without feeling self-continuous or disturbing others (Young and West, 2018).

This discussion of the current state of CALL illustrates that there are a multitude of CALL resources available to language teachers and course designers that can facilitate the development of learners' different language skills and competencies. The knowledge that a flexible approach to the adoption of CALL resources that are context appropriate is need to facilitate language learning activity outside of the classroom is an important design consideration for this study. The following section considers applications of various technologies which have been found to facilitate the development of learners' listening and speaking skills.

2.4 Language skill development and CALL

Numerous CALL technologies are available today which have affordances for developing language skills (Munday, 2016, Lin, 2015a, Chen and Huang, 2014, De la Fuente, 2012, Barani, 2011). This section provides a general overview of the types of technologies which are available

to learners and teachers that may enhance oral and aural competencies. This is an important consideration for this study as the BLL course investigated specifically focuses on the development of language learners' speaking and listening skills. The course focused on these skills in order to give learners the tools to use the language for real world purposes, e.g. communicating with individuals at lower levels of the CEFR as mentioned in Section 1.4. This was done in part to build practicality into the design of the course, which according to Chapelle (2009) introduces real world factors into the language learning process that influence successful learning outcomes. Prior to the discussion of these technologies it is necessary to introduce the concept of Hawthorne Effects. Cook (1962:1) states that this concept refers to:

...unanticipated but beneficial effects produced in experimental situations. Such effects are said to be caused by the subject in the experiment realizing that he was a participant in an experiment and thus the object of special attention, whether real or imagined. Such awareness generally is said to have a positive facilitating effect on the subject's performance during the duration of the experimental situation

Within educational research involving the introduction of new technologies According Salaberry (2001: 50) highlights that:

Although the novelty brought about by the introduction of new teaching tools can be profitably exploited by L2 teachers for the creative implementation of pedagogical activities, it is important to differentiate the effect of two separate independent variables in the research design of empirical studies. The effects of the novelty of the medium represent an intervening factor that should be distinguished from the effects of the independent variable of the communication environment (related to the use of the new teaching tool) in which a pedagogical activity is implemented.

Additionally, Dawson (2018) highlights the prevalence of reporting bias in educational research due to factors including positive agendas of teaching and learning funding bodies, the researcher's employment status within an institution and other methodological issues. It is therefore incumbent upon researchers working within CALL to be cognisant of these potential weaknesses while evaluating technological interventions for the enhancement of the listening and speaking skills.

2.4.1 Listening

The listening skill is described by Nunan (1997) as the 'Cinderella skill' among the four primary language skills as it is often overlooked for its bigger sister, the speaking skill. In the field of second language learning the listening skill is possibly the most important skill for the learner to develop as it is the main channel through which the second or foreign language is learned (See Section 2.2). Various technologically enhanced methods for developing language learners' listening comprehension have been highlighted by researchers (Jakobsdóttir and Hooper, 1995, Zhao, 1997, Chang and Read, 2006, Hayati, 2010, Smidt and Hegelheimer, 2010, Barani, 2011, Roussel, 2011, Hascoet, 2012, Nobar and Ahangari, 2012, Nachoua, 2012). The researchers have found that:

- Speech rate impacts learner comprehension
- Motivation is increased through the use of listening technology
- Listening technologies can affect other language skill areas positively
- Providing audio input with rich text and/or visual content such as videos or pictures contributes to aural comprehension

There has been much discussion in the field of CALL as to the merit of providing learners with the ability to control the rate of speech in listening comprehension exercises (Hayati, 2010, Zhao, 1997, Nobar and Ahangari, 2012). Specifically, the debate centres around two questions; whether it is better to allow learners to manipulate the speech rate of the material they are listening to or to allow learners to listen to speech at a natural rate but with the ability to re-listen to the material.

Zhao (1997) conducted a study on the effects that listeners' control of speech rate had on second language comprehension. 15 non-native English speakers from 6 countries participated in this study. Zhao set out four listening conditions for the subjects which varied in the flexibility and control the subjects had over the rates of words that they could listen to per minute per

listening passage. The listening passage consisted of 15-20 words per passage. Zhao (1997) found that:

...the participants' comprehension was overwhelmingly higher when they had control over the rate of speech than when they did not. When they had control, the general tendency was a slowing down of the speech rate. However, it is important to mention that the degree that each student slowed down the rate varied.

Zhao (ibid) found that when learners are given the option of slowing the rate of speech they do and also that they performed better in controlled situations than non-controlled situations.

More recently, in a similar study on the effects that speech rates have on English foreign language learners' listening comprehension, Hayati (2010) found that technologies which give the learner the control to replay speech at natural or slower speeds both had a significant positive effect on EFL learners' listening comprehension. The study was composed of 62 learners divided into two homogeneous groups of 31 participants. Interestingly, the study found that students who were given recordings which had a natural rate of speech performed better than those who were given slowed speech rate recordings. As shown by Zhao's (1997) study above this may not be what the learners would choose for themselves but it is more beneficial, according to Hayati (2010), to the development of their listening skill. Hayati (ibid) used a paired t-test to show that both methods were statistically significant at 0.05 levels. He found that EFL learners which are exposed to natural rates of speech had a significant difference in their t-test scores of -2.83 while the group with access to only slower rates of speech had a score of -1.22, both of which support the study's null hypothesis. It is unfortunate that Hayati (2010) did not include a third group of students in order to investigate what effect both slowed and natural rates of speech would have on an EFL learner's listening skill. He also did not use an activity tracking tool to conduct the study in order to uncover how many times a learner replayed a segment of speech. Nonetheless, Hayati's (ibid) findings illustrate the positive effect technology, which allows students to replay the speech and to modify the speech rate, has on the development of the listening skill. He also points out that 'Slow speech rate may be used as a short path practice for comprehending natural speech rate' (ibid: 113).

Cooney and Keogh (2007) conducted a pilot project on the use of mobile platforms for learning Irish. This study took place over a five-week period. 69 students second year students aged between 14 and 15 from a rural school in Ireland participated in the study. Their three Irish teachers also participated in the study. Cooney and Keogh (ibid) found that 'students' abilities to learn autonomously were enhanced by the mobile platforms as the technologies facilitated learning at any time, in any place and at the students' own pace. Another report based on the same study by the National Council for Curriculum and Assessment (NCCA, 2007) found that students spent more time speaking the language and listening to their own responses which contributed to improving their aural and oral proficiency. Furthermore, 'teachers also reflected on their ability to hear students who are usually quiet or shy in class and how certain students' confidence was notably increasing as they listened to their responses recorded over time' (NCCA, 2007: 38). This study underscores the importance of mobile platforms in integrative CALL and BLL. It illustrates that it positively affects the development of both the speaking and the listening skills as has been pointed out in other studies by De la Fuente (2012) and Kukulska-Hulme and Shield (2008).

In a study conducted by Roussel (2011) on a computer assisted method to track listening strategies in German second language learning, he found that technology does contribute to the development of learners' listening comprehension. The study consisted of four experiments which tested the effect listening conditions, initial level of learners' competence and learners' listening strategies had on comprehension. The influence of particular German language difficulties on students' comprehension and learning strategies was also tested. In total 128 students participated in the four studies. 30 student participated in *Experiment 1*, 29 students participated in *Experiments 2 and 3*, and 40 students participated in *Experiment 4*. Each experiment revolved around the use of a technology at a particular time and location but Roussel (ibid) does not provide any particular data in relation to the duration of the experiments or the tasks the participants were asked to perform. One methodological criticism here of

Roussel's (ibid) was that the experiments were not revisited with the learners over an extended duration of time. Practically, this study is similar to that of Zhao (1997) in that learners could not control the speech rate but could replay the listening segments as much as they liked. Overall there was a positive effect on the learner's listening comprehension. Roussel (2011) emphasises the need for learners to be educated in the use of the technologies and to be made aware of the strategies which can influence their success or failure. Roussel (ibid) also emphasises that it is not sufficient for teachers to simply incorporate technology into the language course but to also;

...explicitly teach "input/intake" self-regulation together with problem-solving, planning and evaluation strategies in order to strengthen the L2 learners' "metacognitive" awareness of the underlying processes at play in language comprehension.

(Roussel ibid: 114)

Nobar and Ahangari (2012) conducted a study on the impact of CALL on Iranian EFL learners' listening skill and motivation. This study included 40 English foreign language university students who were randomly assigned to a control or an experimental group. The study was conducted over twelve-week duration. The researchers found that learners who were provided with task-based listening comprehension materials via the computer outperformed learners with no such access to a computer (Nobar and Ahangari, 2012). Nobar and Ahangari (ibid: 55) conclude that their findings 'suggest that the repetitive nature of input through the internet assists learners in understanding linguistic cues.' The researchers also found that the level of motivation for learners which used the computer was higher than that of learners with no access to the computer. This increased motivation may be attributed to the Hawthorne Effect mentioned in Section 2.4.

Repetitious listening enabled by the computer has been observed to have a positive effect on learners speaking proficiency also. From the period of 2012 to 2013 Mushangwe (2014) conducted a study in the University of Zimbabwe with a total of 50 students exploring the

possibilities of CALL for 'de-foreignizing' sounds in the L2 for students of Chinese. He quotes Gilbert (1995: 1 as cited in Mushangwe 2014: 303) as stating that: 'if learners cannot hear well, they are cut off from the language they are studying and if they (learners) cannot be understood easily they are also cut off from conversation with native speakers. Mushangwe (2014: 306) made use of the 'Praat² software to analyse the students' pronunciation of Chinese tones before and after the computer-assisted pronunciation practice.' The pronunciation practices consisted of coaching the students to repeat different sounds in Chinese while recording their utterances. 'A given tone, consonant, word or phrase would be repeated for several times until the student manages to produce the sound or phrase correctly or at least perceived by the teacher as fairly good' (Mushangwe, 2014: 306). Mushangwe (ibid) then analysed these correct or 'fairly good' sounds from the recordings and made each students' own pronunciation available to them in MP3 format so that they could be replayed through mobile phones or computers. The learners were able to perceive the Chinese sounds more clearly when they listened back to themselves pronouncing them. The results of the study show an increase in the accuracy of student pronunciation in Chinese and an improvement in the perception of Chinese sounds as these actions became operationalized due to repeated exposure to the L2 and practice. This allowed the students to overcome phonological deafness. This approach is quite time consuming though. It requires the language instructor to go through each pronunciation individually with each learner, review the recordings and finally edit the recordings to make them available via MP3. This is not a practical solution for all language instructors or institutions due to resource or time constraints. The study does support the use of repetitious CALL exercises in order to supplement classroom instruction in order to develop learners' oral competencies. A strategy to encourage students to repeat words after they hear them could improve student pronunciation in the target language also.

² Praat is a computer program with which users can analyse, synthesize, and manipulate speech. Available at <http://www.fon.hum.uva.nl/praat/>

O'Bryan and Hegelheimer (2007) explored the role of podcasting in developing English second language learners' listening strategies. The study lasted fifteen weeks during which participants received two hours of instruction per week. The participants were provided with fourteen podcasts that were design specifically for the language course. Six students and one language instructor participated in this study. The researchers acknowledge this limitation but substantiate the papers findings with a detailed example of CALL integration. O'Bryan and Hegelheimer (ibid) found that students with access to podcasts throughout an English language course could employ better listening strategies. Additionally, the study found found that the use of these podcasts freed up class time to focus on additional exercises. The authenticity of the podcast's content also motivated students to interact with the target language and improve their listening comprehension.

In addition to the podcast's instructional goals, the instructor-produced podcasts also serve to motivate students by giving them control over the input they receive and taking advantage of a popular technology that has potential for helping students improve their listening comprehension.

(ibid: 174)

With regard to motivation, several researchers have noted that the inclusion of technology for listening comprehension positively impacts on learners' motivation (Nobar and Ahangari, 2012, Jakobsdóttir and Hooper, 1995, Nachoua, 2012).

Jones and Plass (2002) investigated methods to support listening comprehension and vocabulary acquisition in French with multimedia annotations. The participants in the study consisted of 171 students who were in their second-semester beginner French language course at a university in the south central United States. The participants were asked to listen to a 2-minute, 20-second historical account in French presented by a computer program. Participant were divided into four groups that received different version of the computer program such as with written annotations available or no annotations available. The researchers found that in line with CTML learners' incidental vocabulary acquisition was strongest where text and pictorial

annotations were linked with audio recordings. An interesting finding of the study was that text annotations for audio were recalled after a longer duration in post-test than pictorial annotations for audio alone. The findings of this study suggest that annotations which combine a mixture of audio, and text and pictorial annotations have the greatest potential for enhancing student listen comprehension and vocabulary acquisition. Additionally, the findings of this study are further supported by the large sample size.

The author observes, based on the discussion of the various CALL approaches for facilitating aural input, that the main factors in developing students' aural competency through CALL are: students' ability to replay and control the rate of speech and students' access to authentic content with this function. Based on this assumption, the author concludes aural input of this type should form a part of the criteria for selecting CALL resources in the design phase of a language course. The author concludes that the discussion highlights approaches to CALL which can be accomplished using widely available tools such as SoundCloud and other podcasting platforms in order for the teacher to distribute authentic content among students.

2.4.2 Speaking

Wang and Sun (2000) state that 'a highly interactive and communicative learning environment is conducive to successful language learning.' Unfortunately, the nature of traditional classrooms and the emphasis within language courses to cover topics specified within set curriculum, such as in the case of Irish language instruction, does not produce competent speakers of the target language (NCCA, 2007). Similarly to technologies for the development of the listening skills, numerous applications of technologies for the development of learners' oral competencies have been identified by CALL and language teaching researchers (Khan et al., 2013, Talebi and Teimoury, 2013, Castañeda and Rodríguez-González, 2011, Martin, 2010, Cordier, 2009, Tanner and Landon, 2009, Cooney and Keogh, 2007, Wang and Sun, 2000, Ehsani and Knodt, 1998). Certain technologies and methods have already been mentioned in relation to the enhancement of the listening skill which have an impact on the speaking skill and are not

discussed further. The focus of this section is to explore findings which relate to specific CALL technologies for the development of the speaking skill, such as through computer mediated communication (CMC). These CALL technologies include:

- Asynchronous CMC tools such as audio or video language blogs
- Pronunciation exercises such as those which use speech recognition technology
- Synchronous communication tools such as voice over internet protocol (VOIP) applications (e.g. Skype)

Perhaps unsurprisingly, the value of synchronous communication tools such as VOIP for their use in language education have been evidenced for some time. This is possibly as a result of the positive effects authentic aural input and oral output have been observed to play in instructed language acquisition, as highlighted with Section 2.2.7. Wang and Sun (2000) studied the use of internet based VOIP to help solve the problem of lack of exposure to speaking practice in the target language. The researchers used the Open Learning Chinese Programme offered at Griffith University in Australia as a case study. Wang and Sun (2000) state that synchronous language learning technologies help languages to come alive;

For example, through desktop video conferences or internet telephoning, students can hear the target language being spoken, watch the body language of the speaker, and use the target language to communicate and solve problems. Similarly, students can perform a role-play in the target language with other students. As a result, language learning is now happening in a social context and becoming more meaningful than ever.

(ibid: 170)

More recently, Bower et al. (2015) conducted a cross case analysis of 27 cases of synchronous blended learning environments and the factors affecting their success. In total, 184 learners participated in these studies. In the fifth case in which 21 learners participated, Bower et al. (2015) examined the use of the platform Second Life to create a virtual world for Chinese language learners: *Chinese Island*. This virtual world facilitated synchronous communication between learners who participated in the course purely online and the course's face-to-face

students. The object of the lessons using this platform were for students to interact with non-player characters (NPCs) and other members of their class through Chinese. Examples of these tasks include obtaining directions to the market or purchasing ingredients for dumpling soup. The researchers found that despite some technical issues accessing all of the platform's features, the students appreciated the richer learning experience created by the virtual world.

One student stated:

When I did Japanese before ... it's just like you're doing an exercise online and that's it, but this ... it's actually kind of a real life [sic], and you can get to talk to people and finish the tasks together, but not by yourself, and so like, you apply all those sentence structures, all that vocab

(ibid: 9)

Implementing this approach to synchronous communication in the target language was reported to be a time consuming process for the language teachers. The virtual world itself is reported to have taken several semesters to develop. Additionally, Bower et al. (ibid) found that there were challenges in facilitating interactions in the physical and virtual world settings. Furthermore, the researchers found that text communication in the virtual world played a substantial role in students' communication and was favoured in certain circumstances over oral communication. Another difficulty identified with this type of communication is that not all learners are competent or indeed willing to engage in this sort of learning activity. In the context of this study, the author posits that this approach would be challenging to implement as it would require a substantial investment of the language teacher's time in creating a virtual world for ab initio learners. Moreover, the use of a synchronous communication tool that also facilitates communication via text, message or chat-like functions may enable students to avoid oral production as was found by Nic Giolla Mhichíl et al. (2014a) with students using the online oral production platform SpeakApps. This may stem from students' increased familiarity with this mode of communication as it is a major component of their daily lives as mentioned in Section 2.3.4.

Despite the effectiveness of synchronous communication platforms such as SpeakApps and Second Life, and the dissemination of tools that facilitate face-to-face communication like Skype and FaceTime, students' experience of these tools is limited in formal language learning contexts. In a report by Nic Giolla Mhichíl et al. (2015) based on 61 pilot studies focusing on the use of SpeakApps in which 7,180 language students participated, it was identified that learners have limited experience of using synchronous communication tools for language learning. Additionally, their findings highlight the need for *Open Education Resources* (OERs) such as SpeakApps to ensure the usability of a synchronous communication platform.

Based on the discussion of synchronous technology for language learning purposes, the author concludes that the use of such platforms to enhance students' oral competencies, although an effective strategy for oral skill development, is a challenging and time-consuming practice to implement successfully in a language course. According to Nic Giolla Mhichíl et al. (2014b), using a platform such as this requires students be provided with sufficient time to produce language and for teachers to be supported in returning feedback. With regard to this study the time available to run the BL course presents a practical limitation in the types of technologically facilitate oral production tasks that can be included in the course. As the course was designed to last only six weeks it was not logistically feasible to facilitate this type of technology use within the course's blend. Additionally, Malerba and Appel (2016) report that certain types of learners do seek out interactions with native speakers or fluent speakers provided that this action aligns with their learning aims and that their language level is sufficient to facilitate this interaction. They also report that a task-based language teaching approach is key to the success of tandem partnerships in online tele collaboration platforms. In the context of this study, the author concludes that synchronous interaction tools although effective require a large time investment from the teacher and can potentially be the cause of technological difficulty within learning environments.

Another technology which has been found to influence the development of learners' oral competencies is automatic speech recognition (ASR) software. Similarly to synchronous communication tools, the benefits offered by this type of CALL technology have been known for some time (Chun, 1998, O'Brien, 2006). According to Cordier (2009: 124-125) students using ASR software:

... can practice speaking and pronunciation on their own or during a lab session without evaluation by the teacher. The teacher has a limited amount of class time with students to practice speaking or pronunciation, yet participants value the teacher's input. CALL-multimedia with embedded ASR can complement FL teachers' lack of time during class for pronunciation practice where students need to practice in order to improve their pronunciation and speaking.

30 undergraduate French languages students who had completed one semester of French level I and II participated in this study. Prior to the data collection sessions students attended an orientation session to the ASR software. Cordier (ibid) does not state how long each data collection session lasted. Using ASR features available with the *Tell me More French* software, the researcher found that ASR is perceived by language students to be a valuable pronunciation practice tool. Unfortunately, in the context of this study and the Irish language course *Introduction to Irish* this technology is not readily as usable a tool as other language tools for the development of student's oral competencies as there is no ASR software available for the Irish language currently. This problem is also compounded by the fact that there is only one mature *text to speech* (TTS) synthesiser available in Irish (Abair.ie) which is not an open platform. This is a problem as TTS and ARS software are mutually dependent on one another (Dines et al., 2010). The use of a TTS system as a training tool for pronunciation could potentially be used as an ad hoc work around in the contexts of less well supported minority languages in order to facilitate oral development in this way.

Asynchronous communication is another techno-pedagogical oral production strategy which is not as troublesome to organise as synchronous communication exercises (Blake, 2016, Ono et al., 2015). Lin (2015a) conducted a meta-analysis of CMC interventions and their direct or indirect effects on the acquisition of oral competences among learners of various different

second languages. The meta-analysis used the result of 25 studies published between the years 2000 and 2012. Lin (ibid) found that, in general, both synchronous and asynchronous CMC produced a moderately positive effect on the development of language learners' oral competencies in comparison with solely face-to-face interactions. Importantly, Lin also discovered that this type of CALL had similar positive impacts on learners' pronunciation and their lexical and syntactic level of oral production. Interestingly, Lin (ibid) also discovered evidence that suggested that CMC may negatively impact learners' fluency and accuracy. This suggests that CMC alone is not sufficient to facilitate learners' social use of the language among one another and that face-to-face teacher led interventions are still required by learners.

Dugartsyrenova and Sardegna (2016) conducted a study on the use of VoiceThread, an asynchronous multimodal communication tool, with eight undergraduate students studying Russian in the University of Pittsburgh, Pennsylvania, USA. The purpose of this study was to explore students' perception of an asynchronous interaction tool for supporting their oral skill development. Another purpose of the study was to investigate the factors that influence learners' perception of the use of such tools for oral skill development. Eight undergraduate Russian language students participated in weekly tutoring sessions over six weeks. These sessions combined face-to-face that lasted 75 minutes and online practice using VoiceThread. The researchers Dugartsyrenova and Sardegna (ibid) found that learners enjoyed using this tool to practice their production of the target language independently and in a controlled setting. Importantly, the researchers found that students did not perceive VoiceThread as a social tool to interact with other language learners or as a replacement to face-to-face interaction. This is an important finding for the research presented here as it suggests that a BLL approach using asynchronous interaction tools is favoured by students in their oral development.

2.5 Summary

This chapter described BL and how it is manifested when applied to second language education. The chapter illustrated how BLL is informed by research undertaken in the field of SLA and CALL.

During the discussion of SLA, the prominent theories within the field were investigated. This in turn facilitated the discussion of how SLA can inform pedagogical approaches to instructed language learning. The chapter then defined CALL and described its historical development since its initial inception. The chapter concluded by providing an overview of CALL's affordance for enhancing learners' speaking and listening skills.

It has been suggested by Trinder (2016) that future research into the field of CALL in BL environments should seek to understand the conditions and circumstances that govern students' use of technology, both individually and as a part of a group. In order to understand these conditions one must be aware of the actions students take with individual tools in different contexts over a particular duration of time (i.e. duration of language course). Additionally, researchers must be aware of the larger social context of the learning activity along with the interaction between members of the learning community. Furthermore, in order to investigate and identify the various components that impinge on the implementation of a BLL course, a robust theoretical framework is required. This framework must be capable of guiding the integration of the technology with the social practices in a language course. The next chapter presents Cultural Historical Activity Theory as the theoretical framework of this study. The framework functions to inform the study's methodology and the design of the BLL courses implemented in the main study.

Chapter 3 Theoretical framework: Cultural Historical Activity Theory

This chapter introduces this study's theoretical framework; *Cultural Historical Activity Theory* (CHAT). This study adapted methodological CHAT-based approaches developed by Prof. Françoise Blin (2005). Adapting these CHAT-based methodological approaches necessitated the use of this theoretical framework in order to pursue this study's research question and aims. Blin (ibid) investigated the effects of *Computer Assisted Language Learning* (CALL) technology on the development of learners' autonomy within a French language course. In order to conduct her investigation, Blin (ibid) used CHAT-based research instruments and a bespoke CHAT-based coding scheme. Applying this coding scheme to data collected with the CHAT-based instruments she was able to identify Contradictions affecting the development of students' autonomy in a blended French course.

CHAT is used in this study to conceptualise the various elements that comprised the BLL Irish course implemented as a part of this study in September 2016 at Carnegie Mellon University. CHAT provides researchers with a theoretical lens with which to observe, document and analyse human activity (Engeström, 2001a, Yamagata-Lynch, 2010, Blin and Appel, 2011). CHAT is an adaptable framework and has been used to study a variety of human activity within a wide range of different social contexts, including; healthcare, education, business organisation, and human-computer interaction, to name but a few (Blin, 2005, Engeström, 2010, Kaptelinin, 2015, Anselm, 2017). Multiple studies have illustrated CHAT's usefulness in identifying Contradictions within an activity system, such as within a large organisation like a university or a specific activity system such as a university level course or module (Yamagata-Lynch and Haudenschild, 2009, Blin and Munro, 2008, Blin, 2005). The identification and analysis of these contradictions can in turn be used to inform and improve practice and policy, such as how one can design a language course that fosters student agency within a hybrid-learning environment (Blin and Jalkanen, 2014). In this study CHAT also served a practical purpose as it was used by the author as a design

and planning tool during the syllabus design phase of the ab initio blended course; *Introduction to Irish*.

This chapter illustrates the suitability of using CHAT as a framework to identify contradictions within a complex learning environment such as the aforementioned ab initio *blended language learning* (BLL) course implemented in this study. Ab initio language learners are defined in accordance with the *Common European Framework of Reference for Languages* (CEFR) in Section 1.1. Chapter 2 defined *blended learning* (BL) and considered BL in relation to language education specifically (BLL). During this discussion the primary fields that influence the creation of a BLL environment were highlighted. These fields included; *Second Language Acquisition* (SLA), CALL and specific digital interventions for the development of language learners' speaking and listening skills. The discussion of these various fields illustrated the complexity and multifaceted nature of a BLL environment. This chapter illustrates how CHAT can provide language course designers and BLL researchers with a powerful conceptual framework with which to understand the actions taken by learners in a BLL environment.

This chapter begins by providing an historical overview of the origin of CHAT starting with a general introduction to Activity Theory (AT). AT describes the relationship between a human subject and their *object-orientated actions*. According to AT, human activity is mediated by either material or semiotic artefacts. The discussion of AT is used to introduce the reader to fundamental core concepts within CHAT. Subsequent generations of AT are then introduced to the reader as a way of illustrating the various elements that comprise an *activity system* within CHAT. An activity system is comprised of different components.

An activity system comprises the object of activity, the subject involved in the activity, tools and artifacts relevant to the activity, rules and procedures that shape participation in the activity, the community relevant to the activity and the division of labour entailed in carrying out the activity.

(Igira and Gregory, 2009: 438)

The third generation expands on the discussion of activity systems and introduces the concepts of different levels of activity systems as well as interacting activity systems. The third generation of CHAT is the current generation that is used by researchers to understand complex learning environments (Yamagata-Lynch, 2010).

The *operationalisation* concept within CHAT is then discussed. Operationalisation is defined as the process of transforming conscious actions into subconscious automated actions, or operations that a subject performs, in order to achieve their consciously held object or goal. According to Roth and Lee (2007:23):

Actions (goals) are referents for the sequencing of those unconscious elements that realize them—operations. An operation is shaped “not by the goal in itself but by the objective-object conditions of its achievement” (A. N. Leont’ev, 1978:65); in other words, operations emerge in response to the relationship of goal and current state of the action and its material context.

The chapter then proceeds to consider the limitations of using CHAT to guide a qualitative study’s methodological framework. Penultimately, and perhaps most importantly in the context of this study, contradictions are examined. The concept behind the term *contradiction* does not represent a problem, obstacle or conflict, but rather a certain misfit or strained relationships between elements within an activity system. Contradictions are the driving forces of change and development within activity systems (Engeström, 2001a: 137). Finally, the different types of roles that artefacts or tools may hold within an activity system are considered. The primary technologies that formed the blend of *Introduction to Irish* are used in examples to illustrate the various roles artefacts can play within an activity system. The applicability of using CHAT to study BLL is illustrated throughout this chapter.

3.1 Cultural Historical Activity Theory

CHAT provides researchers with a theoretical framework to understand human activity as it changes over different timescales in different contexts.

The term historical is used together with cultural to indicate that since cultures are grounded in histories, and evolve over time, therefore analyses of what people do

at any point in time must be viewed in light of the historical trajectories in which their actions take place. The term activity refers to what people do together, and is modified by both cultural and historical to convey its situatedness. Theory is used in this label to denote a conceptual framework for understanding and explaining human activity.

(Foot, 2014: 3)

CHAT derives its core elements from AT (Blunden, 2014: 356). This section provides a brief historical and theoretical overview of AT as a way of introducing the reader to AT's core concepts. Building on this overview, the different generations of CHAT will then be discussed as a way of introducing the reader to additional concepts relevant to this study.

3.1.1 Activity Theory

The roots of AT can be traced back to the early days of the former Soviet Union in the beginning of the 1920s (Blunden, 2014). Other researchers have stated that its roots can be traced back further to at least the 19th century (Raeithel, 1992). AT was developed by the Russian psychologists L. Vygotsky, S. Rubenstein, and A. Leontiev, (Kaptelinin et al., 1995: 189). The theory also incorporates elements of Marxist psychology and the psychology of cognitive processes (Leontiev, 1978).

Activity theory can be considered as a continuation of the cultural-historical tradition but it differs in some respects from the original Vygotskian approach.

(Kaptelinin et al., 1995: 190)

AT is described in the literature as:

...a set of basic principles which constitutes a general conceptual system which can be used as a foundation for more specific theories. These basic principles of Activity Theory include object-orientedness, the dual concepts of internalization /externalization, tool mediation, hierarchical structure of activity, and continuous development.

(Kaptelinin et al., 1995: 191)

Object-orientedness is a central principle of AT. It focuses on the reason why people engage in an action or actions as part of an activity in order to achieve a goal. Blin and Appel (2011: 474) state that:

A Key element to this approach [activity theory] is its 'object orientedness', where the term 'object' in this case corresponds to a motive and may refer to a physical need (e.g., hunger, material comforts), socially determined aspirations, or perceived problems or contradiction.

Prior to AT, psychology in the 1920s was dominated by psychoanalysis and behaviourism. These perspectives were unable to account for the external and the societal factors that influence an individual. According to AT, human activity is composed of a tripartite structure (Helsinki, 2003). This structure is best illustrated by Leontiev's (1978) model of activity which is illustrated in Figure 3.1.

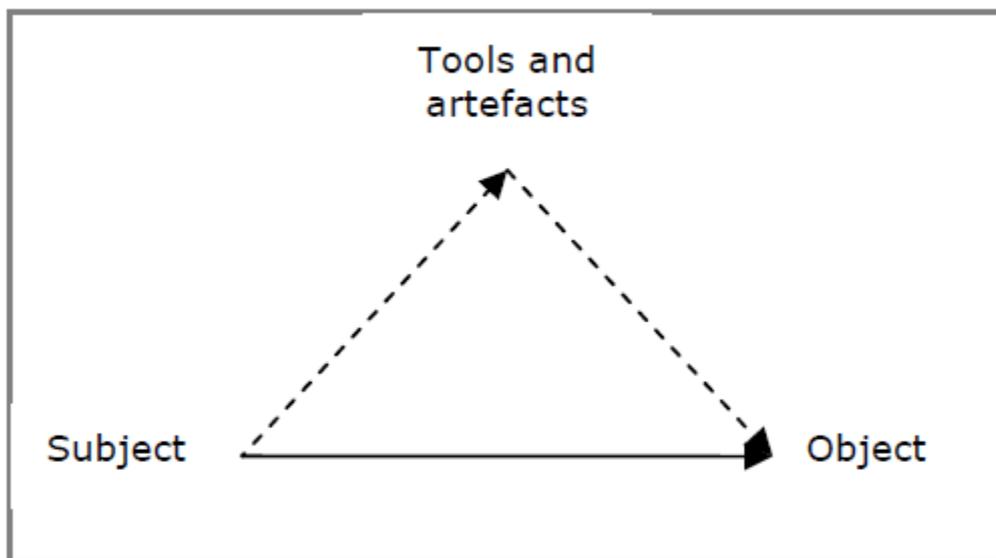


Figure 3.1 Leontiev's model of activity theory (Blin, 2005: 40)

The triangle represents the way in which Vygotsky brought together cultural artefacts with human actions in order to dispense with the individual/social dualism.

(Bath, 1999: 1)

It is within these cultural artefacts that the historical elements within the activity system reside as well as the people themselves. The tools may either be symbolic (such as language) or corporal (such as a computer).

This triangle represents the mediating role of tools in human actions.

The insertion of cultural artifacts into human actions was revolutionary in that the basic unit of analysis now overcame the split between the Cartesian individual and the untouchable societal structure. The individual could no longer be understood without his or her cultural means; and the society could no longer be understood without the agency of individuals who use and produce artifacts. This meant that objects ceased to be just raw material for the formation of logical operations in the subject... Objects became cultural entities and the object-orientedness of action became the key to understanding the human psyche.

(Engeström, 2001a: 134)

Leontiev (1979) states that each activity which is performed by an actor, is specific to a particular need or motive (Objects). Leontiev (1979: 7) proceeds to state that:

We call a process an action when it is subordinated to the idea of achieving a result, i.e., a process that is subordinate to a conscious goal. Just as the notion of a motive is tied to an activity, so the notion of a goal is connected with the notion of an action.

As mentioned, conscious actions then after time turn into unconscious operations which in turn may be used to achieve additional goals as a part of other actions. This basic understanding of tool use and operationalisation in pursuit of future goals is an important consideration for BLL studies. Especially with a view to identifying problems with a new language course's design. Operations are discussed further below.

3.1.2 Activity in context

Human activity cannot be understood in isolation. According to Engeström (1987: 149):

Human activity is not only individual production. It is simultaneously and inseparably also social exchange and societal distribution. In other words, human activity always takes place within a community governed by a certain division of labour and by certain rules.

CHAT emerged as a theoretical framework capable of understanding human activity in its larger context when Leontiev (1978) expanded the original triangle of activity to include: the division

of labour, community and rules. Leontiev (1981) uses these new elements to illustrate the difference between individual action and collective activity with his example of a 'primitive technical division of labour' in the context of a 'collective hunt'.

...at the earliest time in the evolution of human society, a division of the previously single process of activity between the separate participants in production inevitably arose. Originally this division seemingly had a chance, impermanent character. In the course of subsequent evolution it took shape already as a primitive technical division of labour.

It now fell to the lot of some individuals, for example, to maintain the fire and to cook food on it, and of others to procure the food itself. Some of those taking part in the collective hunt fulfilled the function of pursuing game, others the function of waiting for it in ambush and attacking it.

(Leontiev, 1981: 186)

According to Bath (1999: 2):

This expansion of the basic Vygotskian triangle aims to represent the social/collective elements in an activity system, through the addition of the elements of community, rules and division of labour while emphasising the importance of the elements of analysing their interactions with each other.

See Figure 3.1 for basic Vygotskian triangle. Engeström (1987) illustrated the relationship between these new additional elements introduced by Leontiev and the old elements identified by Vygotsky initially. These relationships are illustrated by triangles which are often called 'Engeström's triangles', see Figure 3.2.

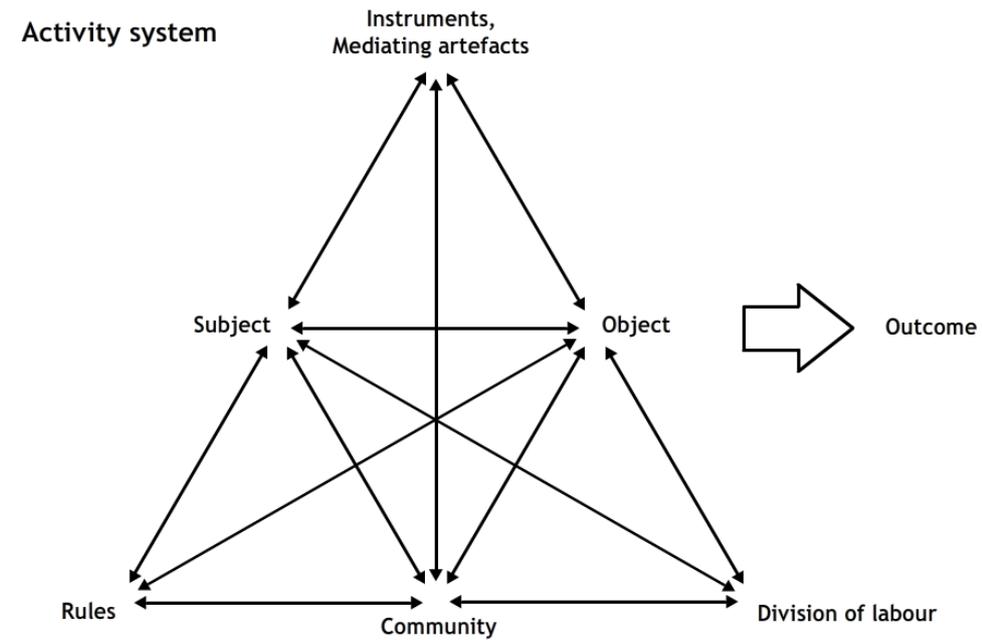


Figure 3.2 Engeström's Triangles (Burry, 2012: Online)

The shift from an individual level of focus to a more holistic overview enables the analysis of an activity system at a macro level. This is an important development in the theory's perspective as it allows for a more contextualised and holistic consideration of human activity. Furthermore, it provides deeper insights into the inner workings and relationships between different elements of an activity system (Kaptelinin et al., 1995). The object above can be seen to lead to an outcome which is often mediated by meaning making by the subject. The object is also understood to have the potential to change and evolve as the subject's activity and relationship to the other elements in the activity system develop (Engeström, 1999, Bath, 1999). Additionally, Engeström (2001: 134) states that:

The uppermost sub-triangle... may be seen as the 'tip of the iceberg' representing individual and group actions embedded in a collective activity system.

In this study, understanding this concept of the collective activity system is important as it allows for the complex interrelationships between the subjects' community and their tools to be conceptualised. Additionally, it provides the author with a theoretical lens to view the individual progression of a language learner as a part of a language course. A potential example of this

would be the ab initio learner moving from one objective to another based on a certain outcome e.g. from knowing some basic expressions in the target language to being able to hold a simple conversation and so on, or on a certain problem, such as a problem with a piece of technology.

Within the second generation of AT there is little emphasis placed on the study of contradictions or tensions within the activity system and how these can lead to further change and development. Additionally, this generation of CHAT focuses on an activity system in isolation from other activity systems. This is problematic for researchers as multiple actions can be taken across different sub-activity systems which can affect the outcome of the activity. The reverse is also true.³ Lastly, this generation of CHAT is critiqued for its lack of sensitivity towards issues of diversity within the activity system. Issues relating to culture, divergent perspectives and traditions are not accounted for according to Cole (1988). These concerns are dealt with in the third and current generation of CHAT.

3.1.3 Interacting activity systems

Within the current generation of CHAT, Engeström (1999) defines the unit of analyse as the joint or communal activity that occurs within and between activity systems. Within CHAT, contradictions are seen as a force of change in activity and as such; contradictions can lead to expansive cycles which in turn transform the nature of the activity (Engeström, 2001a). Cole and Engeström (1993: 40) define an expansive cycle as:

... a developmental process that involves both the internalization of a given culture of practice and the creation of novel artifacts and patterns of interaction. The new activity structure does not emerge out of the blue. It requires reflective analysis of the existing activity structure - participants must learn to know and understand what they want to transcend. And the creation of a new activity system requires the reflective appropriation of advanced models and tools that offer ways out of the internal contradictions. However, these forms of internalization are not enough for the emergence of a new structure. As the cycle advances, the actual design and

³ For example, while learning a language a learner may engage in reading subtitles or other text while watching television programmes in the language and listening to songs in the language. These actions are all conducted within different activity systems but each is a part of a larger activity system from a macro level perspective which has one object: to become fluent in the language. In the reverse, words learned from reading text may aid comprehension while the learner watches television/movies. This in turn can contribute to the achievement of the overall goal of becoming fluent in the target language.

implementation of a new model for the activity gain momentum: Externalization begins to dominate.

Engeström (Ibid) states that contradictions play an important role in the development of an activity system. He proceeds to state that the term *contradiction* does not denote problems or conflicts but rather historically accumulating tensions that trigger transformations in an activity system.

A full cycle of expansive transformation may be understood as a collective journey through the zone of proximal development of the activity.

(Ibid: 137)

As previously stated, within the field of education, *the zone of proximal development* (ZPD) is defined as:

...the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers.

(Vygotsky, 1978: 86)

Engeström (1987) states that ZPD defines those functions which people may have been introduced to but which have not been sufficiently internalised by the individual to carry out independently. Importantly, Vygotsky (1978: 88) argues that collective activity can spur people to proceed through ZPD as they are more capable of achieving goals beyond the limits of their own capabilities when learning in groups. Schneuwly (1994) affirms that:

It is the contradiction between internal possibilities and external needs that constitutes the driving force of development.

There is therefore a link between ZPD and contradictions in that they lead to expansive cycles of transformation within a learning environment that in turn results in a new activity structure.

Contradictions are discussed further in Section 3.3.

Moving beyond the discussion of contradictions and their roles in transformative cycles, Engeström (2001a) highlights that the current generation of CHAT offers researchers a

conceptual lens that is sensitive to temporal and cultural elements. He states that the third generation of CHAT can account for the historicity of activity as well as its multi-voicedness by more clearly defining the divergent perspectives of the community within the activity system. That is the different perspective of individual subjects within an activity system. Additionally, using CHAT also necessitates considering the larger context of the activity systems.

As stated at the beginning of this section, the basic unit of analysis within the third generation of CHAT is at least two interacting activity systems. Figure 3.3 illustrates two interacting activity systems as a minimal model for a unit of analysis within CHAT.

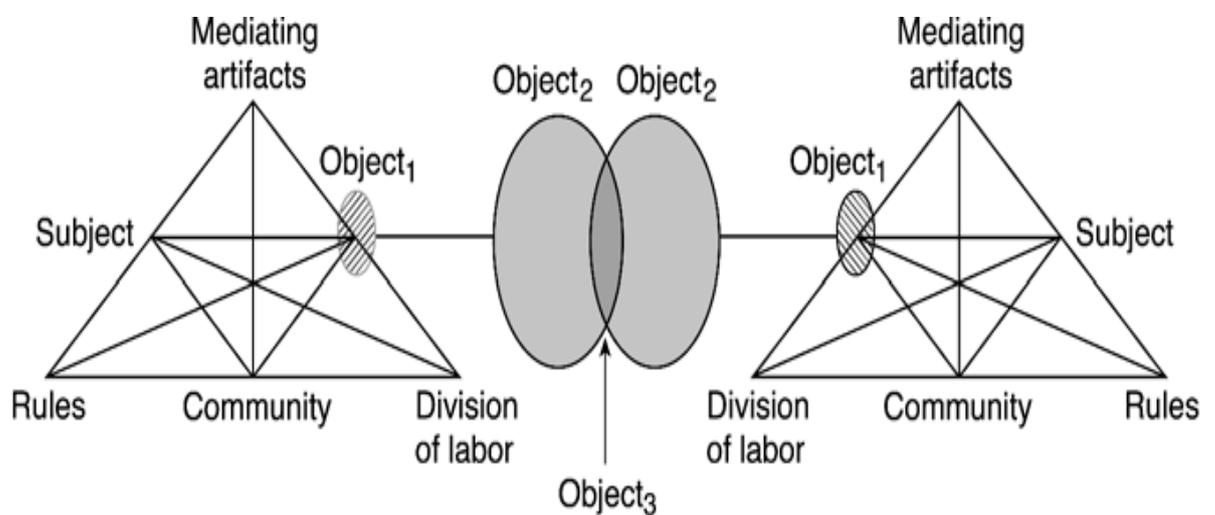


Figure 3.3 Two interacting activity systems as a minimal model for the third generation of AT (Engeström, 2001a:136)

Using a medical diagnosis as an example, Engeström (2001a) describes how these two interacting activity systems function and how the objects of each respective activity system changes and develops (See Figure 3.4 for a visualisation of these two interacting activity systems below).

...the object moves from an initial state of unreflected, situationally given 'raw material' (object 1; e.g., a specific patient entering a physician's office) to a collectively meaningful object constructed by the activity system (object 2, e.g., the patient constructed as a specimen of a biomedical disease category and thus as an instantiation of the general object of illness/health), and to a potentially shared or jointly constructed object (object 3; e.g., a collaboratively constructed understanding of the patient's life situation and care plan). The object of activity is a moving target, not reducible to conscious short-term goals.

(Ibid: 136)

Within this study this model can be reused to represent two interacting activity systems within the BLL classroom as illustrated in Figure 3.4. Object one within each respective activity system can be seen to represent the object of the development of the listening skill or the speaking skill. When both of these activity systems come together the objects become skills or operations (discussed in Section 3.1.4) which are used to communicate. The third object then is communication via conversation which engages both the speaking and listening skills but is something removed from the initial state of the objects.

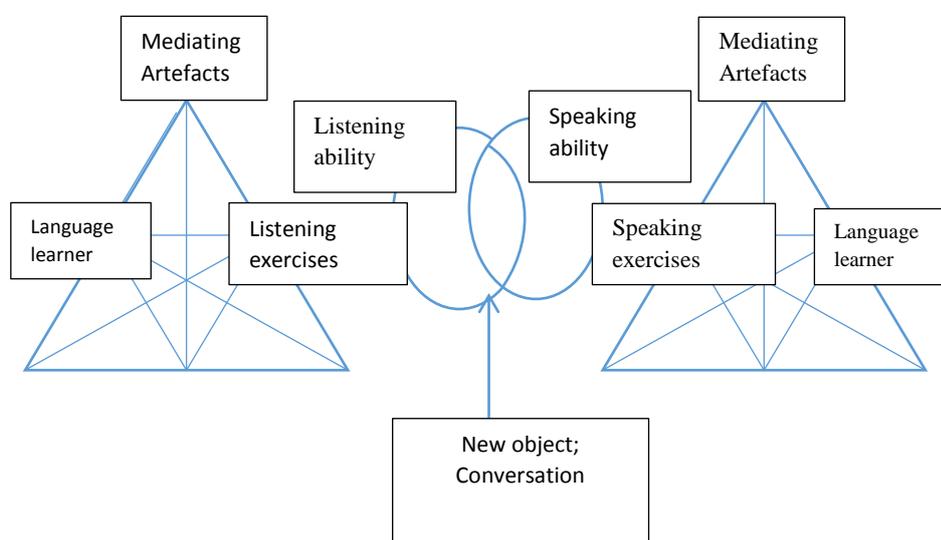


Figure 3.4 Two interacting activity sub-systems for language learners

3.1.4 Objects, Actions and Operations

It is important to note that within CHAT things are considered to be in constant flux (Engeström, 2008). Although an object or goal may elicit an action which a subject must consider consciously, that action could then become an unconscious operation in the performance of another action. This operation may in turn become an object again. This transformative cycle is represented in Figure 3.4 in that the outcomes of speaking and listening exercises when combined may give the language learner an improved ability to be able to comprehend and communicate in the second language. This gives us a hypothetical view of an object in transition. Furthermore, with regard to objects as Nardi (1996b: 37) states:

It is possible that an object itself will undergo changes during the process of an activity. Objects do not, however, change on a moment-by-moment basis... There is some stability over time, and changes in objects are not trivial; they can change the nature of an activity fundamentally...

An example of what Nardi (ibid) describes here could be conceptualised as the desire to learn a second language at university changing to the desire of wanting to be able to use a second language fluently in a social setting, rather than just studying it academically. This change could cause the subject to begin to use different tools and artefacts to engage with their object (in this case the language) in different ways.

In human beings, the formation of uniquely human functional [neuropsychological] systems takes place as a result of mastering tools (means) and operations.

(Leontiev, 1979: 10)

Practicing with these artefacts may facilitate the operationalisation of certain skills and competencies. Nardi (1996b: 37) affirms that:

Operations become routinized and unconscious with practice.

An example of this is learning how to type on a keyboard. In the beginning a person consciously pays attention to each key she selects with each finger. As time progresses, the person becomes more adept at typing and it becomes an operation as fingers find their corresponding keys unconsciously. This operation can then be used in the action of writing a book which has then become the goal of the subject. The operation could become a conscious action again when the person needs to select a specific key that is not normally used such as a certain function key.

Leontiev (1979: 9) elaborates on operations further:

The origin of an [individual's goal-directed] action is to be found in relationships among [his or her wider collective] activities, whereas every operation is the result of the [automation] of an [individual's formerly intentional] action. This [latter] transformation occurs as a result of the inclusion of one action in another and its ensuing "technicalization".

It is also a central principle of CHAT according to Engeström and Escalante (1996: 360) that the object 'is constantly in transition and under construction and it manifests itself in different forms for different participants of the activity system.'

Understanding the concept of objects in transition and the operationalisation of skills through object-orientated action is important in this study as it is assumed, based on the literature review (Section 2.3 and 2.4), that the use of CALL tools will contribute to the development of learners' language skills. Understanding this facilitates the examination of the role and use of the artefact within the activity system. The use of computer technology for developing the language skills has been shown to help language learners turn intentional actions into operations as has been illustrated in Section 2.4 of the literature review. Understanding how the technologies chosen for this study facilitate the development of actions into operations is very important as it will affect how the activity systems will function. It will also affect the understanding of how the different activity systems interact with one another. The following sections considers the limitations of CHAT.

3.2 Limitations of CHAT

This sections illustrates the limitation of CHAT as a framework for understanding human activity within an educational context. AT has been described by Engeström (1993: 63) as: 'one of the best-kept secrets of academia', due to its affordances for expanding a researcher's perspective in order to facilitate the understanding of human activity in a broad holistic sense. In essence, AT is to do with consciousness and activity. What people do:

...is firmly and inextricably embedded in the social matrix of which every person is an organic part.

(Nardi, 1996a: 7)

From a methodological point of view, Blin (2005: 80) highlights that CHAT does not provide a practical set of methods for investigating qualitative research questions. Nor does it provide a matrix with which to code qualitative data for later analysis.

Nardi (1996a: 7) informs us that:

Activity theory is a powerful and clarifying descriptive tool rather than a strongly predictive theory.

The principle of this tool allows researchers to identify the various elements which constitute an activity system at the three levels of collective activity, individual action(s) and routinized operations. Due to the fluidness of the principles in AT and more precisely CHAT, the inherent difficulty of this theory, therefore, is in detailing the activity and actions that can or do take place when defining activity systems. As mentioned, activity system elements within CHAT are in constant flux and as soon as an action is operationalised it can become the goal of an activity again when it is brought back into conscious action by the subject of an activity. This creates problems for researchers as not every activity system or sub-activity system can be defined by the theory (Halloran, 2001). This results in an incomplete view of the activity system under examination and render potential models of the activity system as being inaccurate.

Conversely, Blin (2005: 57) is keen to point out, while discussing the limitations of activity theory, that the modelling of and representation of learning activity systems may convey a sense of rigidity.

They [The activity system models] may become an end in themselves as opposed to a tool enabling the representation of the constituents of the activity system and its internal contradictions.

(Ibid: 57)

According to Yamagata-Lynch (2010), the use of a narrative tone during the reporting of the findings can avoid or reduce this sense of rigidity.

One of the aims of this thesis is to adapt Blin's (2005) CHAT-based coding scheme to the aims and methodological requirements of this study in order to contribute to discussion surrounding the methodological implications of using CHAT to study complex learning environments. The CHAT-based methodology used in this study is discussed in Chapter 4. The following section explores the concept of contradictions in CHAT.

3.3 Contradictions

Activity Theory points out that it is impossible to avoid contradictions between individual and collective activities. Therefore, the success or failure of a system depends on the ability to resolve such contradictions, as well as on the mutual transformations of individual and collective activities (Hedestig and Kaptelinin, 2003).

(Dippe, 2006: 3)

As stated, Engeström (2001a) sees contradictions as potential sources for change and development. According to de Souza and Redmiles (2003: 3), contradictions can reveal themselves in various ways.

Engeström (2001a: 137) informs us that:

Contradictions are not the same as problems or conflicts. Contradictions are historically accumulating structural tensions within and between activity systems. The primary contradiction of activities in capitalism is that between the use value and exchange value of commodities. This primary contradiction pervades all elements of our activity systems. Activities are open systems. When an activity system adopts a new element from the outside (for example, a new technology or a new object), it often leads to an aggravated secondary contradiction where some old element (for example, the rules or the division of labor) collides with the new one. Such contradictions generate disturbances and conflicts, but also innovative attempts to change the activity.

Importantly, Engeström (1987) states contradictions exist on four levels. Two types of contradictions exist internally and two externaly. Internal contradictions exist within and between elements of an activity system. External contradictions exist between activity systems and more advanced activity systems or between neighbouring activity systems. Contradictions have the capacity to trigger ripple effect within the activity system resulting in contradictions at other levels emerging (Foot and Groleau, 2011).

Within the levels of contradiction identified by Engeström (1987), primary contradictions exist internally within an element (such as the; subject, community, tool, object etc...) within the activity system. Foot and Groleau (2011: 6) provide the following example of primary contradiction in the context of American healthcare:

...doctors working within health clinics in the United States experience the primary contradiction as they provide treatment to their patients as a means to heal them as well as a source of income. Doctors do their utmost to relieve pain and heal sick

people. However, in the U.S. they practice medicine within a socioeconomic system which exchanges this service for a financial compensation that enables the clinic to sustain its (increasingly costly) operations. Thus the object of a typical U.S. health clinic's activity system is inextricably dual: fostering health and increasing revenue.

Within a BLL activity system, a potential example of primary contradiction would be a CALL resource failing to provide sufficient input to the students via multimodal methods, such as through audio visual stimulus or failing to work at all. Another primary contradiction would be the move by some schools in Ireland toward using tablets in the classroom yet the use of any computer within a state examination is strictly prohibited unless otherwise permitted by the appropriate authorities due to learning difficulties (McCormack, 2005).

Secondary level contradictions emerge when new external elements are introduced into an already existing activity system creating a misfit internally within the system (Engeström, 1987). Blin (2005: 53) provides the following example of a secondary level contradiction within the context of an existing language course's activity system:

For example, when a new object enters the language teaching activity, such as students with learning disabilities or students who are at a more advanced level than the norm, conflicts may arise between the needs of these students and the range of teaching materials or facilities currently available.

This example illustrates a misfit or a contradiction between the community and the artefacts available within the activity system.

Tertiary contradictions occur when a culturally more advanced element is introduced into an existing activity system (Engeström, 1987).

Contradictions in this case, appear between the dominant form of a central activity and an introduced culturally more advanced form of the central activity; in other words, tertiary contradictions juxtapose the object of the dominant form of activity with the object of a culturally more advanced activity

(Ekundayo et al., 2012: 5)

Blin (2005) provides the following example of a tertiary contradiction by illustrating the potential difficulties of integrating new technologies into an already established learning environment.

The adoption by a team of innovative language teachers of a new approach to language teaching and learning may be resisted by some elements of the old teaching and learning activity systems. For example, the tools available (e.g. the

technology available may be obsolete) or the administrative rules and procedures in place (e.g. face-to-face teacher-learner and learner-learner interactions) may conflict with the new motive triggered by the need to help their students develop new communicative competences, such as synchronous and asynchronous electronic communication.

(Ibid: 53)

Finally, quaternary contradictions or external contradictions occur between neighbouring activity systems (Foot and Groleau, 2011). Yamagata-Lynch and Haudenschild (2009: 11) tell us that 'quaternary contradictions occur when activity participants encounter changes to their activity that result in conflicts with adjacent activities'. A practical example of a quaternary contradiction according to Trulock (2008) in the context of an office environment would be sales staff failing to update customer records resulting in the marketing staff not having the correct information to run a campaign. Another example of a quaternary contradiction this time in an educational setting would be students participating in a BLL course and a separate traditional format language course at the same time. Those students could adapt the CALL resources from the BLL course to align with the object of the traditional course. This could hypothetically impact on the activity of the students within the traditional course as their use may impact on other language learning activity prescribed by the teacher in the traditional course. This example illustrates the importance of considering the larger context in which activity systems are located when identifying contradictions. This is a particularly important consideration for this study.

According to Kuutti (1995) nearly all real activities are in the process of working through contradictions.

As mentioned, understanding and identifying contradictions is a central element of the study.

One of the biggest challenges associated with the introduction of CALL tools into the traditional and BLL classroom have been the contradictions which arise when new approaches of teaching and learning encounter more historically based approaches.

In a study on understanding contradictions in collaborative activity de Souza and Redmiles (2003: 9) found that:

...by focusing on the tensions and contradictions in the activity, we were able to identify opportunities for improvements in the work... This is possible because activity theory helps observers identify tensions and contradictions as opportunities for reflection and evolution.

By identifying the contradictions which emerge between the different activity systems in the BLL course, the author posits that the various strengths, weaknesses, and limitations of the course can be uncovered. As mentioned, the identification of contradictions enables researchers to distil recommendations and conclusions to inform the design and implementation of future iterations of BLL courses (Blin, 2004, Blin, 2005). In the next section the function mediating artefacts are discussed.

3.4 *What, How, Why, and Where to Artefacts*

Blended learning is ultimately dependent on the integration of artefacts (such as CALL resources) and face-to-face classroom activity or the social actualisation of learned language skills (see Section 2.1). It is necessary therefore to understand the various ways in which artefacts can be used by subjects within an activity system in the context of a blended learning course.

In order to fully understand the purposes of the mediating artefacts used in the study and their respective roles within the various activity systems in which they exist, it is necessary to categorise them with a focus on their uses for the object of language learning. Engeström (2008) posits that it is not particularly useful though to categorise artefacts into external ones and internal or cognitive ones. He proposes four types of mediating artefacts which reflect the way in which these artefacts within the activity system function toward the object and are used by the subject.

The first type is *what* artefacts, used to identify and describe objects. The second type is *how* artefacts, used to guide and direct processes and procedures on, within, or between objects. The third type is *why* artefacts, used to diagnose and explain the properties and behaviour of objects. Finally, the fourth type is *where to* artefacts, used to envision the future state or potential development of objects, including institutions and social systems.

(Engeström, 2008: 129)

Furthermore, Engeström (2008: 129) also states that artefacts are not fixed within these categories and that a why artefact may also be used as a where to artefact.

Although certain artefacts are typically used in certain ways, there is nothing inherently fixed in an artefact that would determine that it can only be used as a why artefact.

This classification of artefacts is very much akin to the functioning of an action within an activity system in that an action can fulfil several objects; artefacts can also fulfil several purposes and be used in different ways.

Lastly the types of artefacts used in this study can be considered or categorised as material-semiotic artefacts (Lemke, 2000), as these types of artefacts are heterochronous which is:

...a long timescale process [that] produces an effect in a much shorter timescale activity.

(Ibid: 280)

Put simply the artefacts can connect long-term language learning efforts such as the development of the speaking skill with the aim of conversing with a native speaker to more short-term goal-oriented activity such as practicing the pronunciation of a word or the use of a tense. All the CALL tools used in this study are therefore also classed as heterochronous.

Three CALL resources (Artefacts) used in the study are identified from a theoretical perspective according to Engeström's (2008) four categories in Table 3.1.

Table 3.1 Overview of the mediating artefacts according to the four categories of artefacts as proposed by Engeström (2008)

Type of Artefact	What	How	Why	Where to
Online language learning platform: Duolingo	X	X	X	X
Online oral production platform: SoundCloud		X	X	X
Spaced repetition system: Anki	X	X	X	X

These CALL resources can play different yet converging roles within a larger activity system of a BLL course. *Duolingo* is a free online language platform that uses a combination of different technologies to provide an introductory language course (Ó Doinn, 2016). *SoundCloud* is an

open online audio distribution tool that enable users to create and share files easily online (Soundcloud, 2017). Put simply, SoundCloud is the equivalent of YouTube for audio files. *Anki* is an intelligent flashcard programme that can be used to assist people in committing new information to memory, such as new vocabulary through spaced repetition (Altiner, 2011). These technologies are discussed in more detail in Section 5.3. Section 3.4.1 expands on the information presented in Table 3.1 and illustrate how these technologies can manifest as different types of artefacts as proposed by Engeström (2008).

3.4.1 Duolingo: online language learning platform

The online language learning platform, Duolingo is categorised within each of the four types of artefacts. It is considered as a what artefact to help describe the language, for example elements of its grammar. This is made possible by the provision of tips and notes at the beginning of a lesson or by the annotated glosses contained within the platform itself to enhance the understanding of words and sentence structure (Jones and Plass, 2002, Plass et al., 1998). The platform functions as a how artefact as it supports the development of multiple skills such as reading, writing and listening which are viewed as objects. The platform also facilitates the development of these skills due to its multimodal affordances. As a why artefact the platform aims to support learners to understand the target language by breaking each sentence down into its component parts. It also illustrates the relations and effects words have on one another in a sentence structure and how these relationships influence the meaning of the words such as when eclipses or lenition are used. Lastly, Duolingo functions as a where to artefact in that it details via its skill tree the areas of the language which the ab initio learner has yet to cover. Additionally, the platform supports structured learning along this skill tree which guides the learner within the course to interact with more complex areas of the language. It is also a heterochronous artefact as it can be used over a period of time to explore more culturally advanced objects.

3.4.2 SoundCloud: an online audio and recording tool

In the BLL course implemented as a part of this study, the affordance of SoundCloud to distribute audio files was used as an online oral production platform. SoundCloud can function as three of the four types of artefacts described above by Engeström; ‘how, why and where to artefacts’. SpeakApps within the activity system for this study does not function as a ‘what artefact’ as it is not used to identify or describe objects. SpeakApps does function as a ‘how artefact’ as it allows the process of communication to be guided in a structured way. For example, students could be directed by the teacher as to what information they are required to provide in their SoundCloud recordings. The object here is the reproduction of structures and language covered in the class or on the online language learning platform. The utilisation of the artefact in this way guides the learner’s use of the language and therefore their interaction with the object facilitating their speaking. This artefact can also function as a ‘why artefact’ by allowing the teacher to diagnose any problems that a learner may have by examining their recordings. It gives the teacher an insight into the progress learners are making and it allows the teacher to respond to their individual learning issues. Finally, SoundCloud can function as a ‘where to artefact’ by providing students with examples of more complex speech in the target language. Providing this input may highlight more advanced objects for subjects to pursue in relation to their current language level.

3.4.3 Anki: intelligent flashcard system

The intelligent flashcard system Anki is capable of functioning as the four types of artefacts within the activity system. Anki’s affordance for fulfilling the criteria of these four types of artefacts is dependent on the level of engagement by the subject with the artefact and on how they use the artefact. Anki can be used as a ‘what artefact’ by a subject should they download a deck that deals with a specific area of the language, like grammar explanations or specific vocabulary. As Anki is dependent on user input for content and therefore is not a ‘what artefact’ in the same way that Duolingo is ‘out of the box’. Anki functions as a ‘how artefact’ by allowing subjects to reinforce the language they have encountered. Anki helps to direct the subjects’

language learning efforts through the facilitation of metacognitive strategies. As a 'why artefact', Anki can be used to diagnose and explain the properties and behaviour of the target language. It can facilitate the revision of verbs with prepositions for example and what effects those prepositions have on meaning. Finally, Anki is capable of functioning as a 'where to artefact' by illustrating to learners the amount of structures or vocabulary that they have covered and what needs to be reviewed or committed to memory. It can only function as a 'where to artefact' should the subject choose to actively engage with the technology.

The description of the three CALL technologies used within this study demonstrates that they can be aligned with the four types of mediating artefacts as described by Engeström (2008). The affordances of the tools to be categorised by more than one type of mediating artefact provides the subject with the opportunity to interact with the target language in divergent ways.

This affords the learner choice which facilitates different learning preferences, the use of metacognitive strategies and the opportunity to interact with the language via the four language skills; listening, reading, and writing. Describing and defining the artefacts in these terms is important for this study as it dictates how the technologies will be used within the activity systems and will be used to highlight which areas of the blended language learning mix are weak or lacking. Using three technologies mitigates the drawbacks associated with each one. This also builds focus shifts into the course as has been recommended by the theoretical design model discussed below (Blin and Jalkanen, 2014).

3.5 Summary

This chapter discussed the three generations of AT and highlighted the benefits of using CHAT to study BLL courses. CHAT provides the flexibility of different elements within the activity systems and the relationships between them. This level of flexibility provides ample opportunity to develop a holistic overview of a research topic by exposing contradictions among the constituent elements of activity systems both defined and undefined by the researcher. De Souza and Redmiles (2003: 9) state that activity theory:

...is open ended, which though a challenge, allows for the introduction of new ideas and refinements. It is non-invasive, using open-ended interviews or even more informal observations of work... It readily yields to iterative refinement. When more detail is needed in a model, additional activities may be named and analysed.

It is for these reasons that CHAT holds such potential for studying a BLL course as it provides researchers with the flexibility to investigate different sub-activity systems and different elements within these systems. The next chapter will discuss this study's methodology and the issues relating to the implementation of CHAT as a guiding theoretical framework.

Chapter 4 Methodology: A CHAT-based qualitative approach

4.1 Introduction

This chapter describes in detail the methodology used to carry out this qualitative study. The chapter presents the steps that were taken to develop the study's research design over several phases. The study was comprised of a pilot study and a main study. As noted in Chapter 1, the methodology for this study was heavily influenced by the work undertaken by Blin (2005). Blin's (ibid) work investigated the use of *computer assisted language learning* (CALL) and the development of learner autonomy. As the focus of this study differs to that of Blin's (ibid) it was necessary to adapt certain elements of her research design in order to better pursue this study's research aims. The overall aim of this study was to inform the design and provision of *ab initio* language courses in a *blended learning* (BL) environment. A secondary aim of the study was to investigate the BL course using a combination of research instruments and techniques developed using an iterative research design. The instruments and techniques used in this study were student reflection sheets, participant observations, background questionnaires, and interviews. Importantly, working from a *Cultural-Historical Activity Theory* (CHAT) perspective also required that the design of the methodological approach adhered to CHAT concepts and principles. In order to facilitate this requirement, the student reflective sheet and questionnaire used in this study were adapted from Blin's (ibid) original instruments. These instruments were designed based on CHAT principles and proved adaptable to the aims of this study. This chapter also functions as an audit trail for the study. Clearly describing the steps that were taken over different phases of the study helps to establish the credibility of a study (Lincoln and Guba, 1985). Establishing the study's trustworthiness is discussed further in section 4.3.1.

This chapter begins by describing the object of the study. This is done with a view to informing the reader of the motivations for the research. The study's qualitative research strategy and its origin are then discussed. During this discussion the primary research question will be

introduced. Sub-questions are also discussed in Section 4.2. Following this, an overview of the study's research design is provided to the reader. The data collection procedures and research instruments used in the main study are then described. This description also notes the limitations and weakness associated with each approach. The discussion then proceeds to describe the primary unit of analysis of the study. Leading on from this discussion the boundaries of the study are defined according to CHAT principles and concepts. The chapter concludes by considering methods for data analysis and ethical considerations in this study.

4.2 Object of the study

This study seeks to inform societal practice regarding the provision of language education through BL courses for ab initio learners using open or freely available online resources. This study is aligned with the assumption that “social scientific research should be relevant to societal practice” (Somekh and Nissen, 2011: 96). Theoretically, the study aims to identify tensions and contradictions that can emerge in a complex learning environment such as in a BL course in order to inform future BL course design and BL pedagogical practices. The need to study complex learning environments in order to inform pedagogical practices has been highlighted by numerous researchers in recent times (Neumeier, 2005, Wang and Hannafin, 2005, Bergroth-Koskinen and Seppälä, 2012). This is an ongoing necessity as technology continues to progress at its rapid pace. Unfortunately, there is a lack of pedagogical guidance currently available in relation to the design of ab initio blended learning courses (Ó Doinn, 2017, European Commission, 2014). This is particularly true for minority languages.

Specifically, the study seeks to:

- Implement a BLL course using a rich mixture of face-to-face classes and online technologies for the enhancement of ab initio learners' language competence;
- Gain insight into the optimal design and implementation of BLL courses for ab initio learners by exposing contradictions in the course's activity system;

- Investigate the application of CHAT in the study of BLL courses for ab initio learners;
- Investigate the appropriateness of using Blin's (2005) CHAT-based coding scheme in the study of a BL course for ab initio language learners;
- Identify effective elements, such as a particular CALL tool, components of a tool, class exercises, tasks or activity within the BL course's activity system.

4.2.1 Research question

To pursue the aims of the study the following primary research question was devised in accordance with CHAT principles and terminology;

- **What contradictions emerge in an ab initio blended language learning course?**

Contradictions as they are understood in this study are explained in Section 3.5. In order to guide the research process, the researcher also devised the following sub-questions that focus on different elements within the activity system of the course. These questions were devised using CHAT principles and concepts. These sub-questions are as follows:

- What learning objects did the subjects pursue over the duration of the ab initio BLL course?
- What actions did the subjects engage in to pursue their learning objects?
- What elements of the activity system contributed positively to the subjects' learning outcomes?
- What specific levels of contradictions emerge over the duration of the ab initio language course?

As the research questions and aims of this study related to real people operating in real life contexts a qualitative approach was necessary to pursue this study (Gibbs, 2008: X, Miles and Huberman, 1994: 5-7). Using a qualitative approach enabled the author to uncover the

individual experiences of learners operating in the BLL environment. Qualitative research and the qualitative approaches used in this study are discussed in the following section.

4.3 Qualitative research approach

Qualitative research is concerned with the day-to-day activity of human actors in the real world (Denzin and Lincoln, 2000: 3). The purpose of qualitative research is to transform the world into a set of representations that can be analysed by the researcher (Mason, 2002, Denzin and Lincoln, 2000). Qualitative approaches allow researchers to gain insight into the inner experience of participants (Richardson, 2008). Qualitative research may be approached using various strategies, such as; thematic, case study, phenomenology, narrative and ethnographic research (Miles and Huberman, 1994: 7). Qualitative data collection techniques and research instruments include field notes (face-to-face observations and online observations of participants), artefacts constructed by participants, documents from participants and interviews (Flick, 2009). Another important characteristic of qualitative research is that the researcher is considered in some cases to be the main data collection instrument (Miles and Huberman, 1994, Merriam, 2002). Qualitative data is brought together using methodological triangulation in order to generate a more holistic view of the phenomenon under study (Flick, 2009). Finally;

Qualitative methods have the advantage of focusing in on the real-life problems, reflecting the world as it actually is, and are more likely to come up with unexpected results.

(Banister et al., 2005: 18)

As previously mentioned, the qualitative research approach used in this study adopts the methodological approach developed by Blin (2005) to investigate learner autonomy and agency among French language learners. From a qualitative perspective Blin's (ibid) approach can be described as an ethnographic case study. Blin (ibid) does not use this term to describe her study. Perhaps one reason why Blin (ibid) did not use this term in the classification of her study is that ethnography may be viewed as a methodological approach used as a part of CHAT-based study.

Despite this, Blin's (ibid) study does however show many characteristics of ethnographic research. An explanation for this classification will be given in the following discussion.

Ethnographic research usually involves the researcher observing participants in their daily lives and capturing these observations for later analysis. Observations do not feature as a part of Blin's (ibid) approach, though it did use multiple research instruments to gather data, such as; a student background questionnaire and student reflective sheets. A key feature of ethnographic research is that it is 'crucially a multimethod form of research' (Banister et al., 2005: 34). These methods may include any of the qualitative data collection techniques and or research instruments already mentioned in this section. Numerous studies have shown that the ethnographic approach to educational research is an effective approach for informing research design and pedagogical practices (Ary et al., 2018, Creswell and Poth, 2017, Eisenhart, 2017). Additionally, the underlying theoretical framework (CHAT) used by Blin (ibid) in her study has been extensively used to guide educational ethnographic research similar to the research undertaken in this study (see; Barab et al., 2002, Barab et al., 2004, Dippe, 2006, Yamagata-Lynch, 2010).

Blin's (2005) study investigated the weekly activity of language learners in two separate undergraduate language courses at Dublin City University (DCU). This study occurred over two semesters in the academic year 1998-1999. These acted as separate cases for Blin (ibid) which enabled her to focus on the development of learner independence and interdependence. The participants in her study were intermediate French language learners undertaking the language course as a part of their undergraduate degree programme at DCU. Blin (ibid) did not act as the teacher during the course of the study. Participants kept a reflective learning diary during the language course. The learner diary was written in the target language and it fulfilled both a pedagogical and methodological function. Blin (ibid: 82) writes that:

...diaries may help to promote learner autonomy by encouraging students to take responsibility for their own learning, by facilitating a dialogue between teacher and

learners, or by helping students make connections between their language classroom experience and their learning and use of the target language outside the classroom.

Blin (ibid) also made use of other sources of data to tease out the contradiction and tensions evident in the course. Examples of other learner generated artefacts included postings in CMC environments, emails and websites (ibid: 82). As mentioned, she did not make use of classroom-based observations nor did she engage in direct face-to-face interactions with the participants. The above definition of Blin's study as an ethnographical case study is therefore appropriate in that ethnographic case studies can be conducted without direct contact with participants (Yin, 2003). These artefacts were analysed using a bespoke CHAT-based coding scheme to capture the tensions and contradictions that emerged over the duration of the language course (Blin, 2005: 129).

4.3.1 Methodological requirements of this study

The practical implications of adapting Blin's approach (2005) involved defining this study's methodological requirements. Defining these requirements served to guide the overall research design for the study. As this study was concerned with the identification of contradictions in an ab initio blended language learning course, an important methodological requirement for the study was the recruitment of ab initio Irish language learners. This necessitated uncovering participants' language learning backgrounds to ensure that they were not a *false-beginner*. This methodological requirement was fulfilled using a student background questionnaire. As the study was conducted over a six-week time frame there was also a methodological requirement to account for temporality while collecting data. This necessitated capturing data longitudinally over the duration of the language course as opposed to a single episode (such as a recorded speaking assignment). In order to fulfil this requirement, a student reflective sheet (Section 4.5.5) and a group interview (Section 4.5.6) were employed. These instruments helped to reveal the expansive and transformative actions that took place in the learning environment as well as contradictions and relationships between and within elements of the activity system. Another

methodological requirement of the study was to define the unit of analysis. The unit of analysis in this study was the weekly sub-activity system of the overall BLL course. Additionally, it was necessary to define the boundaries of the study. This was done in order to facilitate the identification of relationships between the different interacting activity systems within the course. Defining the study's boundaries also helped to identify the contradictions that exist within the BLL course.

Another methodological requirement was to illustrate this qualitative study's trustworthiness to the reader. Within quantitative study's, Flick (2009) points out that reliability, validity, generalizability and objectivity are central concerns. Many researchers expect that these same principles be established in qualitative studies (Billups, 2014: 1). Golafshani (2003) states that the use of such terms in a qualitative study is misleading. Additionally, Patton (2002) and Bryman (2004) maintain that the use of these terms in a qualitative setting is inappropriate as these terms draw on a view of the world that is rooted in the natural sciences. Lincoln and Guba (1985) propose analogues for these concepts in qualitative studies as a part of their trustworthiness framework for qualitative researchers. Table 4.1, taken from Billups (2014), provides the reader with an overview of the qualitative analogues for the quantitative terms mentioned.

Table 4.1 *The trustworthiness framework*

The Trustworthiness Framework: Quantitative to Qualitative Applications			
<i>Quantitative</i>	<i>Qualitative</i>	<i>“translation”</i>	<i>Essential Question</i>
Validity	Credibility	Truth	Are results believable? Do they appear truthful?
Reliability	Dependability	Replicable	Are results consistent over time?
Generalizability	Transferability	Applicable	Are the results applicable to similar settings?
Objectivity	Confirmability	Neutrality	Corroborated through triangulation?
Accuracy	Authenticity	Reality(ies)	Are all ‘realities’ represented?

The qualitative principles and the essential questions raised in Table 4.1 can be addressed through a variety of different approaches (Lincoln and Guba, 1985) as is the case in this study. The credibility of a study can be established using multiple research techniques over an extended period of time (Patton, 1999). Providing readers with a thick description of the study is an effective approach in establishing a study’s dependability and transferability (Miles and Huberman, 1994). The confirmability of a study’s methodological approach can be established through the use of triangulation (Richardson, 2008). Additionally, confirmability can be established by providing an audit trail to reader. As mentioned in Section 4.1, this chapter serves to functioned as an audit trail for this study.

The design of the research instruments and techniques used to gather data in this study is discussed further in Section 4.5. The unit of analysis and the boundaries of this study are discussed in more detail in Section 4.6. Another practical implication of adapting Blin’s approach required that a teacher devise and implement a blended learning syllabus. Due to the nature of research undertaken at PhD level, the author performed the role of the language teacher and researcher. The author’s role as the course’s teacher provided him with the opportunity to make observations of learner activity. Observations as discussed further in Section 4.5. The

implementation of the research methodology is discussed next to provide the reader with an overview of the study's different phases.

4.4 Implementation of research methodology

In order to develop techniques and research instruments for this study, an iterative research design was followed. Cobb et al. (2003: 10) state that iterative designs feature cycles of invention and revision. According to Wang and Hannafin (2005) researchers pursuing an iterative research design must work together with participant to develop processes, implement those processes, conduct analysis and implement redesigns based on this analysis. The research design for this study was divided into four phases in order to facilitate the iterative design process. These phases served to guide the implementation of the study's methodology by focusing attention on particular areas relevant to the study's aims and methodological requirements. These phases and the relevant practical steps that were taken to pursue this study are now described. Figure 4.1 below gives an overview of the study's four phases.

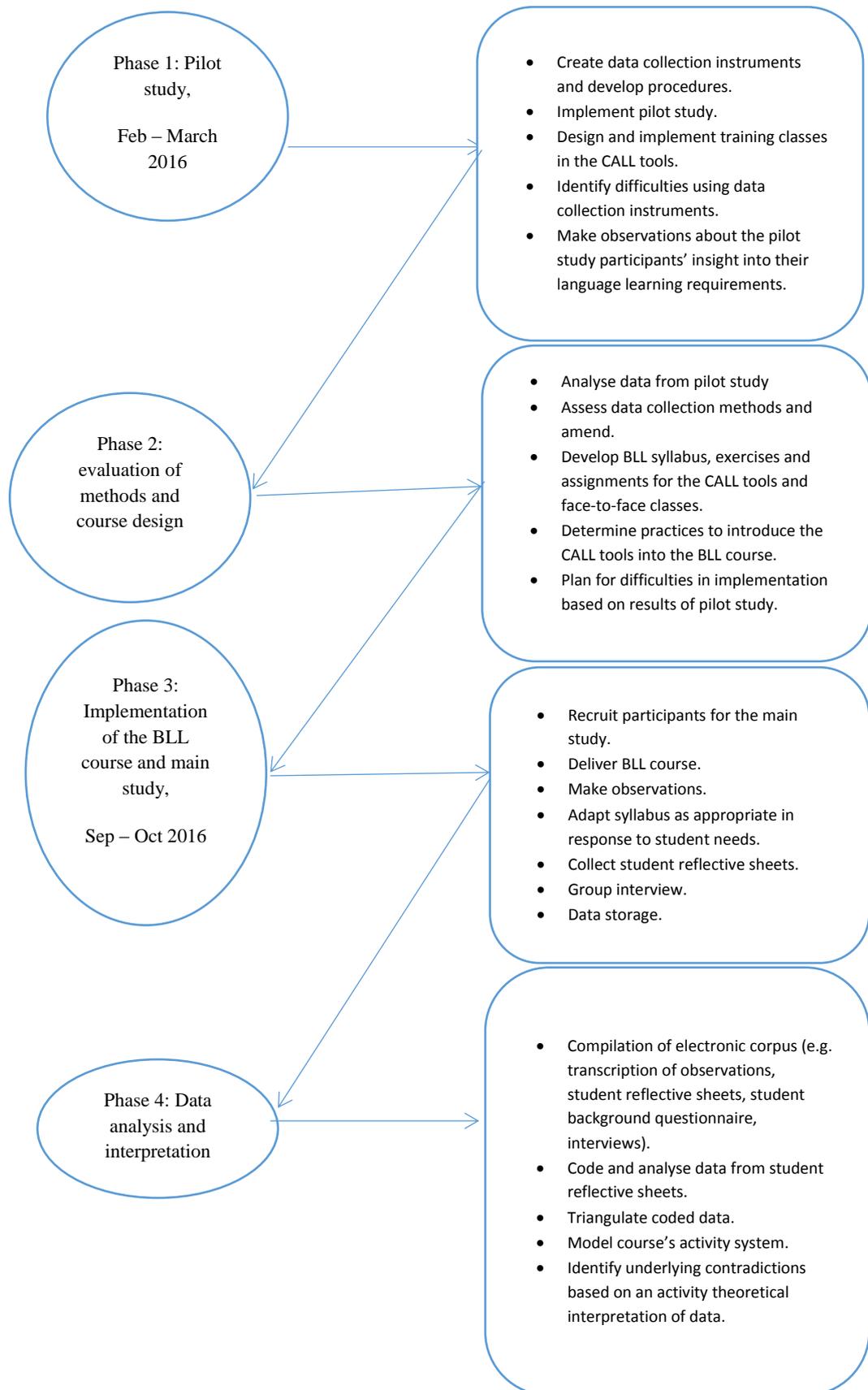


Figure 4.1 Four phases of the research design

It was found that the study's design served to identify milestones in the research and subsequently influenced the overall management of time and resources. Planning the study in this way served to guide the iterative design process.

Tighter designs make it easier to decide what data or which parts of the data are relevant and irrelevant to the investigation, and they also make it easier, for example, to compare and summarize data from different interviews or observations.

(Maxwell, 2013: 131)

An iterative research methodology focuses on multiple short cycles between planning, field research and analysis (Pratt, 2009). Importantly, iterative research may take various forms. Mills et al. (2010: 503) state that;

The interplay between elements of the research, such as that between design and discovery, or among data collection, preliminary analysis, and further data collection, are examples of an iterative approach in qualitative research.

All of these elements played a role in the iterative design process of this study as will be discussed in the overview of the study (see Section 4.4.1).

Before providing the reader with an overview of the study the author would like to highlight that he did not work in isolation in the course of this iterative design process. From the beginning, he worked closely with his supervisory panel to revise and develop procedures and research instruments to pursue the aims of the study. Additionally, the author was fortunate to be able to meet with and receive feedback from Prof. Françoise Blin, who acted as a critical colleague, regarding the design of the research instruments and techniques employed in this study. From a methodological perspective, these meetings adapted the Delphi method.

The Delphi method is an approach to structured communication that facilitates decision making through discourse with experts in their relevant fields (Linstone and Turoff, 1975). Hyndman and Athanasopoulos (2014: 70) state in relation to forecasts (decisions) that;

The method relies on the key assumption that forecasts from a group are generally more accurate than those from individuals. The aim of the Delphi method is to construct consensus forecasts from a group of experts in a structured iterative manner. A facilitator is appointed in order to implement and manage the process.

In practice the author acted as facilitator between his supervisory panel and Prof. Blin, who acted as the panel of experts. The facilitator implemented the experts' recommendations in the development of the study's methodology. This was done iteratively over the study's 4 phases. Specifically, one-on-one meetings are classified as *Mini-Delphi* (Lofaro, 2016). Adapting the Delphi method ensured consensus among the expert opinions regarding the optimal methodological approach to achieve the aims of this study.

Meetings with Prof. Blin began before the commencement of the pilot study and ended after the conclusion of the main study. In order to contribute to the trustworthiness of the study Appendix A provides the reader with examples of correspondence and notes on meetings with Prof. Blin.⁴ As mentioned, her methodological approach played an crucial role in guiding the design, research and analysis efforts of the author in this study.

The feedback received regarding the methodological choices made in this study during the meetings with Prof. Blin, was highly valuable. The iterative research design benefited from these meetings throughout every phase of the study. The meetings provided the author with keen insights into the methodological requirements of Blin's original study, which in turn improved his understanding of this study's methodological requirements. A deeper insight into the theoretical framework underpinning Blin's (2005) methodological approach was also gained. This was crucial in selecting appropriate techniques, and in designing effective research instruments and procedures. Finally, these meetings also informed the implementation of the CHAT- based coding scheme as applied to the research instruments used in this study. This further contributed to fulfilling the study's methodological requirement of uncovering the participants' actions longitudinally as they unfolded in different contexts. The following section provides the reader with a narrative overview of the study.

⁴ Prof. Blin has consents to the inclusion of these documents in the appendices.

4.4.1 Overview of the study

Phase 1 of the study involved adapting the research instruments and procedures in Blin's (2005) original study to fit the needs and aims of this study. It also involved testing these instruments and procedures in a real world setting. The author and his supervisory panel decided that a pilot study was the most appropriate way to test and develop these instruments and techniques. Importantly for this study, pilot studies are flexible and contribute to research design efforts (Yin, 2003). Additionally, as the researcher is the main data collection instrument in qualitative research (Merriam, 2002) the pilot study offered the author a valuable opportunity to develop his observational skills and to refine his research questions. Furthermore, the pilot study offered the researcher insight into other practical issues surrounding the main study. Such examples of these issues include making contact with United States based institutions, recruiting participants and applying for ethical approval. The completion of the pilot study assisted the researcher in preparing for the main study conducted at Carnegie Mellon University, Pittsburgh. The study's ethical considerations are discussed in more detail in Section 4.8. The various ethical approvals the study received can be seen in Appendix G.

The pilot study took place in the University of Wisconsin, Milwaukee (UWM) from the 29/02/2016 to the 30/03/2016. The pilot study took place during Celtic 104, a spring semester beginner's Irish language class held twice a week at the university. Each week in the pilot study the researcher introduced a CALL tool to the class that would be used to complete an assignment or assist the students with an element of their studies. The class consisted of eleven students, ten of which were participating in Celtic 104 to fulfil their foreign language requirement as a part of their liberal arts degrees. Further details related to the research instruments used in the pilot study are as well as excerpts from the group interview are provided in Appendix B, C, D, E and F. The research instruments and techniques used in the pilot study were a background questionnaire, an observational sheet and a group interview. The background questionnaire used in the pilot study along with the template for the observation sheet can be seen in Appendix C. An example of a

completed pilot study observation sheet can be seen Appendix D. The interview questions along with a transcribed segment of the pilot study interview are given in Appendix E. An overview of the results of the pilot study interview is provided in Appendix F.

Practically, tasks using the CALL tools were created based on the content covered in class and were designed to further participants' oral and aural interactions with the target language outside of the classroom. The researcher introduced three CALL tools during the pilot study, Anki intelligent Flashcards, Irish for English Speakers on Duolingo and SpeakApps as well other online helpful Irish language resources (Tearma.ie, Logainm.ie, Abair.ie, Potafochal.com and Teanglann.ie). A screenshot of content provided to the students on the UWM classroom is available in Appendix B.

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Examples of the tasks the pilot study participants were asked to complete were the production of a monologue describing oneself and one's interests using SpeakApps (see Section 5.3.5) or the completion of Duolingo Assignments using the Duolingo mobile app (see Section 5.3.7). The aim of the pilot study was not only to test the study's research instruments and to refine the researchers' observation and group interview skills but also to assess recent ab initio language learners experience of technologies the author had identified as having potential for facilitating Irish language learning. Pedagogically, the motivation to conduct a pilot study was that it offered an opportunity to use the CHAT framework to investigate participants' perceptions of different

types of CALL resources. These CALL resources were selected based on previous research undertaken by the author and his primary supervisor (Ó Doinn, 2014b, Ó Doinn, 2014a, Nic Giolla Mhichíl et al., 2014a, Ó Doinn, 2016, Nic Giolla Mhichíl et al., 2015). As these resources were integrated with Celtic 104's syllabus, the author was afforded more flexibility to focus on the development of research instruments and procedures. Additionally, by 'piggy-backing' on another course the researcher was able to document practical issues surrounding training students in the technologies at an ab initio level. The motivation to do this stems from the understanding that learners' dispositions, aptitudes and attitudes toward the chosen CALL tools need to be taken into account in BLL design. 'These considerations serve as a starting point... in the design of a BL environment' (Neumeier, 2005: 165). Finally, the pilot study provided an opportunity to reflect on the types of face-to-face exercises that could be implemented as a part of the BL course.

The integration of the CALL tools was coordinated with the Irish language teacher and Director for Celtic Studies at UWM. As mentioned the instruments used during the pilot study were a student background questionnaire, a field work journal to record observations in class and online and a group interview.

Phase 2 of the research design involved amending the data collection instruments and techniques in order to more effectively capture data relevant to the study's main research question as described in Section 4.2. The student reflective sheets for this study were also developed during this period. Feedback on their layout was received from Blin. Additionally, the experiential knowledge gained during the pilot study contributed greatly to the final choice of technologies, training procedures and face-to-face exercises implemented in the main study. The language course's design and technological blend form part of the empirical analysis and are discussed in Chapter 5.

Phase 3 involved implementing the BLL course and collecting data to describe the course's activity system. This constituted the main study for the research presented here. Leading on from the

fieldwork conducted at Carnegie Mellon University in September and October of 2016, the study entered its final phase. Phase four constructed the course's activity systems for data analysis and interpretation. The data collection instruments and techniques used in the main study are discussed next in Section 4.5. Coding, triangulation and data analysis are discussed further in Section 4.7.

4.5 Data collection techniques and instruments

As mentioned above, the primary research instruments and techniques used to collect data in this study were a CHAT-structured observation sheet, a CHAT-structured student reflective sheet and a student background questionnaire. A group interview was also conducted at the end of the main study. Observations of the participants' activity were made prior to every class (online observations) and after each face-to-face contact (language class). Student reflective sheets were collected once per week for the first five weeks of the study. The student background questionnaire and the group interview served to bookend the study. The questionnaire served as start point to the study. The group interview captured participants' reflections, opinions and thoughts at the end of the course. This is the end point in the timeline of the study's data collection phase. The motivation to use multiple data collection techniques and instruments is based on the understanding that every method has its own shortcomings related to the type of data they can record (Bryman, 2004). Additionally, the motivation to use multiple methods to capture data from different sources stems from the understanding that;

...a task is never just the task the experimenter designed. It is always interpreted and reconstructed by the subject by means of his or her internalized 'psychological instruments' that cannot be strictly controlled from the outside.

Engeström (1987: 15)

Within educational research the goal of data collection is to capture the expansive cycles of learning that occur over a specific timeframe in order to make it accessible for later analysis (Barab et al., 2001: 72). Using multiple research instruments helps to establish a chain of evidence from different perspectives. This in turn contributes to establishing the trustworthiness of a study

(Yamagata-Lynch, 2010: 76). Lincoln and Guba (1985) liken this process of using multiple data collection methods to that of fishing with multiple imperfect nets.

It is as though a fisherman were to use multiple nets, each of which had a complement of holes, but placed together so that the holes in one net were covered by intact portions of other nets.

(ibid: 306)

This is one of the primary motivations for using multiple methods in the data collection phase of the study. Additionally, these methods helped to capture data over the entire timescale of the main study. Barab et al. (2001: 72-73) state that:

...data collection must... be situated in social interactions that are distributed across time and space – not simply an individual’s accounting of those interactions’.

Using multiple methods of data collection necessitates triangulation (Denzin and Lincoln, 2000, Patton, 2002). Triangulation is discussed further in Section 4.7.

The data collection methods employed in this study are discussed next. Mason (2002: 148) states that one way for researchers to think about the validity or the credibility of their data collection methods is to reflect on their effectiveness for capturing data. The discussion of the development of the research instruments below illustrates the iterative design process and the author’s reflections on their design and their appropriateness for pursuing this qualitative study.

4.5.1 Student background questionnaire

A background questionnaire was used to generate a profile of the research participants in the study. This data captured with the questionnaire also provided insight into the participants’ prior language learning experience either with or without technology. The background questionnaire helped to fulfil the first methodological requirement listed above. An example of the questionnaire is available in Appendix H. The questionnaire adapted questions from Blin’s (2005: 300) original background questionnaire. The final layout of the questionnaire was influenced by feedback from the author’s supervisory panel as well feedback from Prof. Blin. Additionally, the layout was influenced by the author’s practical experience of administering the questionnaire

during Phase 1 of the study. Notes on the amendments made to the questionnaire are available in Appendix I. The questionnaire also functioned to identify the types of digital devices the research participants had access to. The final version of the questionnaire was administered at the beginning of the main study in the orientation portion of the blended course.

In order to reconstruct the activity systems according to the CHAT framework, it was necessary to capture a snapshot of the research participants at the beginning of the course (Blin, 2010: 159, Blin and Jalkanen, 2014). The data collected in the questionnaire provides a start point to document the development of the course's activity systems. This in turn facilitated understanding the subjects' position in the process of change. The questionnaire also helped to uncover participants' personal motivations (objects) for taking the course. The identification of student motivations early on influenced the types of activities and the content covered during the course. These activities were also aligned with the course's formal learning objects as laid out by the language teacher. Additionally, planning for student motivations and goals helped the teacher (in this case the author) to maintain student engagement (Nystrand and Gamoran, 1991, Dörnyei, 2003). This was accomplished by choosing materials that were relevant to the students' interests and by designing exercises that gave students a real reason to communicate in the target language. The language teacher also documented his interactions with the class through observation sheets. These sheets also helped to document the changing needs, interests and motivations of the students over the duration of the language course. In practice the observation sheet functioned as a lesson planning tool. Observation as a qualitative research technique and the design of the CHAT-structured observation sheet are discussed next.

4.5.2 Participant observation

As stated previously, participant observation was used as a data collection technique in this study. Fraenkel et al. (1993) define participant observation as the observer becoming a participant in the observed situation, in this case the author also performed the role of the course's teacher. According to Toren (1996: 102);

Participant observation is the most radical of all the qualitative methods, and properly used it can produce data that are enlightening precisely to the extent that they are unlooked for. It is a method that can be applied to any people, anywhere.

DeWalt and DeWalt (2011) state that participant observation is a method where a researcher takes part in the daily lives of a specific group of people as one of the means of learning about the explicit and tacit aspect related to that group. Jorgensen (1989: 1) asserts that participant observation is “a unique method for investigating the enormously rich, complex, conflictual, problematic, and diverse experiences, thoughts, feelings, and activities of human beings and the meanings of their existence”.

The participant observations in this study were documented using a CHAT-structured observation sheet. These sheets formed part of a fieldwork journal. A fieldwork journal contains ‘experiences, ideas, mistakes, confusions, breakthroughs and problems that arise during fieldwork’ (Spradley, 1980: 71, quoted in Flick 2009: 297). Within teaching and learning, diaries or reflective journals are not a new phenomenon and they help teachers to plan and improve the pedagogical approach to their subjects (Suzuki, 2004). Observations were documented by the teacher in order to identify the actions taken by participants in the face-to-face and online portions of the course. The observation sheets also provided details of other activity theoretical elements within the course such as the course’s rules, division of labour, artefacts and learning objectives. Furthermore, the observation sheet also served a practical purpose in that it functioned as a lesson planning tool for the teacher. The final version of the CHAT-structured observation sheet used in this study can be seen in Figure 4.2 below.

Date and time of observation:

Location of observation:
Length of observation:
Number of students present:

Object of activity

The object of this activity episode was to:

Tools used

Teacher:

Student:

Actions observed within the activity

Observations prior to class (online):

In class face-to-face observations:

Division of Labour

Student division of labour prior to class:

Teacher in class division of labour:

Student in class division of labour:

After class: Assignments

Rules

Rules related to exercise and online assignment:
Observed difficulties/problems
Difficulties with the technologies:
Difficulties in the physical classroom:
Observed Outcomes

Figure 4.2 CHAT-structured observation sheet and lesson planner

Over the duration of the study two observation sheets were completed each week. The sheets are divided into 8 separate sections. This was done to direct the researcher’s attention to certain elements within the activity system. Structuring the observation sheets in this way facilitated data triangulation and analysis in Phase 4 of the study. The structure of the sheets allowed for ease of reference to particular elements that emerged within the activity system over the duration of the study. Critically for this study, the sheets helped to document the activities taken by the participants in both the online space and in the physical classroom. Online observations were made using learner analytics provided by learning tools such as Duolingo or SpeakApps. This quantitative data was included in the qualitative narrative of the observations.

As mentioned in Section 3.6, one of the limitations of using CHAT is that it does not provide a prescriptive set of methods for pursuing qualitative research (Blin, 2005: 80). A consequence of this was that no template for a CHAT-structured observation sheet was available to the author to guide his observational activities. In order to overcome this methodological challenge

recommendations from qualitative researchers, Flick (2009: 299), and Miles and Huberman (1994: 54), were followed regarding the layout of participant contact sheets. Importantly, the layout of the observation sheet also drew on recommendations and feedback from Prof. Blin. The author worked with his supervisors to refine the layout of the final observation sheet above.

The layout of the CHAT-structured observation sheet also facilitated the inclusion of the temporal-contextual dimension and avoided producing single snapshots of events (Miller and Friesen, 1982). This was accomplished by linking the observations of certain periods within the course such as observations made at the beginning of the week and at the end of the week. This approach to the study of social phenomenon produces more holistic data and contributes to rich and more meaningful interpretations of that data (Orlikowski and Baroudi, 1991, Miller and Friesen, 1982, Avital, 2000). By using CHAT to design the observation sheets, different elements of the activity system could be identified and examined more readily. Additionally, this enabled the researcher to more accurately capture the essence of activity within the activity system at different points in the timeline of the study. This approach was posited to hold greater potential for identifying difficulties as they emerged within the course.

The motivation to use observations as a data collection method was partially due to the dual role of the principle researcher and the language teacher in this study (see Section 4.5.3 for procedure's followed by the researcher while making observations).

Observation is the best technique when an activity, event, or situation can be observed first-hand, when a fresh perspective is desired, or when participants are not able or willing to discuss the phenomenon under study.

(Merriam, 2002: 13)

Additionally, from a theoretical perspective documented observations are an ideal way of recording human activity and have been used in activity theory studies before (Mwanza, 2002).

As mentioned, observations are produced as a type of structured field notes in this study. Field notes are a form of ethnographic participant observation (Emerson et al., 1995). They allow

researchers to situate themselves in the world of the participants under study. The researcher in this study is considered to be a participant observer as he was a member of the group (the teacher) at the time of the study. Field notes fit within the study's research paradigm as they are 'the classic medium for documentation in qualitative research' (Flick, 2009: 296). Field notes also help to reveal deeper understandings to educational researchers of the particular phenomenon under study (Hoepfl, 1997). Teachers find themselves in a unique position to study their students with observation as they already operate within their world of learning. It is also possible to study the production of student artefacts online through observations (Blin, 2005, Flick, 2009: 264). Increasingly within the field of CALL there is recognition of the necessity to include the teacher experience. Egbert et al. (2009) state that teacher voice and experience are essential while conducting research into CALL.

Research that explores the effects of integrating technology-based activities into traditional face-to-face classrooms could benefit from delving deeper into the knowledge that teachers have of their classrooms, their students, and their pedagogical strategies. Teacher voice can play a vital role in this kind of research by explaining not only the online components of the class and how students react to them but also how face-to-face tasks facilitate success in the technology-based activities or assignments.

(ibid: 760)

Observations documented in field notes based on classroom contacts and student online artefact use show potential for achieving this.

The purpose of field notes is to:

Reduce [italics in original] the welter and confusion of the social world to written words that can be reviewed, studied, and thought about time and time again.

(Emerson et al., 1995: 8)

One way of reducing this 'welter and confusion' is to follow the 'rule of economy' (Flick, 2009: 298). That is;

...record only as much as is definitely necessary for answering the research question.

(Ibid, 2009: 298)

Structuring the observation sheets according to CHAT principles was one way of embedding this rule of economy into the author's observation activity. The procedures followed while making observations also played an important role in recording information and details about the course relevant to the study's research question. These are discussed next.

4.5.3 Observational procedures

The procedures for making observations were informed by the experience of making field notes during the pilot study and with recommendations from the literature. Lodico et al. (2010) state that field notes can be produced from either a descriptive or reflective perspective. While making observations the researcher attempted to include both of these perspectives. This approach facilitated the integration of the teacher's voice and the technology-based activities and assignments into one consistent narrative.

The procedures followed during the study are listed sequentially below:

1. Preparation of observation sheet: Due to the layout of the structured observation sheet certain portions of the document could be filled in before class. The information that could be inserted into the form here related to the teacher's objects for the class, tools to be used, online observations and the rules impinging on the activity system. This meta-data helped the author by providing him with referential content while analysing the data.
2. Photograph blackboard after class: Photographing the blackboard helped the researcher to recall details about the class that had emerged during various exercises and activities.
3. Complete field notes: Immediately after contact with the research participants in the class the researcher wrote descriptive field notes using the structured observation sheet as seen above. The researcher did not discuss what he witnessed with other individuals until the field notes were written, this is in line with recommendations from Emerson et

al. (1995: 41). The structured observation sheets were divided into several sections in order to record information about specific elements related to the course's activity system. 'The goal [of documenting observation] is to get as much down on paper in as much detail and as quickly as possible, holding off any evaluation and editing until later' (ibid: 47).

4. Revisit entries: After a day or so the researcher revisited the observation sheet to add thoughts or other additions of information pertinent to the study in line with recommendations from the literature (Flick, 2009: 296). This process helped to establish the reliability of the data (ibid: 386). The researcher used the first and the third person to describe the classes in the field notes.
5. Back up everything: Observations were recorded using a word processing package and then backed up using the cloud and an external hard drive to prevent against data loss. Data protection is discussed further in Section 4.8 below.

4.5.4 Limitations of participant observational research

Observations in this study are made in different contexts (online and in class) in order to reduce the impact of selectivity. As observations are dependent on the researcher, the data that is recorded is subject to selectivity. Selectivity can begin as soon as the researcher begins to construct a subject or study's reality on paper (Miles and Huberman, 1994).

This selectivity concerns not only the aspects that are left out, but also and above all those which find their way into notes.

(Flick, 2009: 297)

One way of mediating this selectivity is by using two or more data collection methods for the purposes of triangulation (Patton, 2002, Flick, 2009, Gray, 2013). These data collection methods can include questionnaires, reflective sheets and participant constructed artefacts such as diaries or video blogs. As discussed in Section 4.3, this study utilised different methods as part of the research strategy for this exact purpose. That is; to attempt to make the researcher's subjective

position(s) more salient to him while identifying different tensions and contradictions within the activity system.

Neutrality is not an easily attainable stance, so all credible research strategies include techniques for helping the investigator become more aware of and deal with selective perception, personal perception, personal biases, and theoretical predispositions. Qualitative inquiry, because the human being is the instrument of data collection, requires that the investigator carefully reflect on, deal with, and report potential sources of bias and error.

(Patton, 2002: 51)

Another potential method of reducing selectivity is to make use of audio and video recording technologies. Recording technologies were not used within the language course apart from within the SoundCloud tool. The use of such equipment can potentially impact negatively on the research, causing reactivity for example on the part of the participants (Gray, 2013) and indeed the participants' observable behaviour. It can impact negatively on the researcher's data collection as well especially when it is not necessary.

[The researcher] should avoid any "technical presence" in the situation of the data collection that is not absolutely necessary for their theoretical interests.

(Flick, 2009: 298)

As mentioned, technology was used at the end of each class in order to capture the subject matter covered on the classroom's backboard. A phone camera was used to capture these images. Doing this helped the teacher to plan subsequent classes.

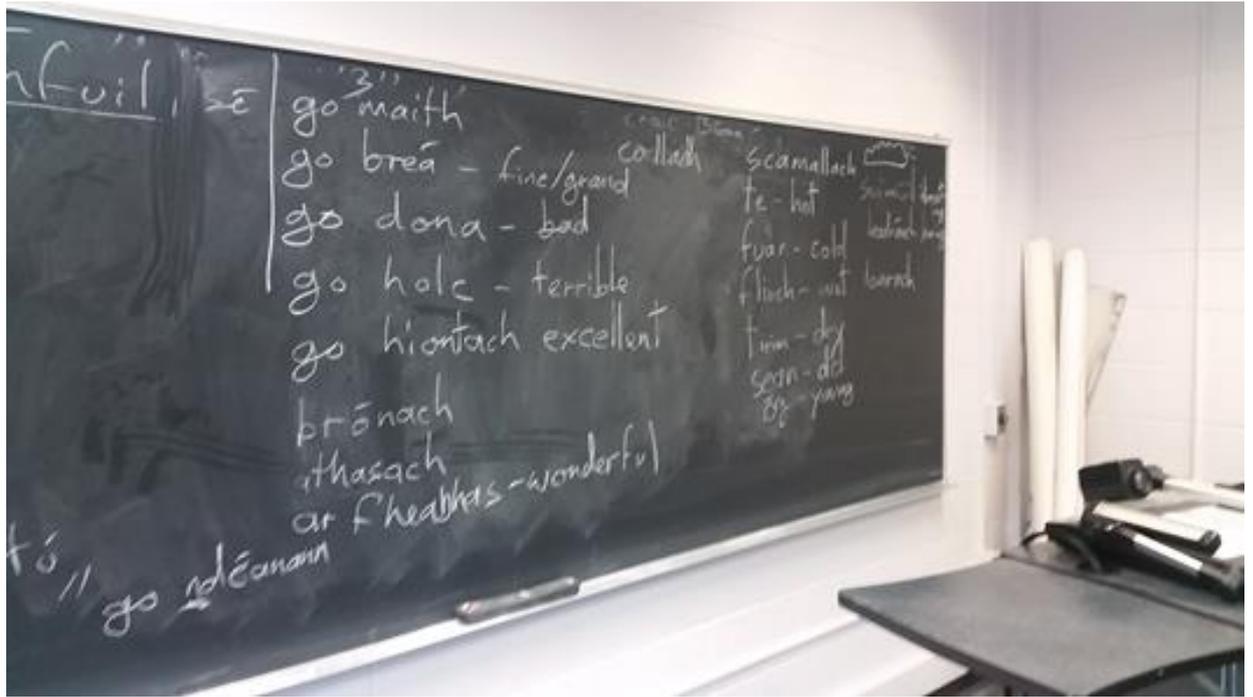


Figure 4.3 Blackboard at the end of face-to-face class.

Another view of the language classroom that constituted the physical learning environment for the course can be seen in Figure 4.4 which shows the back of the classroom.⁵

⁵ Importantly it must be highlighted by that the layout of the physical classroom was dictated by the rules of the host institution. Rooms were to be always left according to the classrooms seating plan located on the wall of the classroom. The course teacher arranged seating ahead of the class to resemble a horseshoe shape. During the class students were permitted to reconfigure the seating arrangements further to their requirements. It must be noted that the presence of blackboards on both walls in the classroom greatly facilitated group activities (see Figure 4.4).



Figure 4.4 Classroom for main study

As evidenced in other activity theory studies, the use of several data collection methods is necessary in furtherance of satisfying a CHAT-study's methodological and theoretical requirements (Blin, 2005, Westberry, 2009). The next section describes the main research instrument used in the study, the student reflective sheets.

4.5.5 Student reflective sheets

The student reflective sheet was used in the main study to gain insight into the actions taken by the research participants during the BLL course. Additionally, the sheet was used to capture the different elements that constituted the course's activity system from the perspective of the participants. The sheet was administered on a weekly basis and served to form a sort of structured journal for the learners. The template of the sheet was adapted from Blin's (2005: 117) original individual reporting sheet. The sheet was made available to students through the VLE (SpeakApps) and via email. Participants were also reminded to complete the sheet on a weekly

basis. This usually coincided with the end of each week in the course. An example of the reflective sheet can be seen below in Figure 4.5. Elements of the theoretical framework have been matched to each section of the reflective sheet to illustrate the orientation of the question.

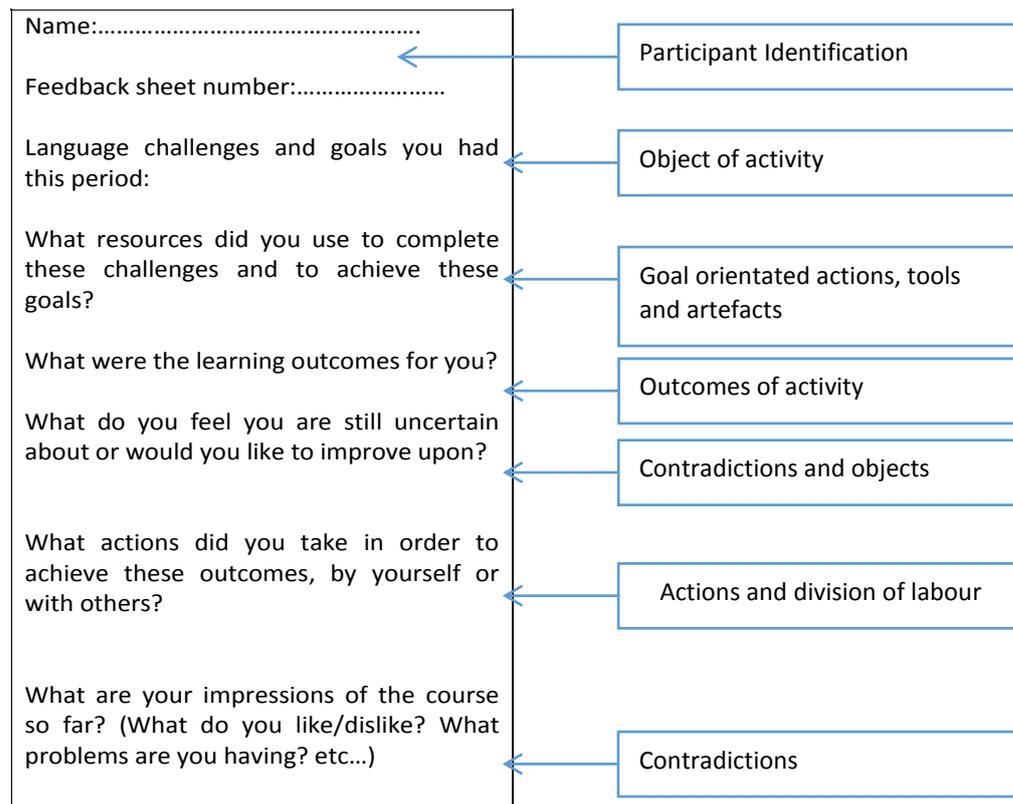


Figure 4.5 Student reflective sheet template

The student reflective sheet is a solicited document (Flick, 2009) and was produced over a specified period of time (the BLL course). The document fulfilled the third methodological requirement stated above, that is the need to account for temporality while collecting data, as it collected data at regular intervals in the study. Documents such as this often offer insights into the phenomenon under study and to examine them is usually worth a researcher’s time (Merriam, 2002).

The motivation to use these reflective sheets was, as mentioned, to uncover the different perspectives of the activity system among the participants. 'Documents represent a specific version of realities constructed for specific purposes' (Flick, 2009: 259). Reflective sheets offer an ideal way of gaining insight into the opinions, feelings and activities of learners (Blin, 2005). Yamagata-Lynch (2010: 29) states that:

...investigators need to vicariously experience participants' observable and mental activities...

Structuring the reflective sheet according to CHAT facilitated comparison with the CHAT-structured observation sheet. This in turn facilitated the task of triangulation as they allowed the author to contrast the learners' perspectives with his observations. Comparing data captured by these research instruments helped to more accurately model the activity system and to identify the participants' actions, objectives and outcomes over the duration of the study. This in turn facilitated the identification of contradictions within the course. The model of the activity system is discussed in more detail in Chapter 5.

One limitation of using documents such as the reflective sheet is that they are ultimately reliant on the participant taking the time to complete and return them. Indeed, this was a methodological challenge observed by the researcher in the course of the study and it is discussed further in Chapters 5 and 6. In order to mediate this drawback associated with documents of this type, the author along with his supervisory panel decided that a group interview at the conclusion of the study would provide an opportunity to mitigate against this drawback. The group interview and motivations for using this qualitative technique are described in the following section.

4.5.6 Group interview

At the conclusion of the study the researcher conducted a semi-structured group interview with the research participants. Gill et al. (2008) point out that group interviews are one of the most widely used data collection methods in qualitative research. According to Cheng (2007), group interviews can be used to support the investigation of various phenomena within educational

contexts. Gibbs (1997:1) points out that focus groups are useful for 'when one wants to explore the degree of consensus on a given topic.' Vaughn et al. (1996) proposes four assumptions about people that support the use of group interviews in qualitative research:

1. People are valuable sources of information, particularly about themselves. This assumption, of course, is also inherent within all self-reported measures.
2. People are capable of reporting about themselves and are articulate enough to put opinions about their feelings and perceptions into words.
3. The best procedure for obtaining people's feelings and opinions is through a structured group conversation in which information is solicited by the moderator.
4. There are effects of group dynamics that enhance the likelihood that people will speak frankly about a subject, and these cannot occur through individual or small-group interviews. Related to this assumption is that the information obtained from a focus group interview is genuine information about what each person feels rather than a group mind in which people conform to what others believe.

(ibid: 7)

As can be seen in Vaughn et al.'s (1996) third point, the mediator plays an important role in the group interview. The role of a researcher during a group interview is to formally direct the talking points of the participants (Patton, 2002, Flick, 2009, Bickman and Rog, 2009). This was the role adopted by the author in this study. Prior to the group interview the semi-structured interview questions and interview procedures based on recommendations from Bickman and Rog (2009) were finalised.

A typical interview guide for a 90-minute discussion ideally includes no more than 10-20 questions. Generally, questions of a more general nature are raised first, and more specific issues are raised later in the guide. This assures that background information, context and broader issues are discussed before the group focuses on very specific issues. The use of very specific questions early in a discussion often results in a premature narrowing of the focus of the group and reduces the richness of the information that is obtained.

(ibid: 600)

The interview questions were also influenced by observations of participants over the duration of the main study.

Lunt and Livingstone (1996) highlight that one of the main methodological issues surrounding the use of group interviews as a research method relates to the power of the researcher and the

exploitation or empowerment of the researched. Power dynamics between individuals in the group being interviewed and the researcher may have a negative influence on a group interactions during the interview resulting in incomplete data (Longhurst, 2003). Longhurst (ibid: 152) states that researchers need to think carefully about the procedures that they implement in order to guide the groups discussion and also to ensure that members of the group adhere to normal social etiquette. The procedures implemented in this study are available in Section 4.5.7.

According to Schensul (1999: 52) group interviews offer qualitative researchers many advantages in that they can:

- Generate a considerable quantity of data in a relatively short period of time from a large number of people than would be possible by interviewing key informants only.
- Allow the researcher to record and analyse group members' reactions to ideas and to each other.
- Produce data and insights that would be less accessible without the interaction found in a group.
- Elicit useful "natural language discourse" that allows the researcher to learn idiomatic expressions, common terminology, and communication patterns in the community in a rapid and concise manner.

Additionally, Flick (2009: 196) states that;

...the main advantages of group interviews are that they are low cost and rich in data, that they stimulate respondents and support them in remembering events and that they can lead beyond the answers of the single interviewee.

In this study, the interview was useful in gaining a deeper understanding of the participants' perspectives of different elements within the course's activity system.

From an activity theory perspective, interviews help identify information about the subject, existing or lacking tools, and the subjects' perspectives about the object. Participants may also share information regarding documents and artifacts that relate to existing rules and division of labor. It is likely that participants will be able to provide information about the communities in which their activities are situated.

(Yamagata-Lynch, 2010: 70-71)

The interview was also used to uncover the negative and positive outcomes of the participants' learning activity.

The interview questions can be seen in Appendix J. These questions were influenced by the author's experience conducting the interview in the pilot study as well as from feedback and discussion with the author's supervisory panel. The transcripts of the interview can be seen in Appendix K. In order to speed up the transcription process an assistant was recruited for this specific task. The assistant was an undergraduate with Fiontar & Scoil na Gaeilge. The transcripts were reviewed by the author and checked for accuracy against the original recordings. The procedures implemented during the group interview are discussed in the next section.

4.5.7 Procedures implemented during group interview for main study

The group interview was recorded using a digital audio recorder and then transcribed. It was anticipated that a large amount of information would be generated by the participants' discussion. The role of the researcher as the interviewer was to moderate the participation of the interview group members (Bickman and Rog, 2009). This interviewing approach allows researchers to explore interview questions while allowing research participants to expand on issues that concerned them (Patton, 2002). The exact procedures followed during the group interview are described next.

The procedures followed in the interview, with explanations where necessary, are enumerated and described here;

1. Digital voice recorder to be positioned in centre of room. Due to the layout of the room where the interview took place for the pilot study the voice recorder was more closely positioned to one half of the class. This made certain students louder than others and impacted on the audio recording making it more difficult to decipher what certain students said.
2. Explain the purpose of the group interview. In the pilot study some students seemed to misunderstand the reason why the group interview was being held and therefore what type of information or type of discussion was required from them. A majority of the participants' discussion in this interview was on how to improve a particular technology

which was not the focus of this study. In order to prevent against this occurring at the end of the main study, the author described the purpose to the participants as an opportunity to express their feelings, opinions in relation to the difficulties they experienced specifically in relation to the language course.

3. Clearly explain the role of the interviewer during the focus group: Several times during the pilot study interview students digressed and began to deviate from the topic of the question that was asked of them. This extended the duration of the interview and subsequently complicated the transcription process. Students were reminded to address the question that was asked of them. They were also told that the author would interrupt them if he felt that the student was digressing and that they should not be deterred by this. This step is informed by recommendation from (Bickman and Rog, 2009).
4. Explain the etiquette expected during the group: At certain times during the pilot study interview, students talked over one another or engaged in cross talk with other students. This negatively impacted on the audio and the transcription process. In order to prevent this happening during the main study the researcher reminded participants to be patient and wait for other students to finish their statements. The author also explained that everyone would be afforded the opportunity to express their opinions according to recommendations from Patton (2002), Longhurst (2003) and Lunt and Livingstone (1996).
5. During the interview the author will endeavour to encourage everyone present to speak and voice their opinion by creating an open and relaxed atmosphere in line with recommendations from Gibbs (1997).

As the discussion of the research instruments and techniques above show, it was intended that the students' actions from week-to-week in both online and in the face-to-face classes were documented. This was done in order to identify different contradictions that emerged within the activity system of the BL course at different points in the study. Additionally, the inclusion of this temporal perspective in the data collection instruments enabled the researcher to identify

students' objects in transition. With regard to the location of the interview site the author chose to conduct the interview in the same classroom where the face to face class was held in order to ensure that the participants felt comfortable and that the location was convenient to the participants in line with group interview recommendations from Dilshad and latif (2013). The unit of analysis for this study is defined next.

4.6 Defining unit of analysis and delineating boundaries

Blin (2005: 83) states that in order to model an activity system under study one must define the unit of analysis and locate it within its overall cultural and historical context before any subsequent methodological step or procedure can be implemented. As mentioned in Section 4.3 the specific unit of analysis for this study is the weekly sub-activity systems of the ab initio BLL course over a six-week period. Barab et al. (2001) affirm that an 'activity system can be an entire course, a particular class or an isolated event' all of which are suitable units of analysis in an activity theory study.

The study's unit of analysis can be represented at the meso level within in the overall activity system of the BLL course. This representation can be seen in Figure 4.6. Studying the student activities at the meso level over the duration of a course can reveal how learning practices related to tools and signs can transform a community as they begin to embody certain practices (Rolf, 1996).

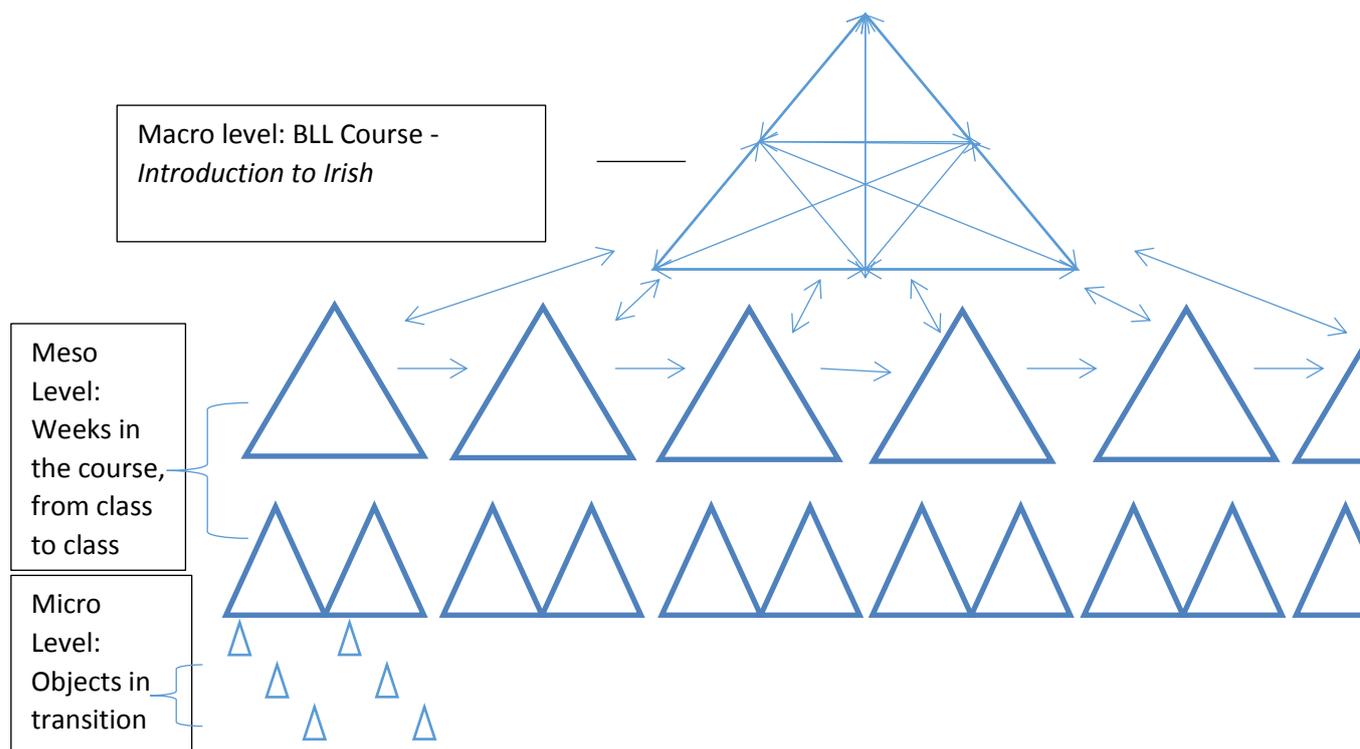


Figure 4.6 Temporal perspective of Macro, meso and micro levels of the course

The next section delineates the boundaries of the study in order to better define the study's terminology and to more precisely contextualise the description of the activity system in the mind of the reader. Additionally, the definition of the terms presented here impacted on the application of the coding scheme in the data analysis phase of the study as described in Section 4.7.

4.6.1 Delineating the study's boundaries

As CHAT can be used to study a variety of sociological and cultural phenomenon it is necessary to define components of the activity system under investigation in this study. This is done to delineate the boundaries of this study to the reader. An activity system has six core components, each of which holds cultural and historical dimensions (Foot, 2014). As has been explained in Chapter 3, CHAT functions as a framework to understand human activity and to identify tensions and contradictions within human activity systems such as a language course. It is impossible to know what tensions and contradictions will emerge in any activity system before an activity has unfolded, yet it is possible to identify what components will form part of that system. The six components that comprise the language course's activity system are listed now for clarity.

4.6.2 Object

All human activity is directed towards an *object* (Kaptelinin, 2015: 17). Objects exist on a continual horizon as they are transformed by a subject's actions and their resulting learning outcomes (Engeström, 1999, Engeström, 1987). Theoretically:

The object of activity appears primarily in its independent existence, as subjugating and transforming the subject's activity, and secondarily as the object's image or a product of the psychic reflection of the object's properties, which can only be realized as a result of the subject's activity.

(Engeström, 1999: 349)

Drawing on this definition and as determined by the study's CHAT-based coding scheme, the term *object* in this study refers to (1) language learning objectives (such as learning basic conversational phrases or the pronunciation of specific vocabulary), (2) metacognitive strategies and transferable skills or (3) specifically stated or defined goals and skills. The CHAT-based coding scheme that was employed in this study is discussed in Section 4.7. This scheme impacts the definition of the object provided here.

4.6.3 Subject and community learners

Yamagata-Lynch (2010: 143) defines the *subject* within an activity system as 'the individual or groups of individuals in an activity.' In general terms of this study the subject is considered to be the students participating in the BLL course. The teacher is considered to be a member of the community and is also a subject within the activity system.

Foot (2014: 6) defines the community within a common activity system to consist of the people who share with the subject an interest in and involvement with the same object. According to Engeström (1999: 32), the CHAT model of an activity system highlights the importance of community and community relations and shows them to be an integral part of an activity system.

The term *community* in this study will refer to the class as a whole as well as other individuals the participants interacted with that had some relationship to the language course's activity system. An example of this would be a family member or a friend the student engaged with using or talking

about the target language. Specifically, the community in this study consisted of the informed and consenting research participants who volunteered to take part in the language course and the course's teacher (See Sections 4.9, Appendices G and H for further information in relation to ethical procedures followed in the study and the recruitment of participants).

4.6.4 Tools and artefacts

Tools and artefacts mediate the actions of subjects towards their objects. Foot (2014: 5) states that:

Tools can be either material or conceptual. Language, protocols, scientific methods and models, and other forms of cultural artifacts are just as much tools as are hammers, computers, and phones.

We can see Foot's (ibid) definition of tools includes artefacts also. For the purposes of data analysis, artefacts are defined as static objects such as textbooks and audio recordings in the coding scheme. These artefacts are a result of another's labour and therefore also embed certain historical and cultural dimensions. Artefacts are static. That is, they are produced and remain unchanged. Tools on the other hand are more dynamic. Tools are defined as material and conceptual resources that help the learner explore the target language such as an online language learning platform or metacognitive strategies. Roth and Lee (2007: 199) point out that:

Resources [tools or artefacts] are available for use in action, but they do not function deterministically, much like a wild-water canoeist's plans guide his or her actions rather than determine his or her actual descent.

Based on this understanding, certain tools may be classified as artefacts and artefacts as tools depending on their use by the student. The blend of tools and artefacts used in this study is presented in Section 5.3.

4.6.5 Outcomes

Outcomes are a consequence of object-orientated activity (Engeström, 1987). In the attainment of the objects the activity system is transformed by various outcomes for the individual subjects

(Yamagata-Lynch, 2003: 103). These outcomes were perceived to be either desirable (positive) or undesirable (negative) by the subjects. Regardless, outcomes influence future activity and future objects in more advanced activity systems. The term *outcome* in this study refers to either the positive or negative developments in subjects' metacognitive strategies and transferable skills. Furthermore, the term also relates to subjects' language learning outcomes.

4.6.6 Actions

Many actions can be performed in a language course. Listening, speaking, repeating, writing, etc., are among the various actions that constitute language learning activity. The term *action* in this study will relate to actions performed as a part of the object-orientated activity related to the Irish language course. The actions may include revising vocabulary, listening to the target language or using an app to check a word's pronunciation. Actions can be taken independently by the student (such as with certain CALL tools) or as a part of their community (for example discussing a grammar rule, reflecting with others or participating in a communicative exercise).

4.6.7 Rules and division of labour

Engeström (1987: 149) states that:

Human activity always takes place within a community governed by a certain division of labour and by certain rules.

Rules within an activity system can be both formal and informal (Yamagata-Lynch, 2010). Rules are a necessary component of an activity system as they regulate the subjects' actions towards their goal, and their interaction with other participants within the activity system (Foot, 2014). In terms of this study, rules are the explicit and implicit rules that exist in the learning environment, such as attending class (explicit) or being respectful to other members of the community (implicit). Rules have a particular relationship with the concept of the *division of labour*. Rules govern the division of labour to a degree. Mwanza (2000: 4) holds the view that;

rules may either be explicit, or implicit, for example, cultural norms that are in place within a particular community. The division of labour component refers to the allocation of responsibilities and variations in job roles of the subjects as they carry out activity in the community.

Within this study the division of labour refers to tasks, assignments and group exercises that will form part of the classroom activity as well as the students' independent study of or interaction with the target language.

The discussion of these terms above facilitated the author in defining the boundaries of this study. By delineating the study's boundaries, triangulation and analysis were facilitated. Triangulation, coding and data analysis are discussed in more detail in Section 4.7.

4.7 Data analysis

Having described the data collection methods used in this study in Section 4.5, and the boundaries of this study in Section 4.6, it is now necessary to discuss methods to bring this data together for analysis and interpretation. Data analysis is the most challenging element of qualitative research especially when data has been collected from various sources and in different forms. Compared to numbers, words are unwieldy items but they yield deeper insights into the meanings and essential characteristics of a research topic (Miles and Huberman, 1994).

This section considers coding and triangulation as methods of bringing together multiple qualitative data sources for the purpose of analysis. The type of triangulation employed in this study is that of data and method triangulation. The comparison of different data sources was facilitated by the use of Blin's (2005) CHAT-based coding scheme. This scheme is discussed in this section as well as the steps that were taken during the coding and analysis phase of the research design, i.e. Phase 4 (See Section 4.4).

4.7.1 Coding and triangulation

Method triangulation was used to check and establish the validity of the research methods used in this study by analysing the research question from multiple perspectives. The purpose of

triangulation is not to uncover consistencies in the data but rather to uncover the divergent experiences of the research participants. Identifying inconsistencies between different data sources helps qualitative researchers to uncover deeper meanings contained in data which in turn contributes to the validity of a study's findings (Patton, 2002).

Triangulation permits researchers to bring together different research instruments in a way that mediates their weaknesses while combining their strengths (Mason, 2002). This can in turn uncover the multidimensional nature of reality within the context of a study as different instruments record different types of data (Miles and Huberman, 1994). Patton (2002) states that the goal of triangulation is not to arrive at consistency across data sources or approaches but rather to uncover inconsistencies. Inconsistencies provide researchers with opportunities to uncover deeper meanings within data. Finally, Flick (2009: 130) suggests that triangulation of data from a small group can also contribute to theoretical generalisation.

Importantly for this study, the use of multiple data collection instruments contributes to the descriptiveness of findings within small groups as opposed to using one type of data collection instrument in the study of a large group. Additionally, the use of triangulation has proven to be an effective method of modelling activity systems in CHAT studies (Mwanza, 2002, Blin, 2005, Barab et al., 2002, Engeström, 1993, Blin and Appel, 2011). Figure 4.7 below illustrates how, through the use of different data collection methods, CHAT researchers are able to model an activity system for analysis in order to identify contradictions that emerged within and between different instruments:

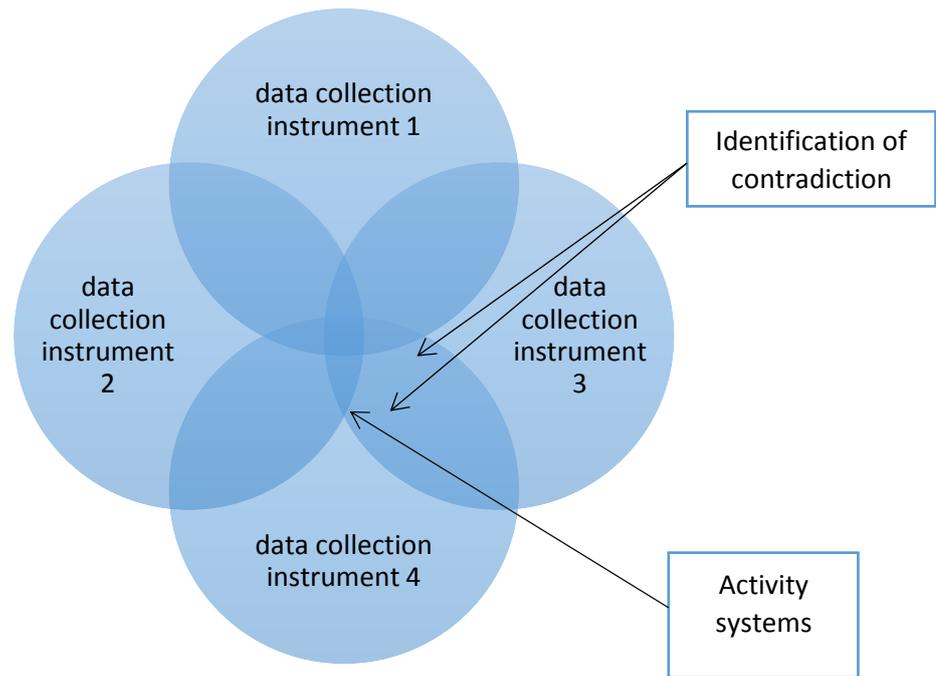


Figure 4.7 Representation of interacting data collection instruments

It is important to mention that the process of triangulation does not only relate to the comparison of data sources and methods but can also take the form of investigator triangulation and theory triangulation (Patton, 2002, Lincoln and Guba, 1985). Investigator triangulation was employed to a degree by meeting with a prominent CHAT theorist, as explained in Section 4.4 and by meeting with the author’s supervisory panel. Theory triangulation was not used as the research design and coding scheme for this study is guided by one single theoretical framework: CHAT.

Triangulation is a time consuming process that can be facilitated by the use of codes (Bryman, 2004, Miles and Huberman, 1994). Codes enable researchers to break down qualitative data in order to identify themes, relationships and patterns (Gray, 2013). This in turn allows researchers to retrieve sections of data more efficiently for comparison with other data and further contemplation (Basit, 2003).

Generating codes is a challenging process. Two general methods of code creation exist: The first is interpretivist and is based on grounded theory.

Grounded theory is meant to “build theory rather than test theory.” It strives to “provide researchers with analytical tools for handling masses of raw data.” It seeks

to help qualitative analysts “consider alternative meaning of a phenomenon.” It emphasizes being “systematic and creative simultaneously.” Finally, it elucidates “the concepts that are the building blocks of the theory.”

(Patton, 2002: 127)

The other method of code creation begins with a start list of codes (Gray, 2013, Miles and Huberman, 1994, Basit, 2003). This start list can come from;

...the conceptual framework, list of research questions, hypotheses, problem areas, and/or key variables that the researcher brings to the study.

(Miles and Huberman, 1994: 58)

This method, although not as flexible as the grounded theory, still allows researchers to generate codes in vivo within the terminology of the study’s conceptual framework. Additionally, using a conceptual framework and research question to guide the code generation process offers a degree of protection against data overload (Miles and Huberman, 1994: 55).

As mentioned, the researcher adopted the coding scheme developed by Blin (2005: 123-124) in her CHAT study as his starting list of codes. As this study is based on the conceptual framework of CHAT it was necessary to use a CHAT-based coding scheme. Blin created three groups of codes for her pre-determined activity theoretical categories: ‘individual or group actions’, ‘components of the activity system’ and ‘emerging contradictions’ (2005: 122). Blin’s (ibid) list of codes can be seen in Table 4.2 below.

Table 4.2 Blin's CHAT-Based coding scheme

Group	Individual or group actions	Component of Activity System	Contradictions
Codes	AC1: Action description AC2: Context of action	SU1: Subject CO1: Community OB1: Object/ Goals – Language OB2: Object/ Goals – Strategies AR1: Artefacts used by the learner (books, course texts, handouts, technologies) AR2: Artefacts created by the learner (Video blogs, flashcards, online profiles, etc.) TO1: Tools – Cognitive and metacognitive TO2: Tools –Technologies (hardware such as phone, laptop, desktop computers and types, Android, Apple) DL1: Division of labour (Horizontal) DL2: Division of labour (Vertical) RU1: Rules (Implicit and explicit) OU1: Outcomes – Language OU2: Outcomes – Strategies and skills	Level 1 (L1): Internal contradiction within element of activity system Level 2 (L2): Internal contradiction between elements of activity system Level 3 (L3): External contradictions between activity system and more advanced activity system Level 4 (L4): External contradictions between activity system and neighbouring activity system Level 5 (L5): Reflection on learning outcomes

The list of codes in Table 4.2 enabled the identification of the various elements within the activity systems of the course and the relationship or contradictions that emerged between these elements (both positive and negative). The codes also help to identify the actions of subjects and the context for those actions.

In this study the codes were applied to the data captured with the student reflective sheet only, as was the case in Blin's (2005) study. Coded segments were then tagged with descriptors and organised into groups for later analysis. During this step the consistency of coded segments was checked and codes were reassigned where necessary. The author then used the tagged coded segments to construct a model of the study's activity system from the perspective of the participants. During this process data from the coded segments was compared with the observation notes and the results of the group interview. The student reflective sheets guided and directed the investigation and use of other research instruments. The segments helped to identify contradictions within and between elements of the activity system as well as participants' reflections on learning outcomes and artefact use. The next section explores the ethical considerations surrounding the study and the practical issues related to gaining ethical approval to pursue this research.

4.8 Participants, ethical considerations and recruitment

As this study involved human research participants, ethical approval was needed. The overall project was subject to three different ethical approval processes. The researcher submitted ethical applications for research involving human research participants to his home institution and to the two host institutions where the pilot study and the main study were conducted in the United States. Each ethical approval process was different. This was due to the fact that different conventions and procedures existed at the three universities where the research took place. Furthermore, differing legal requirements are in place in the different jurisdictions where research was carried out. This required the completion of web-based training courses relating to the protection of human research participants. See Appendix G for all documents related to ethical applications for the study.

In general, the information required by the different processes was the same and merely had to be presented in different ways. The main concern of each application related to the following:

1. Recruitment of research participants.
2. Informing participants of the potential risks posed to them by taking part in this research.
3. Informing participants that they could withdraw from the study at any time.
4. Gaining consent of the research participants.
5. Protecting participant anonymity and data.

As the research in this study did not present any unforeseen risks to the research participants that would not be a part of a normal language course the three applications were subject to expedited review. A copy of the approval letters from Dublin City University's Research Ethics Committee, as well as the Institutional Review Boards of the University of Wisconsin, Milwaukee and Carnegie Mellon University, Pittsburgh can be seen in Appendix G. A copy of the certificate of completion of the online ethics course that was necessary to undertake research at the US

institutions is also available in Appendix G. The recruitment email and the participant consent form for the study can be seen in Appendix L. The participants were recruited from the general population of Carnegie Mellon University in Pittsburgh.

Between eight and 20 participants were sought for the study. The literature states that this number is ideal for foreign language classroom instruction (Blyth, 2001, Yi, 2008, Association of Departments of Foreign Languages, 2001, Locastro, 1989). With 20 participants the class can still function efficiently and allows for worthwhile teacher-student and student-student interaction. Eight was identified as the minimum number to conduct the study as this would be the smallest class size feasible to run the language course.

The ethical applications also addressed issues surrounding data protection and storage. Data collected from the participants during the study was stored securely on the author's laptop using password protection and encryption. Physical forms and other notes were locked securely in an office provided to the author on CMU's campus.⁶ All data was anonymised using a list of pseudonyms (for example; Learner 1, Learner 2). Data was backed up using a password protected external hard-drive and cloud storage account.

Prior to the conclusion of this chapter the author will outline his biases as a way of maintaining the study's credibility (Patton, 1999).

4.9 Researcher perspective and opinions

In the interest of establishing the credibility of this study, the author acknowledges the importance of recognising his opinions and perspectives in relation to learning and technology. Identifying the researcher's perspectives and opinions adds to the descriptiveness of a study's audit trail and is one method of establishing a study's credibility (Patton, 1999). This section functions as a type of *researcher identity memo* for the author in order to explore his

⁶ In the case of the pilot study, files were stored securely in the faculty office where the author was based.

assumptions regarding technology in education. Maxwell (2012) asserts this is one method of incorporating a researcher's experience into a study's research design.

The author is of the opinion that language learners can benefit greatly in their studies from the use of technology and that appropriately designed exercises using such technologies blended into a language curriculum can potentially develop learner's language skills. This has been shown to be the case in other studies (Lin, 2015a, Lin, 2015b, Dugartsyrenova and Sardegna, 2016). This opinion or 'bias' is also based on the acquired knowledge and experience of the researcher from working as a language teacher and CALL course developer. This opinion is also supported by an understanding of what technology in education is in its broadest sense. Even the most basic technologies such as chalk and the blackboard improve education. These technologies which were introduced two centuries ago into classrooms and lecture halls (Ambrose, 1966) and are now practically ubiquitous in most western classrooms today in some form. These forms may include a smart whiteboard for example. The smart whiteboard offers teachers more affordances than traditional boards but their position and role in the classroom remains largely the same.

A similar comparison can be drawn between writing tablets and electronic tables. The tablet form factor for educational purposes is nothing new, having been used in India for writing in education since the 11th century (Al-Biruni, 1887: 182). The form of computer tables used today remains much the same as the Indian writing tablets only that they afford more options to learners through apps and access to the internet. Regardless of how complex it is; technology has been seen to add to the educational experience of learners. This bias is therefore rooted in the observable trend of technology enhancing education.

Corbin and Strauss (2008: 32) emphatically state that within qualitative research objectivity is a myth. Patton (2002: 50) supports this position and states that:

To claim the mantle of “objectivity” in the postmodern age is to expose oneself as embarrassingly naïve. The ideals of absolute objectivity and value free science are impossible to attain in practice and are of questionable desirability in the first place since they ignore the intrinsically social nature and human purpose.

In general, researchers, as evidenced by their decision to pursue their chosen occupations in whatever academic discipline, hold certain preconceptions that have been developed over an extended period of contact with their field of study. This in turn affects their activity in pursuit of their research goals. Regarding the study of human subjects, Walsham (1995: 376) states that:

Value-free data cannot be obtained, since the enquirer uses his or her preconceptions in order to guide the process of enquiry, and furthermore the researcher interacts with the human subjects of the enquiry, changing the perceptions of both parties.

Additionally, Yin (2003: 71-72) identifies that a researcher’s prior knowledge, background and experience is necessary in order to interpret qualitative data successfully.

One strategy of monitoring these biases or subjectivities is for the researcher to reflect on and describe the decisions made during the research process. This strategy is known as research reflexivity (Merriam, 2002).

The disclosure of researcher beliefs, assumptions, and expectations, and the use of interpretative commentary describing changes of perspective in the researcher’s point of view are valuable strategies.

(Westberry, 2009)

This strategy has been employed in this study by the researcher by, (1) providing justification of the data collection methods in this chapter, (2) using multiple data collection instruments to facilitate triangulation, (3) testing the data collection instruments in the field prior to the main study, (4) providing justification for decisions taken during the study in the development of the research instruments and techniques, (5) conversing with his supervisory panel in order to bring to light hidden biases, and (6) by stating the starting position of the researcher, as above.

Departing from the researcher's stated position would be dishonest and is harmful to research (Maxwell, 2013).

Researchers frequently make a sharp separation between their research and the rest of their lives. This practice is harmful to good research in two main ways. First, it creates the illusion that research takes place in a sterile, "objective" environment, subject only to rationale and impersonal motives and decisions. This obscures the actual motives, assumptions and agendas that researchers have, and leads them to ignore the influence of these on their research process and conclusion. It also leads researchers to hide actual motives and practices when they don't conform to this ideal, feeling that only they are failing to live up to the goal of scientific neutrality and disinterest. Second, this separation cuts the researcher off from a major source of insights, questions and practical guidance in conducting research.

(ibid: 24)

Lastly, the understanding that interaction with participants influences both parties' perceptions is important (Patton, 2002: 48-49). It underscores the need to study participants from a historical perspective in order to understand changes in their perception. This can most readily be accomplished by qualitative inquiry through the use of multiple methods (Mason, 2002).

4.10 Method for empirical analysis

Using the data gathered during *Introduction to Irish* the researcher created a corpus of data in order to construct the activity system of the course and to identify contradictions within the course's activity system. Table 4.3 below illustrates the size of the corpus and the amount of words contained in all files.

Table 4.3 Description of corpus

Number of Files	Number of words
Interview transcripts (3 files)	12,890
Observation sheets (12 files)	22,033
Student reflective sheets (26 files)	7,995
Total number of files: 42	Total number of words: 42,918

The data for this corpus were provided by the student reflective sheets, the CHAT-structured observation sheets and transcripts of interviews as described in Chapter 4. Similar to work conducted by Blin (2005) and Murray (1999) on learner autonomy, the specific development of the individual learner's language skills was not the focus of this study. Following the procedures laid out by Blin (2005) in her study, the researcher aimed to identify both the positive and negative contradictions that arose in this study. Furthermore, the researcher sought to identify how these contradictions impacted on the actions of the learners, the actions of the teacher and the functioning of the course in general.

4.10.1 Description of the selected data

As mentioned in Section 4.4, the data collected during the study was stored and organised in an electronic corpus for later analysis in Phase 4. This was done in order to construct a representational model of the course's activity system and to identify the actions of the participants during the language course.

Uncovering and documenting learner activity in both the online and physical spaces within the language course's weekly sub-activity systems was a methodologically challenging task. Overcoming this challenge necessitated the use of techniques and research instruments designed with specific data collection roles and contexts in mind, as described in Section 4.5. These approaches to data

collection functioned help to capture the different perspectives of the participants within the BL course over the duration of the study. These data sets provided information across place, multiple timescales and also provided the researcher with individual student perspectives. Blin (2005: 116) states that the analysis and interpretation of such data reveals 'the activities' inner contradictions'.

The data that was produced over the duration of the study by the learners were the student reflective sheets, the learner analytics generated by the CALL tools (these supported the researcher's observational work) and interviews. The researcher also produced data in the form of observational field notes, as already mentioned. Yamagata-Lynch (2010) asserts that bringing together different types of data-sets from different research instruments through data triangulation is a well-tested strategy for maintaining a qualitative study's trustworthiness. Through the use of method triangulation, the researcher seeks to construct a full image of the course's interaction activity systems and their inner systemic relations, or misfits.

4.10.2 Analysis of corpus

During Blin's (2005) study of learner autonomy she conducted two separate empirical analyses of her language learning modules. The first empirical analysis 'aimed to describe the complexity of a language learning activity designed to promote and develop learner independence' (Blin, 2005: 115). Her second empirical analysis sought to identify the underlying contradictions that constrained or afforded the development of learner autonomy in the context of activities designed to promote learner interdependence. The data analysis procedure followed by the researcher in this study was heavily influenced by Blin's (2005) approach to contradiction identification in her second empirical analysis. This study's approach to analysis diverges from Blin's (ibid) with respect to the types of data sets that were selected and the focus of the coding in order to pursue this study's research question. The selected data will be described next along with the practical methodological problems that emerged during the study. As mentioned in Chapter 4, the researcher used the coded data from the student reflective sheets to guide his triangulation efforts with other research instruments.

4.10.3 Student reflective sheets

Over the course of the six-week study, the participants were asked to complete a structured reflective sheet for the first five weeks of the course. The design and layout of these sheets can be seen in Section 4.10.4. All of the student reflective sheets received over the course of the study are available in Appendix Q. As ten learners had agreed to participate in the study at the beginning, the researcher expected to receive 50 individual sheets. Unfortunately, there were a number of issues relating to the successful implementation of this research instrument and the total number of sheets that were returned to the researcher. Some participants were unable to complete the entire course due to other commitments, while another research participant joined the course half way through. This participant did not return any completed reflective sheets over the duration he participated in the course.

The number of reflective sheets that were returned fell dramatically during the final weeks of the study. The low number of completed reflective sheets in general is possibly as a result of low attendance of the face-to-face classes over later week due to the learners' other academic/professional responsibilities (Midterm assignments, travel commitments and funding deadlines were cited as excuses by the participants). This is noted in the researcher's observation (see Appendix Q). In total 26 reflective sheets were returned to the researcher by the end of the study. A breakdown of the number of reflective sheets per week can be seen in Table 5.4.

Table 5.4 - Reflective sheets per week.

Week	1	2	3	4	5	
Number of reflective sheets:	7	9	7	1	2	Total number of reflective sheets received: 26

All 26 of these reflective sheets were included in the study's corpus for encoding. As mentioned in Section 4.5, in order to supplement these reflective sheets a group interview was conducted. At the end of the final week of the study, all learners who had participated in the study were asked to attend a group interview to explore their experiences and opinions of the course.

As with the reflective sheets the implementation of the group interview was not without difficulties. Of the eleven people who participated in the course at some stage only seven people attended the focus group interview. Two participants informed the researcher ahead of time that they would be unable to attend the group interview due to other commitments. In order to avoid the loss of these learners sharing their experiences of the course, separate one-on-one interviews were organised at other times. The procedures followed in these interviews were the same as those followed for the main interview. The one-on-one interviews also provided an opportunity for the researcher to refine his questions for the main group interview. All of the interviews that were conducted were transcribed and de-identified.

4.10.4 Observation sheets

The researcher's observation sheets provided an account of the course's weekly activity systems both in the online and physical space from the perspective of the course teacher. The data that was collected using the observation sheets served to contextualise the different actions that took place in the course. The CHAT-based structure of the observation sheets facilitated comparison with the coded and tagged segments from the reflective sheets. The exploration of the data recorded in the observation sheets was directed by these coded and tagged segments. The observation sheets also provided the researcher with a place to document difficulties experienced during different parts of the course, especially difficulties between technologies blended with a traditional classroom. These sheets were used to help the identification of contradictions in the course and also to provide context for the information contained within the learner reflective sheets.

The researcher observations also helped to incorporate the quantitative data, collected through the online tools, into the qualitative narrative of the study. Supplementing the qualitative data in this way helped to enrich the depth of the researcher's observations and additionally facilitated the researcher in bridging the actions of the learners in class (and the difficulties that arose from this) with the actions of the learners online. Additionally, the observation sheets served to record the student constructed

artefacts. Finally, the observations sheets also served to document the weekly progress of the class as a whole against the objects laid out in the course descriptor.

4.11 Summary

This chapter presented the aims and methodological requirements of this study. It also described the motivation for approaching this research through qualitative methods. The study's research paradigm was elucidated to the reader and an overview of the study as it unfolded was provided also. The chapter then illustrated that the use of multiple types of data collection methods enables qualitative researchers to uncover the multiple realities generated by participants (and the researcher) during the evolution of an activity system. The chapter defined these methods in terms of this study and considered their drawbacks as well as the strengths associated with each one. This was done to justify to the reader the decisions that were made during the research design and to increase the study's trustworthiness. Additionally, the sensitivity of the research instruments to temporal facets was also described and shown to be adequate in addressing the study's methodological requirement. Without this sensitivity built into the instruments, especially the main instrument, the student reflective sheet, it would not be possible to accurately document change within the activity system from the perspective of the participants. The type of triangulation employed in this study was also described in this chapter as well as the coding method adapted from Blin's (2005) CHAT study on learner autonomy. The chapter concluded by describing the ethical considerations pertinent to the study by describing in detail the method for empirical analysis used in this study.

Chapter 5 Empirical analysis 1: modelling the activity system

This chapter provides for the empirical analysis by modelling the activity system of the blended language learning (BLL) course as designed by the researcher⁷. The chapter functions to provide a start point for the investigation of the BLL course's activity system. Firstly, this chapter provides an outline of the design of the BLL course: *Introduction to Irish*. The object of the activity system under study is highlighted in this section. Additionally, Section 5.1 describes the design principles that were followed to create the bespoke learning environment under investigation. The pedagogical approaches underpinning the course's structure will also be explained in this section. The cultural and historical background of the institution that provided the context for the activity system under study are then described in Section 5.2. Following this, the various elements within the course's activity system are defined such as the course's participants (subjects) and the tools that constituted the course's blend. During the definition of the course's subjects in Section 5.3, the researcher will present the findings of the questionnaire used in the main study. Section 5.4 provides a representation of the BLL course at the beginning of the study. Section 5.5 illustrates a theoretical representation of the course's interacting sub-activity systems.

Modelling the design of the BLL course in this way enabled the researcher to construct a model of the activity system that emerged during the study (Chapter 6). Section 5.5 details the methods used to code, tag and analyse the data through the use of method triangulation. This is done in order to construct the activity system of the course from the perspective of the study's participants, and to identify the object-orientated actions of the participants over the duration of the language learning activity in Chapter 6.

5.1 Object and design of *Introduction to Irish*

This section describes the object and design of the BLL course *Introduction to Irish*. The design of the BLL course drew upon CHAT-based design principles put forth by Blin and Jalkanen (2014: 158-159) and other pedagogical approaches to language education, namely; *Inquiry Based Learning* (IBL) and

⁷ The author will refer to himself as the researcher for the remainder of this document.

the *Presentation, Practice and Production* (PPP) model of language teaching (Aditomo et al., 2013, Justice et al., 2007, Criado, 2013). An overview of Blin and Jalkanen's (2014) design principles is provided in Table 5.1. Additionally, the design of the course was also influenced by the discussion of SLA, BLL and CALL in Chapter 2.

The motivation to include elements of IBL in the design of the BLL course was to encourage students to pursue the Irish language in relation to their areas of interest or need. Colburn (2000: 1) defines IBL as:

...the creation of a classroom where students are engaged in essentially open-ended, student-centered, hands-on activities'.

Additionally, as the course was aimed at ab initio level learners the researcher posited that elements of the PPP approach would work well inside and outside of the classroom. In PPP the language teacher uses text, audio or some other artefact to present the target language. This target language is then practiced using activities such as structured speaking exercises, drills, or through listening exercises. The production phase involves the learner using the target language to engage in freer communication through dialogues or other activities (Richards and Rodgers, 2014: 54). During the production phase language students are afforded more freedom to complete these tasks or activities using the target language in that there is more than one correct answer. This allows the student to personalise the structures of the target language they have acquired in previous phases. These principles and approaches influenced the selection of technologies for the courses blend and the way in which the course was run over the duration of the study. The course's blend is discussed in more detail in Section 5.3.

Table 5.1 Principles of CHAT-inspired design model from Blin and Jalkanen (2014)

CHAT-Design Principles	
1	Language learning activities should be object-centred. Objects that are particularly suitable for the development of learner autonomy include the creation of multimodal artefacts whose purpose and life-cycle will go beyond those of the language course and that can be re-used or re-mixed by self or others (e.g., wikis, blogs, podcasts and video clips, electronic glossaries, interactive web-based exercises, etc.). The mediating components of the language learning activity should provide students with opportunities to construct and expand the given objects in different, yet converging, ways (i.e., to be agents of their own learning).
2	The language learning activity should be mediated by a rich horizontal division of labour. In other words, the construction of the object should require students to collaborate, and it should not be possible for the object to be constructed by students working independently of each other.
3	Carefully thought-out focus shifts should be built into the syllabus to avoid prolonged and unwelcome disruptions by providing students with basic digital literacies. Unforeseen focus shifts can then provide opportunities for further learning.
4	Internal and external contradictions are fundamental to the development and exercise of learner autonomy. Rather than being systematically eliminated, they should be identified and built upon through, for example, careful pedagogical scaffolding taking place at the macro, meso and micro levels and helping students to question the established practice and to create new forms of activity. Contradictions that cannot be resolved by the participants during the period allocated to the course, module or task should constitute the basis for future design initiatives.

Additionally, the researcher drew upon different *second language acquisition* (SLA) theories to plan exercises and choose technologies to be blended with the face-to-face classroom, such as the *acquisition learning distinction*, *input hypothesis* and *output hypothesis* (Krashen and Terrel, 1983, Krashen, 1988, Swain and Deters, 2007, Ellis, 2008b). Bringing these perspectives and principles

together and building on the researcher's experience as an Irish teacher, the researcher desired that the newly constructed BLL environment would enable the following:

- Student agency to pursue independent interaction with the language outside of the physical classroom.
- Opportunity for aural input in the language with supports outside of classroom (e.g. script and annotations).
- Opportunity for oral production and practice of the language outside of the classroom.
- Opportunity for aural input in the language inside of the classroom, both individually and communally.
- Opportunity for aural input in the language inside of the classroom, both individually and communally (e.g. listening exercises).
- Opportunity for oral production and practice inside of the classroom, both individually and communally (e.g. structured speaking exercises).
- Availability of CALL resources to address student need and foster IBL.
- Guidance and support from the teacher via traditional face-to-face interaction and the online tools in the form of feedback.
- Opportunity for student collaboration in face-to-face classes.

Blin and Jalkanen's (2014) first principle served as a starting point in the design process. The researcher defined the macro level object of the course as;

Object of the course: to develop ab initio learners' speaking and listening skills to an A1 level.

During the design phase, the researcher also identified the 'problem space' or the 'design space' in which the course existed (Levy, 1999, Preece and Rombach, 1994). The initial constraint or problem space for the course was temporal. This was primarily caused by funding constraints on the researcher to conduct the study in the United States. As such the researcher could only run a language course for six weeks before having to return to Ireland.

Proceeding this, the researcher then assigned objects to each week within the language course. These objects corresponded to topics identified by the *Common European Framework of Reference for languages* (CEFR) for lower level language learners. The researcher organised each week so as to strike a balance between input (exposure to authentic materials and scaffolding exercises, e.g. recording

from the teacher and audio on Duolingo) and output (production of artefacts by the learner, e.g. recordings of speaking assignments). This also enabled the researcher to fulfil Principle 3 above.

The CEFR organises language proficiency into six levels, from a basic user of the language (A1, A2) to an independent user of a language (B1, B2) and finally a proficient user (C1, C2). The levels are defined using descriptors of a learners ability in the language (CEFR, 2011). See Table 5.2 for the weekly topics of the language course that were decided using the CEFR.

Table 5.2 BLL Course breakdown

Week	Topic	CEFR level	End of week Assignments
1	Meeting people and talking about your background	A1	Duolingo assignment
2	Your background and where you live	A1	Duolingo and speaking assignment
3	Your family	A1	Duolingo assignment
4	Your Pastimes	A1	Duolingo and speaking assignment
5	Daily life	A1	Duolingo and speaking assignment
6	Daily live and review	A1	Duolingo assignment

These topics served as milestones to guide the actions taken during the course. This approach allowed the course to remain flexible and facilitated the adaptation of the course’s activity system to learners’ specific needs or areas of interest. By defining the milestones for the weeks instead of the specific exercises, materials or pedagogical approaches to be used, the researcher was afforded more freedom to include resources in the course’s blend that facilitated the participants different learning preferences. This also enabled the researcher to provide for the learners’ different interests. As mentioned in Chapter 4, the learners’ needs and interests were identified prior to the commencement of the course using the information gathered by the student background questionnaires and during the course through researcher observations.

The researcher divided each week into two segments. These segments began online and concluded at the end of each face-to-face class. The layout of the observation sheets took this format into account.

Tasks and assignments were given at the end of each week to strengthen recall and to help develop learners' oral and aural competencies using specified online tools. At the beginning of each week an introduction to the weeks learning objects was added to the virtual learning environments (VLE) SpeakApps (see Section 5.3.5). An overview of the week tasks the students were expected to complete was also included in this introduction. Tasks included interacting with specific online tools, looking up vocabulary related to a specific topic, reviewing audio material and key phrases, making recordings or preparing answers to questions for face-to-face communication exercises. Additional links to language learning resources were also added to different weeks on SpeakApps in order to guide the students' interaction with the target language. The resources posted varied on a weekly basis as certain resources were more relevant and useful in terms of the learning objects set by the teacher that week. Importantly all resources remained available to the students once it had been introduced. Using the course other VLE, Duolingo Schools (see Section 5.3.7), language tasks were also set in the form of weekly assignments. These assignments were used to motivate the students to interact with the target language outside of the face-to-face classroom using the Duolingo Irish language course. In the classroom engaged in numerous task;

- At the beginning of class tasks included reviewing as a group the topics, resources or vocabulary as highlighted in the week's introduction as well as information covered in the previous face-to-face class.
- During class students were tasked with using the language to engage in listening exercises and to decode the message contained therein, and to prepare for one-on-one and group use of the language in communication exercises. The teacher would also elicit key phrases and vocabulary and write them on the board to support the students during these communicative exercises (see Figure 4.3). Communicative exercises tasked students providing and receive new information regarding themselves and others that related to the week's topic (see Table 5.2).

- Towards the end of the class future objects such as revision of certain language items (e.g. topics, vocabulary, phrases related to specific topics) were highlighted to the students. Audio assignments using language related to the course's weekly topics were also highlight to the students every other week in the course. The teacher used this opportunity to clearly state the type of content that was require in the audio recordings and to ask questions of the students regarding the type of language they would need to complete the task.

All weekly learning objects set out by the language teacher and their associated tasks are available in the researcher observations sheets in Appendix Q.

As this course was not offered for credit at the institution and was made available to the general body of CMU as an extra-curricular activity no credits or grades were given. There was no formal examination of the learners' ability at the end of the course (See course descriptor, Appendix M). Learners were however invited to participate in an informal conversation at the end of the study. This conversation was recorded for further future analysis to determine the level the students reached in Irish using the CEFR (see Appendix S for assessment of the participants' levels at the conclusion of the study). The following section describes the larger context of the research site at the time of the study.

5.2 Cultural and historical context of the research site

This section describes the larger cultural and historical context in which the study was situated. This description serves to frame the larger social community of the research site. It also illustrates the innovative and experimental culture of the host institution.

Carnegie Mellon University (CMU) was originally founded in 1900 by the famous Scottish-American industrialist and scholar, Andrew Carnegie as Carnegie Technical Schools. Since its founding, CMU has become a world renowned university and an international leader in research and innovation across the academic spectrum (Universities, 2017). According to the 2016-2017 Time's Higher Education World University Rankings and QS World University Rankings, CMU is ranked 23rd and 58th university respectively in the world (Universities, 2017, Education, 2017). Beyond its main campus in Pittsburgh,

CMU maintains additional campuses across six continents including campuses in Silicon Valley, California and Qatar.

CMU's culture is reportedly one of tolerance, openness and respect. This is necessitated by the university's multicultural and multidisciplinary nature. CMU's student body is comprised of 13,650 students from 114 countries (University, 2017a). The multicultural nature of the institution can be traced back to its founding years when Carnegie Institute of Technology awarded its first PhD degree in 1919 to the Chinese-American structural engineer and social activist, Mao Yisheng (Smith, 1983). Among CMU's pioneering achievements are the first Wi-Fi network (Hills, 2011), autonomous driving technology (Stokes, 2015) and the world's first dedicated university robotics department founded in 1979. Indeed, one of the main CALL technologies used in this study, Duolingo (as discussed in Section 5.3.7) was developed in CMU.

Carnegie Mellon has a long standing tradition of multi and interdisciplinary study. This is especially true regarding the incorporation of IT with the humanities and language learning in general (University, 2017c). As mentioned, CMU's student body is very reflective of this. Stipulations such as the 'Carnegie plan' implemented as far back as 1938 state that those studying science or engineering also study courses in the humanities and social sciences to better understand the needs of society. The theory behind this being that it contributes to new ways of thinking and spurs collaboration in the problem solving process (University, 2017c).

The description of CMU above is based on the official description of the university provided by the institution itself. The description is based on texts published online by CMU and other online sources such as university world ranking agencies. The texts provided by the university are considered to be *readerly texts*. Barthes (1975) contends that most texts are readerly texts.

Such texts are associated with classic texts that are presented in a familiar, linear, traditional manner, adhering to the status quo in style and content. Meaning is fixed and pre-determined so that the reader is a site merely to receive information. These texts attempt, through the use of standard representations and dominant signifying practices,

to hide any elements that would open up the text to multiple meaning. Readerly texts support the commercialized values of the literary establishment...

(Arts.uwaterloo.ca, 1999)

Based on this understanding of readerly texts, the texts provided by CMU are not sufficient to accurately describe the larger context of the research site. They must therefore be contrasted with the researcher's experience and observations of the institution in order to confirm or disprove the narrative provided by the university. The researcher found that his experience of CMU accurately mirrored the description provided in the readerly texts from the institution. Over the two months that the researcher spent in and around the research site, the researcher observed that CMU has a diverse and tolerant student body with a strong multidisciplinary nature. During this time the researcher interacted with different members of CMU's faculty and student body which provided him with insight into the way in which the institution was viewed from various perspectives. In general, the institution was viewed very favourably by its population. CMU's multidisciplinary nature and diverse population was also reflected by the study's participants. The discussion of the results of the student background questionnaire in Section 5.3.1, illustrates this. The next section describes the larger context of the research site as the researcher experienced it at the beginning of this study.

5.2.1 Description of research site at commencement of main study

The study took place in the first semester of the academic year 2016-2017 at CMU. When the researcher arrived at the research site the summer vacation period was coming to an end. Students and staff were still returning to the campus. Ethical approval to conduct this study was received from CMU in July 2016 (available in Appendix G). Due to the proximity of this date to the beginning of the main study it was not possible to engage in the recruitment of participants until the starting weeks of the academic year. The researcher was located in Dietrich College within the Department of Philosophy. The department has a strong background in linguistic research (University, 2017b) and proved to be an ideal base of operations for the researcher. The study began on the 13th of September, in the second week of CMU's first semester.

5.3 Modelling the BLL activity system

This section provides a theoretical representation of the activity system of the BLL course as envisaged by the researcher prior to the implementation of the study at CMU. As highlighted in Chapter 3, according to CHAT an activity system is comprised of the following six elements: subject, community, tool or artefacts, rules, division of labour and an object/goal (or a number of these). The elements which impinge on the actions within an activity system are the division of labour and the rules as well as the tools and artefacts which are available to that community. The object of the BLL course's activity system and the course's weekly topics have been described in Section 5.1.

5.3.1 Subjects and community of learners

A questionnaire was administered prior to the commencement of the language course in order to gain an insight into the language learning and technology backgrounds of participants (available in Appendix H). As mentioned in Chapter 4, prior to the analysis of the questionnaire, each participant was assigned a descriptor, from Learner 1-11, in order to protect their anonymity. Of the eleven students who participated in the study, 10 students returned completed questionnaires. Table 5.3 below provides the reader with an overview of the participants' demographic information.

Table 5.3 Demographic information

Participants' demographic Information	
Gender breakdown of <i>Introduction to Irish;</i>	
Female	5
Male	6
Age ranges	18-54
<i>Participant's roles within the larger context of the university;</i>	<i>Learners;</i>
Undergraduate students	7, 8, 11
Postgraduate Students	4, 5, 2*
University Employees	1, 2*, 6, 9, 10

The questionnaire was distributed among the class at the information session prior to the commencement of the course. One questionnaire was distributed halfway through the course as a

new student (Learner 11) joined the class. The data recorded with the questionnaire reflects the description provided above of the larger social context of CMU.

As Table 5.3 shows, the class was essentially evenly divided along gender lines. Over the duration of the study five females and six males participated in the course. The ages of the participants ranged from 18-54. Learners, 4, 5, 7, 8, and 11 were students at CMU. Of these learners, three (Learners 7, 8 and 11) were undergraduate students at CMU. Learners 8 and 11 were studying linguistics as a part of their undergraduate degrees. Learner 7 was studying chemical engineering as a part of their undergraduate degree. Learner 4 was pursuing a masters in SLA. Learner 5 was pursuing a PhD in Mathematics.

The remaining participants (Learners 1, 2, 6, 9 and 10) were employees of the university. One participant worked as a French language professor at the university. The remaining participants worked in administrative roles. Learner 2 was also pursuing a master's degree in organization management at the time of the study.

Table 5.4 Overview of languages spoken or studied by the participants

Participants	Mother tongue:	Other languages spoken fluently:	Other languages studied:
Learner 1	English	Spanish, French, Italian	German, Russian
Learner 2	English		Spanish
Learner 3	Questionnaire not returned	Questionnaire not returned	Questionnaire not returned
Learner 4	English	Japanese, Navajo	Mandarin-Chinese, Spanish, Danish
Learner 5	English		Spanish
Learner 6	Portuguese	English, French	Spanish
Learner 7	English		Spanish
Learner 8	English		Latin, Italian, Spanish, American Sign Language, French
Learner 9	English	French	Spanish, German
Learner 10	English		French
Learner 11	Mandarin-Chinese, Japanese	English	Old Icelandic, German

Table 5.4 above shows that English was the mother tongue of the majority of the class. Two participants differed from the class norm in relation to this. Learner 11 spoke both Mandarin and Japanese as their mother tongues. Learner 6 spoke Portuguese as their mother tongue. Five members of the class were fluent in at least one other language while three of the students

spoke two languages or more fluently (Learners 1, 4 and 6). All participants had studied another language at some level prior to this study. Most of these languages were European in origin. One lesser-used language was reported in the questionnaire. Learner 4, reported that they spoke the Navajo language. This participant also spoke Japanese fluently. Other languages studied by the participants included Danish, Norwegian, Latin and Old Icelandic. None of the participants had studied the Irish language before the commencement of the course.

The majority of the students who responded to the questionnaire stated that they had used technology for language learning purposes. Only three of the class reported not using technology for language learning purposes (Learners 2, 5 and 10).

The majority of the class stated they enjoyed using computers for learning. For example, Learner 8 stated that technology helped her to retrieve information quickly and that technology helped with pronunciation. Learner 4 stated that he liked using technology because it allowed for self-paced learning and because it is mobile. These participants cited various different apps and online resources for language learning. The most commonly cited resource was Duolingo. Other resources included; various online dictionaries, Google Translate, Anki intelligent flashcard and Memrise.com. Participants added that they used these resources for help with grammar, pronunciation, vocabulary and practicing their listening skills. Participants reported the following reasons why they enjoy using technology:

- Helps with pronunciation
- Quickens retrieval of information
- Allows access to more resources
- Useful for verifying pronunciation
- Allows one to learn at one's own speed
- Helps with understanding culture
- Helps to enrich the learning experience

None of the participants mentioned blended learning as a concept. Two participant, Learners 9 and 10, stated they did not like using computers for learning purposes. Learner 9 expressed that the computer did not always satisfy her learning requirements. Learner 10 stated that he had never tried using technology for this purpose and that he was unsure of it.

All of the participants had access to multiple devices. Every respondent stated that they had access to a smartphone and a computer (mostly a laptop). Half of the respondents also had access to a tablet. With regard to the devices themselves there was a mixture between operating systems (Android, Windows, Apple, iPhone etc...).

Finally, the questionnaire investigated participants' motivations for taking the course. The participants reported several motivations. Four participants, Learners 2, 4, 5, and 10, stated that their motivation for taking the course was to learn more about their Irish heritage, Irish culture in general and also the language itself. Learners 1, 7, 8 and 11 stated that they enjoyed language learning and that they wanted to learn a new language. Another motivation for taking the course was simply for fun and general interest or curiosity. Identifying the different motivations for taking the course also helped the researcher in identifying the objects of the community within the overall activity system of *Introduction to Irish*. Being aware of these motivations helped the researcher to adapt the learning environment in order gear it towards the participants' interests.

5.3.2 Tools and artefacts

This section explains the different tools and artefacts used in the BLL course. During the discussion of these tools and artefacts the researcher will illustrate their pedagogical value by referring to research related to CALL, SLA and pedagogy in general. Their functions and roles will be elaborated upon in the discussion below. This will be done by giving examples of the planned uses of the tools and artefacts in the course and which potential types of learning objectives they could facilitate students to pursue. This discussion will begin by briefly elucidating what traditional educational technologies were used in the blend. The digital technologies used in the course will then be discussed.

5.3.3 Traditional learning tools

For the purpose of this study traditional learning tools and artefacts have been defined as those which are in common use in classrooms situated in the western world, such as blackboards and chalk, pens, paper, text books, desks etc... Bax (2003) describes these tools as being invisible and normalized in the context of the modern learning environment. Bax's (ibid) descriptions echo an earlier statement made by Warschauer (1999) that:

The truly powerful technologies are so integrated as to be invisible. We have no "BALL (book assisted language learning), no "PALL" (pen assisted language learning) and no "LALL" (library assisted language learning). When we have no "CALL", computers will have taken their place as a natural and powerful part of the language learning process.

It would appear that the condition he laid out almost 20 years ago, for CALL to become invisible, has still not been achieved. The aforementioned traditional technologies are used across all subject areas and at every level of study in one form or another. Computers have begun to play a larger role across education but it must be noted that computer assisted learning and BL are different. As such the successful integration of all tools in a BL environment needs to be investigated as a distinct phenomenon (Chapelle, 2001). This CHAT study is concerned with the identification of contradictions within a BL classroom, not identifying these tools and artefacts in the modelling process of the activity system would leave an incomplete image of the course.

A gap in this area of knowledge would ultimately hinder in-depth analysis. It would also prevent the researcher from gaining a deeper insight into the activity of the participant or draw conclusions from such insights.

Within this activity model the traditional learning tools and artefacts are:

- Course book and audio material from *Gaeilge Gan Stró! Beginner's Level* by Ó Dónaill (2011)
- Student note making material (copy books, pens, pencils)
- Blackboard and chalk
- Hand-outs from the teacher

Traditional teaching tools such as books pens, paper and others that one would expect to find as a part of a traditional language course occupied important positions within the course's (*Introduction to Irish*) activity system. Much of the operation of the face-to-face class was similar to that of traditional non-blended classes, yet there was less emphasis placed on book use and writing. The traditional tools and artefacts functioned to support oral and aural exercises, their use built on actions taken by the students in the online section of the course. As stated above the object of the course was to develop the students' communicative competence in the target language to A1.

The primary corporeal artefact that was used by the teacher in this study was the book, *Gaeilge Gan Stró! Beginner's Level* by Éamonn Ó Dónaill (2011). This Irish course book is specifically designed for ab initio language learners and the topics that were covered sequentially in the book corresponded to the weekly course topics based on level descriptors in the CEFR (see table 5.1 above). Additionally, this book is also supplemented by an extensive collection of audio material and scaffolded speaking exercises. The inclusion of this resource in the learning blend created more opportunity for traditional language learning activity. This was included to provide the opportunity, should the learner have desired, to engage in this type of learning activity. This

resource also provided learners with the opportunity to acquire new vocabulary, improve their understanding of Irish grammar and help them model their monologues for their speaking exercises and assignments. The book's audio resources were used in the face-to-face classes as a means to scaffold students' speaking exercises and improve students' understanding of dialects. The course book also served as a catalyst for reflection and conversation about multiple topics such as pronunciation, and grammar as well as historical and cultural aspects related to the language. The following section describes the digital technologies that were used in the course.

5.3.4 Digital technologies

Table 5.5 provides an overview of the different technologies that were used in the BLL course.

Each of these digital technologies is discussed in detail with reference to the defined roles they fulfilled.

Table 5.5 Main digital technologies for Introduction to Irish

Main digital technologies used in course	Description	Use in course
SpeakApps	Learning management system	<ul style="list-style-type: none"> • Dissemination of learning resources. • Technology support. • Provision of weekly instructions related to specific technologies. • Dissemination of weekly challenges and topics. • Observation of participants' online activity.
Duolingo	Online language learning platform	<ul style="list-style-type: none"> • Facilitation of independent learning and interaction with target language outside of the classroom. • Weekly assignments. • Preparation for classroom exercises. • Observation of participants' online activity.
Anki Intelligent Flashcards	Digital flashcard platform	<ul style="list-style-type: none"> • Vocabulary acquisition. • Aural input (clarification on pronunciation of certain words).
SoundCloud	Online audio distribution platform	<ul style="list-style-type: none"> • Distribution of audio material. • Submission of speaking assignments. • Assessment of students' oral development.

5.3.5 SpeakApps - learning management system

SpeakApps forms the organisational backbone of the digital portion of the BLL environment. It was used as the course's learning management system (LMS). Learning management systems have the capacity to create a VLE for students operating as a part of a real world course (Coates et al., 2005).

The SpeakApps platform provides access to three built in Apps; Langblog, Tandem and Video Chat. These apps were purposefully included in the design of the SpeakApps platform to facilitate the development of learners' listening and speaking skills. These apps did not form

part of the blend for the course due to time constraints upon the research. This decision was informed by the researcher's experience using SpeakApps during the four week pilot study. The researcher used SpeakApps as the course's bespoke Moodle-based VLE in the main study.

The role of SpeakApps within the BL course's activity system was primarily to share learning materials and provide learners with an organised collection of the course's content. These materials came in several different formats including, PDFs, audio links (such as SoundCloud links; SoundCloud is discussed further in Section 5.3.6), links to app downloads (Anki, discussed in Section 5.3.6), CALL resources (such as Duolingo, discussed in Section 5.3.7) and cultural material and other language learning resources (for example; YouTube videos) as described in Section 5.3.8.

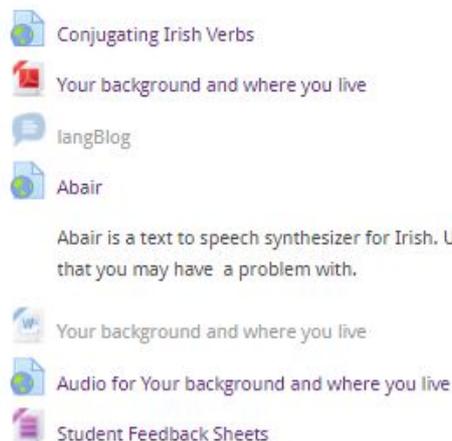
Resources were uploaded on a weekly basis. Each resource was chosen by the researcher with the purpose of building on students' knowledge and contributing to their skill development in line with the week's topic (see Table 5.1 above). Their inclusion was deemed to hold pedagogical value in the pursuit of the overall object of the BL course, i.e. developing learners' listening and speaking skills to an A1 level. Additionally, in response to the participants' stated motivation above the researcher added cultural resources relating to sport, music and Irish animation. These resources served to add an element of fun to the language class. Figure 5.1 below shows a segment of the course's VLE, SpeakApps.

Week One

This week we will be focusing on basic phrases in Irish. By the end of this week you should be able to use and understand familiar everyday expressions of a basic type and also be able to talk about your background in a limited way.

For class this Tuesday please review the Oppia exploration below and listen to the Sound Cloud recording of the PDF document titled *Your background and where you live*. Please print the PDF document for the class.

The face to face class will take place in Porter Hall 226A at 4 30 pm



Abair is a text to speech synthesizer for Irish. Use this tool to figure out the pronunciation of any words that you may have a problem with.

Week Two

This week you will continue to learn to talk about your background and where you live. You will also begin to talk about what you like and dislike as well as talking about your family.

Figure 5.1 SpeakApps classroom for Introduction to Irish: Week One

Each weekly section on SpeakApps was laid out uniformly. As Figure 5.1 above illustrates, the sections began with directions on what resources had been included in a particular week. An explanation of why the resources were included and a connection with the course's topic was also given. Students were explicitly informed of how and when to use certain posted resources that would influence face-to-face exercises.

As stated, the primary function of SpeakApps was to help to organise the specific materials that had to be covered in the face-to-face class and online. Another function was also to allow students to access material for review easily anytime during the course. SpeakApps also helped the teacher to identify the percentage of the class accessing the materials. As mentioned in

Section 4.5, the user statistics or the students' actions prior to the class were included in the observation sheets. Lastly, the simplicity of the SpeakApps layout made it an ideal method with which to connect participants with additional technologies and language learning tools. These will now be discussed.

5.3.6 SoundCloud

SoundCloud is an open online audio distribution tool from Germany. The platform enables its users to create audio files and share them easily via the site's social functions and other communication platforms such as email and commonly used social media services. SoundCloud is currently the world's largest music and audio platform (Soundcloud, 2017). This platform was used in several different ways during the Irish course.

SoundCloud was used in the BL course by participants to record monologues in Irish. The researcher used these monologues to plan lessons and develop participants' competence in relation to specific linguistic items such Irish vocabulary related to the family. This form of asynchronous interaction with the researcher created an opportunity for the participants to practice speaking the target language outside of class. The pedagogical use of this tool with the course is in line with suggestions from teachers that 'learners require a "real" reason to communicate to produce an outcome that is not necessarily linguistic' (Nic Giolla Mhichíl, Ó Ciardúbháin and Ó Doinn, 2014). The monologues also provided the researcher with a way of highlighting the participant's language learning issues. This in turn influenced the researcher's lesson plans.

Ellis (2008) states that linguistic competence is best developed through repeated practice and interaction with the target language. He goes on to state that in order to create an acquisition-rich classroom, the messages being transmitted must have personal meanings for the learner (Ellis, 2008). The monologues were guided by questions posted by the researcher in the VLE (See Figure 5.2 below). These questions related to different topics laid out in the course description above (Table 5.1) and were designed to elicit personalised responses from the participants. The

report on the participants' levels at the conclusion of the study illustrates the different types of vocabulary acquired by the participants in the course (see Appendix S). This report provides evidence that the course facilitated participants in transmitting personalised information as per Ellis's (ibid) requirement. This is discussed further in Chapter 6.

The researcher also used SoundCloud to distribute authentic monologues related to the weekly topics. This provided the students with additional aural input from the teacher outside of the classroom and also served to provide examples of pronunciation of new and existing vocabulary. Depending on when along the weekly timeline of the course that the materials were posted, the material could be used to prepare students for speaking exercises ahead of a face-to-face class or as a scaffold to assist students in their construction of their speaking portfolio. Figure 5.2 provides an example of questions that were asked of students on SpeakApps and how the SoundCloud was linked to the VLE in Week 3. A transcript of the Irish audio titled *Teaghlach Uí Dhoinn* (The Ó Doinn Family) and English translation that supported this speaking assignment can be seen in Appendix N.

Week Three

This week we will continue to learn to talk about ourselves and our family.

You should be able to answer these question for our next class on Tuesday:

1. Cé mhéad duine atá i do theaghlach/ do chlann? - How many people are in your household/family?
2. Cad is ainm dóibh? - What are their names?
3. Cad is maith leo? What do they like?
4. Cad a dhéanann siad? - What do they do?
5. Cá bhfuil siad ina a gcónaí? Where do they live?

-  Irish song: Tóg é go bog é by Kíla
-  Teaghlach Uí Dhoinn
-  Soundcloud link to Teaghlach Uí Dhoinn recording

Figure 5.2 Week 3 on the SpeakApps classroom

5.3.6 Anki intelligent flashcards

Anki is an intelligent flashcard programme that was included in the blend of the language course to aid learners' vocabulary acquisition. The programme makes use of active recall testing to strengthen learners' memory of specific material. Anki is based on a process developed by Sebastian Leitner to aid memorisation activity (Leitner, 1972). This process is called the Leitner system (Altiner, 2011).

Anki is available across all software platforms e.g. Windows, iOS, Android, and hardware form factors, e.g. laptops, tablets, smartphones. Anki cards allow the addition of media, such as pictures and sounds which further adds to this programme's pedagogical value for language learning. Unfortunately, it is not free on Apple mobile devices. iPhone users could still access Anki decks via their device's internet browser.

Users could also create their own learning resources with Anki based on content covered in class or on another platform such as Duolingo. Anki resources can be prepared in a relatively short space of time and distributed through different platforms. With Anki, the teacher had the ability to address participants' pronunciation issues related to specific words as they arose during course. The content of the Anki decks produced by the teacher during the study were influenced by his observations of participant's difficulties during the face-to-face classes and mistakes in their recorded monologues. This allowed the researcher to use Anki as a bridge between what was covered in the face-to-face classes and what the participants' produced online. It also functioned as a form of feedback for the class and highlighted areas that the class needed to focus on. It was intended that these decks would prepare students for further aural and oral exercises. This is also in line with Krashen's (1989) input hypothesis theory. Additionally, Eldridge et al. (2010: 100) are keen to point out that for ab initio learners;

...such cards may be particularly useful in early stage language learning in driving students towards the key threshold they must pass if their language is to progress, providing contextualized and continued exposure to key lexis on a continued and repeated basis.

5.3.7 Duolingo and the Duolingo Classroom

In the BLL course Duolingo was used by the participants to interact with the Irish language independently outside of the classroom. The course content exposed learners to new vocabulary, audio material, Irish phonology, grammar rules and Irish orthography. The tool is entirely free across all platforms. Additionally, the group interview with participants in the pilot study revealed that the design of the app was very appealing to learners. Additionally, research conducted by Bahjet Essa Ahmed (2016) and Munday (2016) found language learners at lower level enjoy using Duolingo more than advanced language learners. Furthermore, the tool incorporates gamification into its design. This adds an additional element of fun to the course's blend.

Duolingo also provides another platform, Duolingo Schools. This tool is a VLE that enables the teachers to create online classrooms to interact with their learners through Duolingo user profiles. This platform gives teachers an insight into areas of difficulty for the learners and their independent interaction with the language outside of the allotted face-to-face time. The Duolingo classroom provides the teacher with the facility to create assignments using the Duolingo platform. The researcher used this platform to blend this technology with the BLL course. The platform facilitated the teacher in planning for classroom activities as it highlighted the skills and vocabulary that had been covered on Duolingo by the individual participants.

While this study was being undertaken Duolingo Schools was in its early stages of development. Issues relating to functionality, such as the distribution of assignments and the display of learner analytics, still needed improvement. A screenshot of the Duolingo classroom can be seen below in Figure 5.3. Any personal information related to the learners has been de-identified in accordance with the ethical protocols laid out for the study.

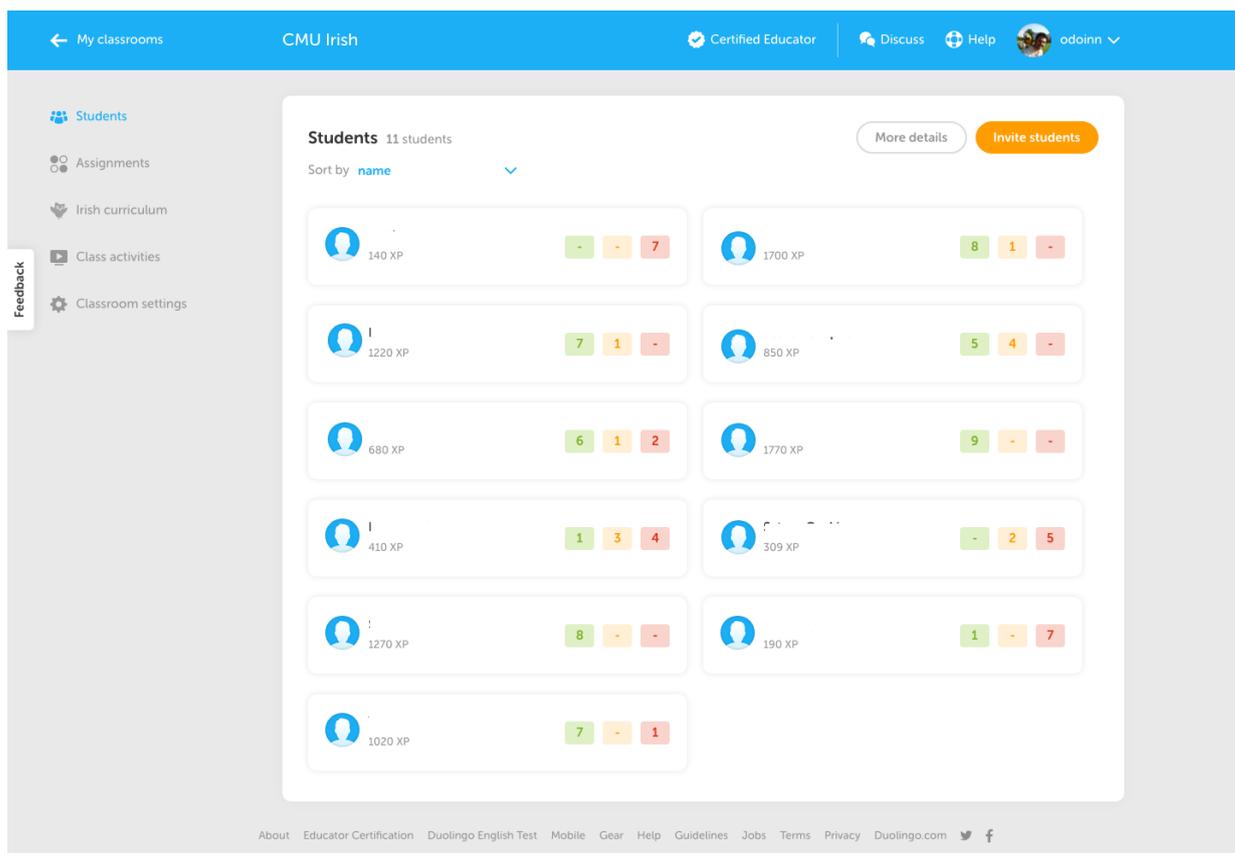


Figure 5.3 Duolingo Schools Classroom, CMU Irish for Introduction to Irish course

At the beginning of the course participants were made aware that a minimum of 100 experience points needed to be earned every week. 10 Experience points are awarded for every lesson that is complete on Duolingo. Different skills are comprised of various amounts of lessons. A breakdown of the weekly Duolingo assignment task is available in Appendix O. This was made explicitly clear to the learners and in order to reinforce this, the learners were assigned different tasks through the Duolingo VLE each week. These tasks focused on equipping learners with certain skills or vocabulary for use in the speaking assignment. Other tasks focused on gaining experience points. Learners were also encouraged to use the tool more than the specified amount of time. An example of the teacher's view of one students' activity (Learner 2) and completion of assignments can be seen below in Figure 5.4. Again, learner information has been de-identified here.

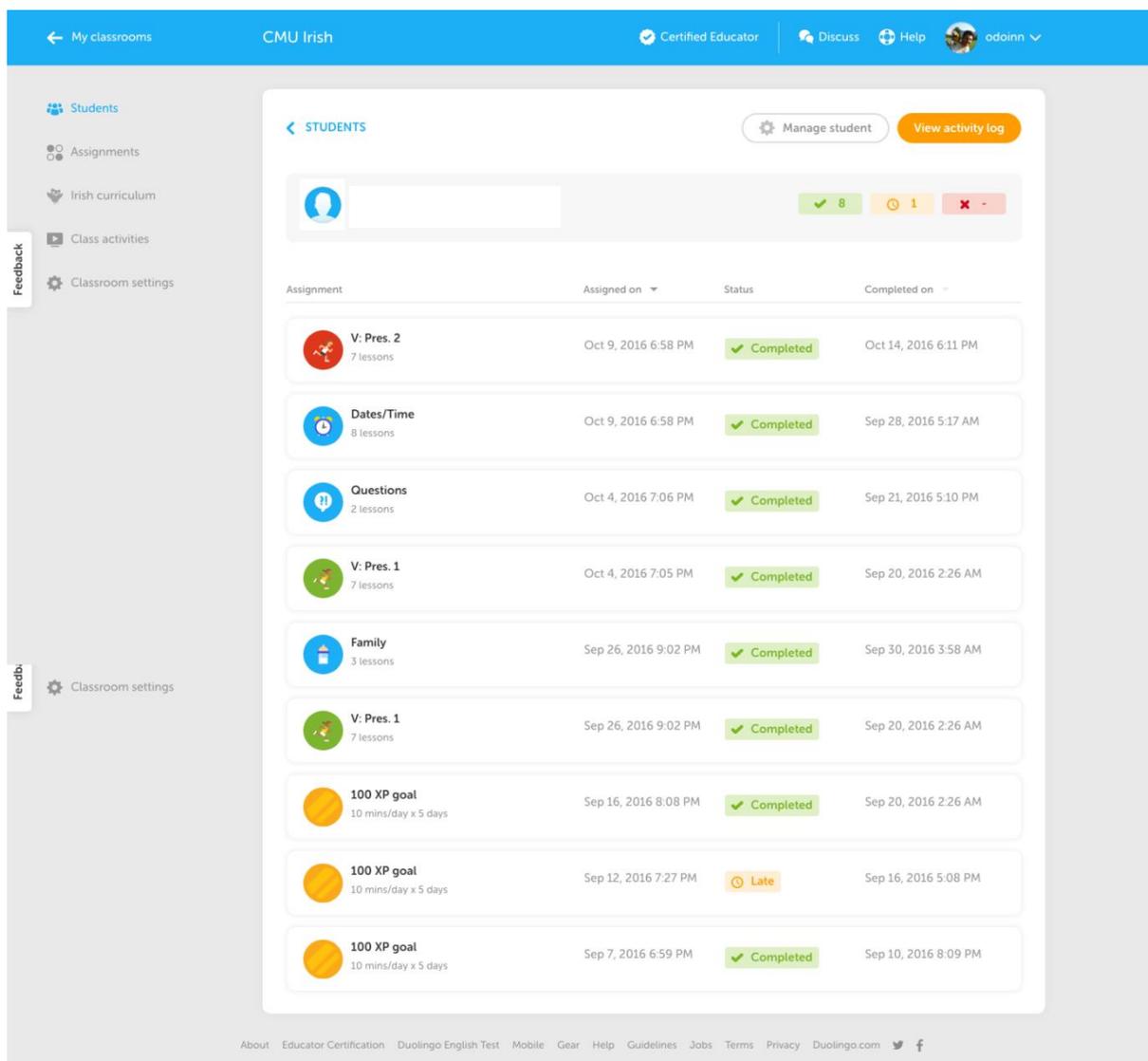


Figure 5.4 Student activity log on Duolingo Schools for Learner 2

The following section lists the other digital technologies that were used in the BLL course.

5.3.8 Other digital learning resources

As mentioned above the researcher included other language learning resources in the blend for *Introduction to Irish*. These were used either on a one off basis or sporadically over the course's timeline. The majority of these technologies only played minor roles in comparison to others (Duolingo for example). In the interest of clarity, the research will list all other online tools and artefacts used by the teacher and learners during the course. The following is a list of tools used by the researcher during the course:

- Email
- PDFs of new vocabulary, phrases and sample monologues to support student learning and classroom speaking and listening exercises
- Irish language and cultural videos via YouTube. These videos related to Irish songs and sports
- Content and language integrated learning platform; Clilstore
- Speech synthesiser; abair.ie
- Online dictionaries and phrase banks; focloir.ie, tearma.ie, potafocal.com
- Interactive workbooks in the form of Oppia explorations: Oppia is a platform that teachers can use to create interactive learning explorations for a variety of different subjects including language learning

A taxonomy of the various additional tools and artefacts used over the duration of the study can be seen in the Table 5.6.

Table 5.6 - Taxonomy of additional tools used in the BL course.

Tools	Description	Use in course
Email	Communication tool	<ul style="list-style-type: none"> • Dissemination of resources and information directly with the students. • Avenue of direct communication between the teacher and the learner.
PDFs	Electronic version of materials	<ul style="list-style-type: none"> • Support learners in face-to-face classes and assignments. • Provide learners with traditional language education input.
YouTube	Video sharing site	<ul style="list-style-type: none"> • This tool was used to enrich the course by exposing learners to aspects of Irish culture, such as its music, sport and animation.
Abair.ie	Text to speech synthesizer	<ul style="list-style-type: none"> • Support learners in developing their pronunciation skills.
Multidict.net's Clilstore	Content and language integrated learning system	<ul style="list-style-type: none"> • Provide learners with additional input and support while working with authentic materials such as YouTube videos.
Online dictionaries and terminology databases: Foclóir.ie, potafocal.com, téarma.ie	Dictionaries and term databases	<ul style="list-style-type: none"> • Giving learners the awareness to look up new vocabulary for assignments and in preparation for face-to-face exercises.
Oppia.org explorations	Guided interactive online lessons	<ul style="list-style-type: none"> • Introduce learners to the course. • Provide background and context to learners relating to the face-to-face classes. • Support the development of learners' grammar.

The table above illustrates the roles that these tools and artefacts played in the course. The use of some of these tools was explicitly prescribed by the researcher. Others were provided to the learners to be used electively, in order to facilitate learner agency and to spur self-directed learning. As mentioned in the discussion above the purpose and use of these tools were made clear to the learners on the course's VLE (SpeakApps) and in the physical classroom.

This concludes the discussion of the traditional and online tools that constituted the course's blend. The following sections detail the division of labour in the course and the rules that governed the course's activity system.

5.3.9 Rules and Division of Labour

As is the nature of any BL environment, the rules and the division of labour within this activity system spanned both physical and online spaces. As activities in these spaces are interdependent and essential to the functioning of the BLL course it is incumbent upon the researcher to clarify the roles (the division of labour) of each member of the activity system. Additionally, the researcher must define the rules that govern the division of labour in both the online and physical space.

The activity within the BL course was mediated by a set of explicit and implicit rules. This is the case with all activity systems. The explicit rules that governed the course are provided in the course descriptor (Appendix M). The course required learners to attend two face-to-face classes a week and to complete language tasks by interacting with the target language online and through the completion of assignments. This interaction could be with tools prescribed by the teacher such as in the case of Duolingo assignments or with other tools that the learner had identified. Additionally, learners were required to participate in language challenges and communication exercises in the face-to-face classes. Learners were informed of the general rules in the course again during the informed consent/orientation meeting that took place at the beginning of the study. This was done as a part of the study's ethical procedures also.

Blin (2005: 110) states that implicit rules govern subjects' participation during communal language learning activity. The implicit rules within the activity system under study are found in most Anglophonic countries. Communication and interaction between the subjects within the activity system were regulated by the common social norms found in western classrooms. These social norms primarily include but are not limited to 1) respect for the individual regardless of gender, race, religion etc..., 2) a willingness to participate in the class activities and cooperate

with others in groups, 3) basic manners and politeness (for example allowing others to speak, turn taking, helping fellow students etc...) These implicit rules are also supported by the values of CMU's larger social context as described in Section 5.2.

Table 5.7 illustrates the division of labour in the course, or the teacher and student actions prior to, during and after class. The table also makes reference to the rules of the activity system. As mentioned the rules and division of labour span the online and physical space. Specifically, this includes tasks undertaken prior to the face-to-face class and after which take place online or in an external setting such as the participants home. It must be noted that the division of labour throughout the course was not static. The table below provides the most common tasks that were specified or undertaken by the learners and the teacher.

Table 5.7 Breakdown of Division of labour and Rules for Introduction to Irish

Division of labour (DOL) and rules across the space and time of the BL course	DOL and Rules for Teacher	DOL and rules for learner
DOL prior to the class	<ul style="list-style-type: none"> • Manage overall course schedule and post materials on the course’s VLE. • Provide guidance to students on how to use resources that encourage students to take action to improve their Irish. • Monitor student progress through the learning tools (Duolingo and SpeakApps). Use this information to plan face-to-face class accordingly. 	<ul style="list-style-type: none"> • Access material posted online prior to class. • Interact with specified tools on the VLE. • Complete specified assignments within given time periods.
DOL during the class	<ul style="list-style-type: none"> • Give the class feedback based on their online activity. • Provide students with material and documents in order to guide student actions. • Provide students with additional input when required. • Direct learners in aural and oral exercises and develop learners’ competence in the language based on the observed actions of learners during these exercises. 	<ul style="list-style-type: none"> • Attend class and have completed specified tasks online. • Participate in classroom exercises • Cooperate with other learners in the classroom and assist others where possible during exercises. • Seek assistance or clarification from the teacher should it be required.
DOL after class	<ul style="list-style-type: none"> • Continue to monitor learner progress in relation to the topics and materials covered over this period. • Create new materials or add additional tools/resources to the learning environment to address learner needs if required. • Review class progress in relation to class schedule. 	<ul style="list-style-type: none"> • Complete specified assignments in preparation for next face-to-face class. • Continue to interact with the target language outside of the classroom. • Review topics and materials covered in the course previously. • Explore the language in ways that relate specifically to the learner’s needs, interest or requirements (e.g. vocabulary and phrases specific to the learner).

According to Blin and Jalkanen's (2014) second principle as outlined in Section 5.1, a rich horizontal division of labour that facilitates collaboration and the achievement of a goal is highly desirable. Building on this principle the researcher focused the face-to-face classroom activity on group tasks and challenges in order to spur communal use of the language.

5.4 Representation of the activity system under study

This section will provide the reader with a graphical representation of the design of the BL course's activity system in the form of Engeström's 'triangles' (Engeström, 1987). This graphical representation is based on the elements discussed above in the modelling of the course's activity system. Blin (2005: 114) asserts that;

These triangles are a convenient and graphical way of representing the initial context of the activities that are about to unfold through the real-life implementation of the syllabi.

Simply put this triangle provides a start point for the activity system of *Introduction to Irish*.

Figure 5.5 below provides a representation of the activity system from the macro level perspective.

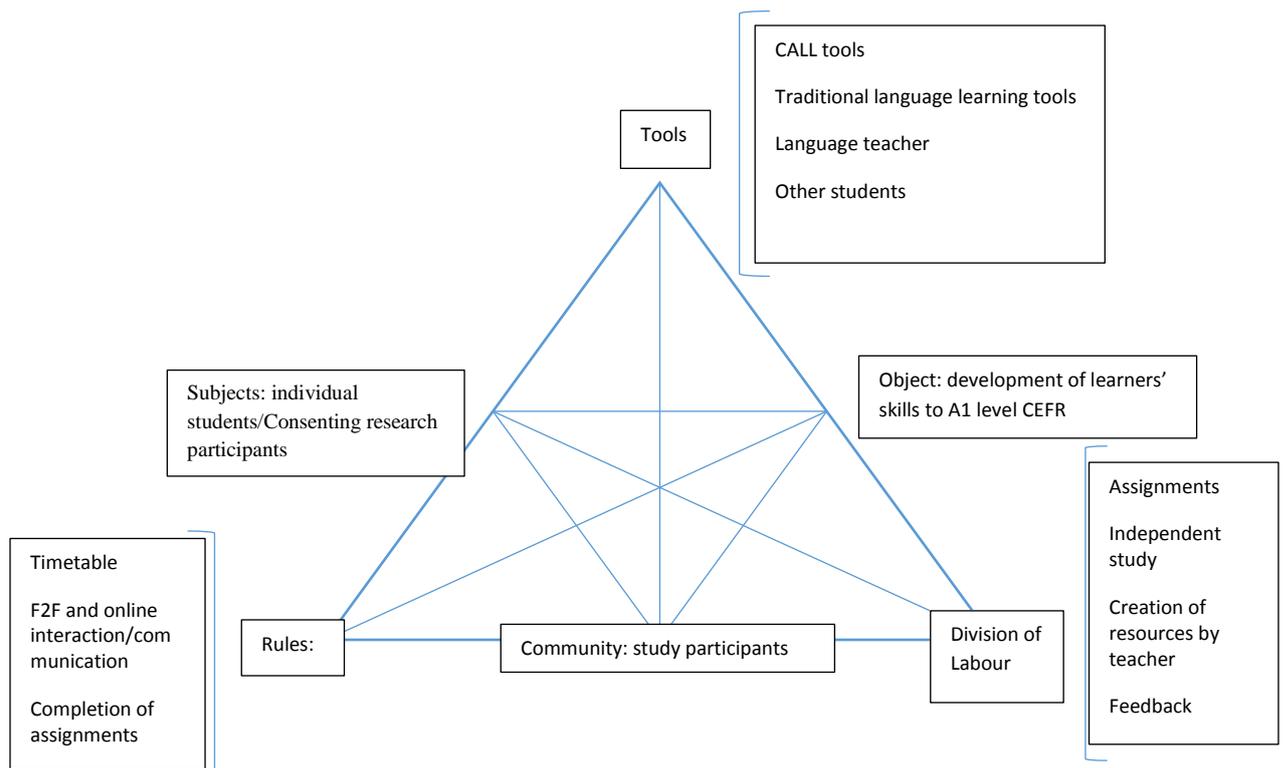


Figure 5.5 Preliminary representation of activity system associate with Introduction to Irish

5.5 Representation of Interacting Activity Systems at the Macro, Meso, and Micro Levels

In order to illustrate the connectedness and interplay of the activity systems and sub-activity systems in *Introduction to Irish* the author will model one section of the course related to the topic *The Family*. The modelling of this sub-activity system is adapted from recommendations made by Blin and Appel (2011) in their investigation of computer supported collaborative writing. From the perspective of CHAT, the activities and sub-activities which constitute the BL course can be viewed from a macro, meso and micro level perspective. From an institutional macro level point of view, the BL course itself can be seen as one activity. This activity is motivated by the need to give ab initio learners of Irish the basic skills (at an A1 level as defined by the CEFR) to speak and listen to the target language. Additionally, it aimed to equip students with the metacognitive skills to pursue further studies in the language should they wish. There is also a motive to acquaint the learners with techniques for using the CALL tools to enhance their language learning in general. From the meso level perspective of the course teacher, the

language course can be broken down into several sub-activities which focus on the development of two language skills and the acquisition of new vocabulary related to certain topics in the course. These sub-activity systems can then also be broken down further when viewed at the micro level as each mediating artefact can be used in different ways as detailed under the what, how, why and where to Artefacts (See Chapter 3, also Engeström, 2008).

The course's activity system and a selection of sub-activity systems at the meso level are illustrated in Figure 5.6 below according to Engeström's (1987) triangles. The goal of the activity system at the meso level is to for the student to produce a monologue as a part of the course's speaking assignments based on the topic *The Family*. This in turn contributes to the learner's proficiency in using the language for practical communicative purposes related to topics as set out by the CEFR. There are too many potential sub-activity systems which may be generated by the learners, tools and artefacts used in the course to describe in the figure below. Three have been chosen along with the activity system of the face-to-face class to illustrate how the artefacts may be used in different ways to fulfil the stated object; speaking about one's family in Irish.

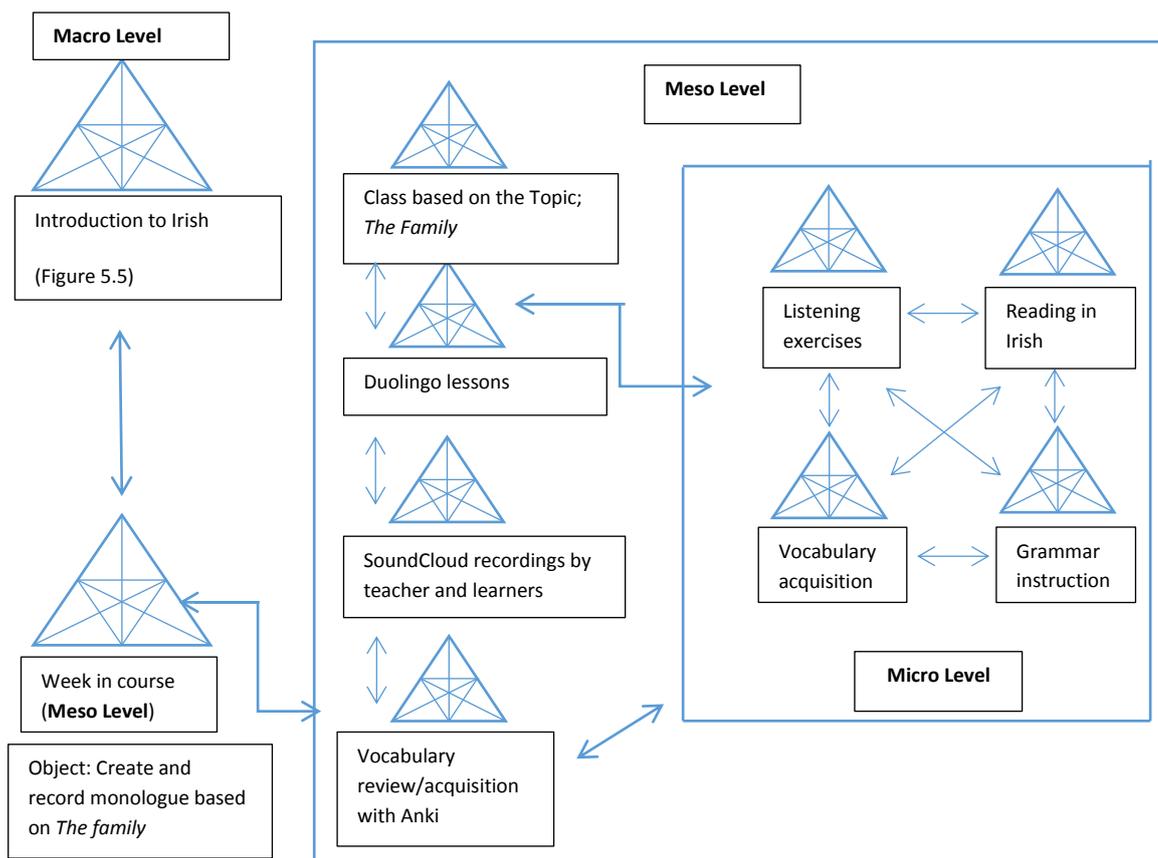


Figure 5.6 Representation of activity system and the sub-activity systems at meso and micro levels

The first triangle represents the physical classroom. This is where the learners and the instructor interact with one another as a group simultaneously. The face-to-face classroom offers the teacher the opportunity to address issues that the learners may have with the course, technologies or the language (Dippe, 2006). Additionally, the face-to-face class gives the teacher the opportunity to focus students' attention on areas of difficulty. It also offers them the opportunity for students to interact with one another in the target language with the support of the teacher. This support is provided through structured speaking exercises such as scaffolded conversations.

The second triangle represents the activity system of the online language learning platform, Duolingo. This triangle is expanded to illustrate the various sub-activities which exist at the micro level within this system. Not all sub-activities are shown here. The arrow leading from the

triangle labelled vocabulary acquisition conveys the connection that a sub-activity at the micro level may have with another activity system at the meso level.

The third triangle represents SoundCloud which is used as an online oral production platform as mentioned above. This sub-activity system is also influenced by other sub-activity systems at the micro level. For example, as new vocabulary is acquired through Duolingo and reviewed in Anki the vocabulary could then be reused in conversations and exercises recorded with SoundCloud. This could then influence production of the language in the physical classroom.

The last triangle represents the intelligent flashcard programme Anki. This programme has a more limited sub-activity system at the micro level, though as has been mentioned it can be used by the learners in numerous ways and it has the potential to affect each other sub-activity systems at the meso level.

As the unit of analysis of this study is the weekly object-orientated activity of the learners over the duration of the BL course's, this representation of the potential sub-activity systems is vital to the identification of tensions and contradictions which emerge and are resolved over the lifetime of the course.

5.6 Coding the data

The data from the student reflective sheets was encoded using the qualitative analysis tool NVivo 11. The reflective sheets produced by the participants were imported into this program and segmented using smaller units that corresponded to pre-established categories based on CHAT. Each segmented unit was assigned a node in NVivo corresponding to the codes created by Blin (2005). Overview of the organisation of the nodes in NVivo can be seen in Figure 5.6.

What tensions and contradictions emerge in a BL course for ab initio language learners.nvp - NVivo Pro

Name	Sources	References	Created On	Created By	Modified On	Modified By
Contradictions		26	214 11/07/2017 14:43	OOD	05/08/2017 13:08	OOD
Level 5		26	138 11/07/2017 14:43	OOD	05/08/2017 13:08	OOD
Level 4		6	12 11/07/2017 14:43	OOD	05/08/2017 13:08	OOD
Level 3		2	2 11/07/2017 14:43	OOD	05/08/2017 13:15	OOD
L3		0	0 11/07/2017 14:43	OOD	05/08/2017 13:08	OOD
Level 2		20	61 11/07/2017 14:43	OOD	05/08/2017 13:08	OOD
Level 1		1	1 11/07/2017 14:43	OOD	05/08/2017 13:08	OOD
Component of activity		26	283 11/07/2017 14:43	OOD	01/08/2017 16:03	OOD
TO2		20	49 11/07/2017 14:43	OOD	05/08/2017 13:16	OOD
TO1		5	6 11/07/2017 14:43	OOD	01/08/2017 16:04	OOD
SU1		15	47 11/07/2017 14:43	OOD	05/08/2017 13:11	OOD
RU1		0	0 11/07/2017 14:43	OOD	01/08/2017 16:03	OOD
OU2		9	10 11/07/2017 14:43	OOD	05/08/2017 13:22	OOD
OU1		17	24 11/07/2017 14:43	OOD	05/08/2017 13:19	OOD
OB3		23	37 11/07/2017 14:43	OOD	05/08/2017 13:17	OOD
OB2		15	25 11/07/2017 14:43	OOD	05/08/2017 13:17	OOD
OB1		16	25 11/07/2017 14:43	OOD	05/08/2017 13:23	OOD
DL2		0	0 11/07/2017 14:43	OOD	31/10/2017 17:43	OOD
DL1		0	0 11/07/2017 14:43	OOD	31/10/2017 17:43	OOD
CO1		8	11 11/07/2017 14:43	OOD	03/08/2017 15:46	OOD
AR2		5	7 11/07/2017 14:43	OOD	05/08/2017 13:18	OOD
AR1		17	42 11/07/2017 14:43	OOD	31/10/2017 13:53	OOD
Action		25	180 11/07/2017 14:43	OOD	01/08/2017 16:03	OOD
Ac2		24	72 11/07/2017 14:43	OOD	05/08/2017 13:14	OOD
AC1		24	108 11/07/2017 14:43	OOD	05/08/2017 13:18	OOD

Figure 5.6 Overview of codes in NVivo.

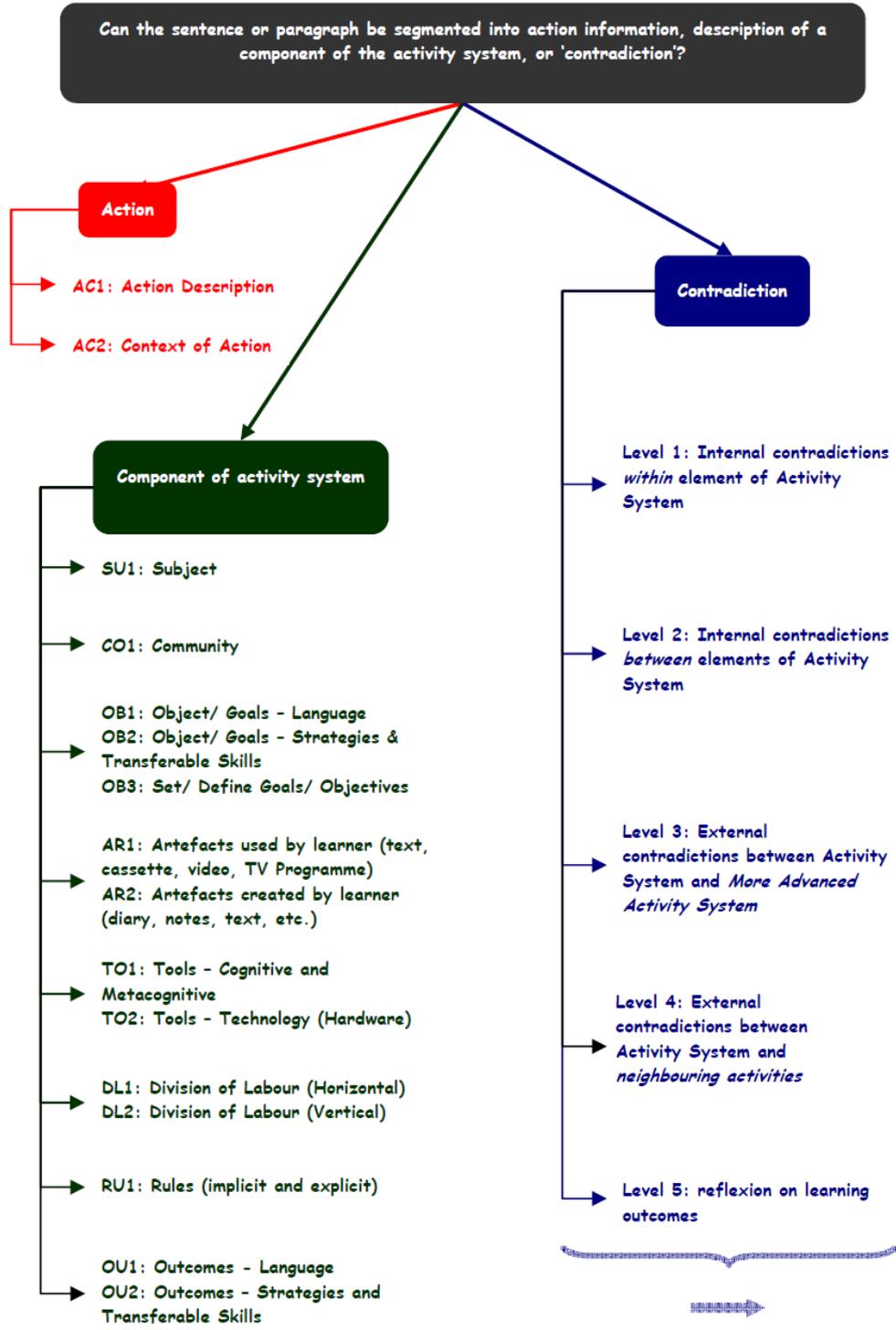
As mentioned previously, only the data from the student reflective sheets were coded. Once each segmented section was coded using the nodes in NVivo the researcher adopted a bottom up approach to data reduction by assigning descriptors to each coded segment in order to organise the data. The descriptors that emerged at this phase were kept succinct (one or two-word tags) in order to facilitate the process of data reduction. According to Miles and Huberman (1994: 10); ‘data reduction refers to the process of selecting, focusing, simplifying, abstracting and transforming the data that appear in written up field notes or transcription’. This is one of the most difficult phases in qualitative analysis according to Reviere (1996), as the data represents real world events, people and places, thus the researcher is more likely to become attached to the data. In order to overcome the wealth of information contained within a qualitative study’s corpus the research question of the study can be used as a focusing lens. Using this study’s research question helped the researcher to ‘select those elements most

critical for answering the research question' (Reviere, 1996: 64). Silverman (2000) asserts that better data analysis is achieved through a steadily more narrow focus.

As mentioned in chapter 4, the CHAT categories used in this study to segment the student reflective sheets were adopted directly from Blin's (2005) study on learner autonomy. Her categories are directly derived from activity theory concepts and principles. Blin (Ibid: 122) explains that;

The activity theoretical pre-determined categories used to segment and tag the texts are divided in three group...: individual or group actions (e.g. reading, watching, noting, choosing, etc.), components of the activity system as seen from the point of view of students (i.e. subject, object, community, tools and artefacts, rules, and division of labour), and emerging contradictions (i.e. identifiable relationships between elements of the activity system, disturbances or breakdowns).

These groups are illustrated in Blin's categories provided in Figure 5.7 below.



Can the sentence or paragraph be segmented into action information, description of a component of the activity system or contradiction (positive or negative)?

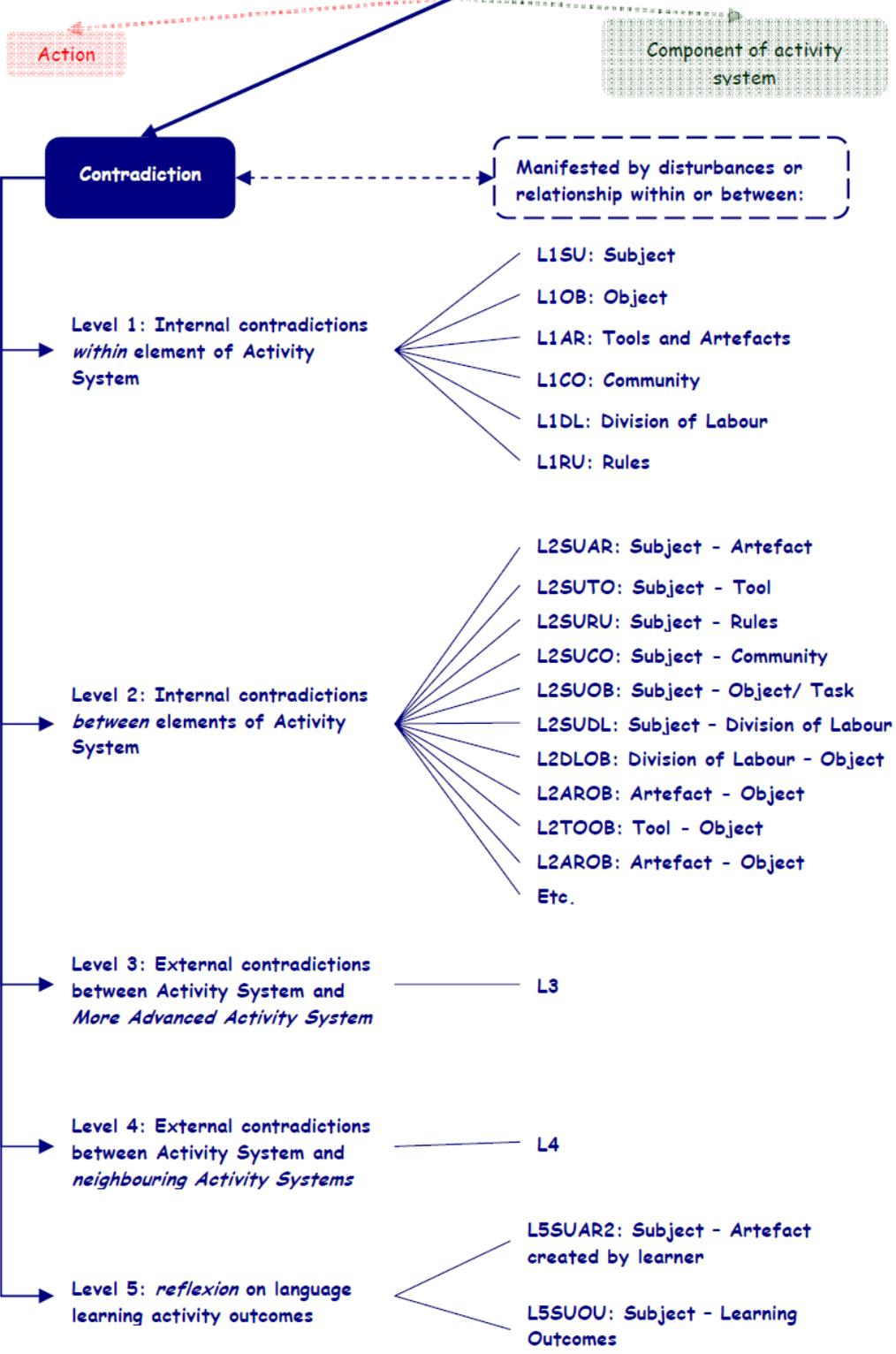


Figure 5.7: Blin CHAT categories and codes (Blin, 2005)

It is important to note that the codes relating to contradictions can denote both positive and negative reactions. In order to illustrate these contradictions please see the coded extract taken from a reflective sheet for week 1 in Figure 5.8 below. The tagged segment has been displayed using Word instead of NVivo for the benefit of the reader.

<p>1. Please state the language challenges and goals you had this period:</p> <p>< L2SUOB1> I'm also having trouble imagining how certain words sound and the general cadence of the language. < /L2SUOB1> orthography</p> <p>2. What resources did you use to overcome these challenges and to pursue these goals?</p> <p><L2SUAR>I listened to the recordings from Oisin and they were helpful < /L2SUAR> useful</p>
--

Figure 5.8. Extract from reflective sheet, Learner 1, week 1

The tags L2SUOB1 illustrate the learner's negative reaction to objectives that the learner has defined herself. L2SUOB1 denotes the subject's reaction towards the task of learning to pronounce Irish orthography. L2SUAR denotes the subject's positive reaction towards the use of an artefact classifying it as helpful.

The fifth level of contradiction as seen above was created by Blin (2005) to capture learners' positive and negative reflections on the outcomes of their language learning activity. Although not part of the four levels of contradiction identified by Engeström (1987) the researcher maintained the fifth level in order to capture student reflections on learning outcomes. Additionally, another code was created to capture the learner's reflection on the use of tools and artefacts in the blended learning environment that were either created by the teacher or by a third party and subsequently blended into the course.

In order to maintain consistent and accurate coding and segmentation of the data the researcher undertook the following protocol.

1. The researcher immersed himself as far as possible in the coded data that was provided by Blin (2005) in her study.
2. The researcher then noted the application of the Blin's (2005) tags and codes.
3. Following this the researcher then selected a sample of student reflective sheets to establish a reference for the use of the codes. This sample consisted of all the first week's reflective sheets that were received.
4. The researcher further refined his understanding of the tags through additional comparisons with Blin's tagged data and the researcher's notes on coding segments using the qualitative analysis programme, NVivo. These were consulted when the coding of certain segments proved difficult. The segmentation and coding process became increasingly easier the more that the researcher interacted with the data.

As mentioned in Section 4.4, during this phase of the research design the researcher met with Prof. Françoise Blin several times in order to receive feedback and advice regarding the application of codes to this study's data. Her input was invaluable to the researcher in applying the CHAT-based codes to the students' reflective sheets.

As the researcher predominately worked alone during this period he deemed it prudent to report and make reference to his data using the tags and the codes (see Chapter 6). This is done with the aim of improving the coded data's validity in the eyes of the reader and the study's trustworthiness in general. The researcher will provide additional clarification as to particular choices he made to code and tag the data during Phase 4 of the research design, in the discussion of the empirical analysis in Chapter 6.

5.7 Summary

This chapter described the context of the activity system under study as well as the subjects which co-constructed the blended learning environment. The object of the activity system was defined as well as the other elements that were designed as part of the course's activity system.

Following this, a representation of the activity system under study was provided to the reader along with a breakdown of sub-activity systems within the BL course. Leading on from this, the researcher then discussed the methods and procedures he followed in order to conclude his empirical analysis. Chapter 6 presents the findings of this empirical analysis which focused on the identification of contradictions in the *Introduction to Irish BLL* course.

Chapter 6 Empirical analysis 2: identifying contradictions

This penultimate chapter concludes the study's empirical analysis. This chapter illustrates how contradictions emerged at various levels within the activity system and between interacting sub-activity systems. Contradictions emerged as the learning objects of the individual students' evolved. The evolution of students' objects was triggered by the course's expansive learning cycles which led to participants identifying new learning objects in relation to more specific elements of the Irish language and the strategies for acquiring and using the language. Contradictions manifested as historically accumulating tensions, positive relationships between components of the activity system and internal tensions within the activity systems. Contradictions also emerged as the larger social context of the study changed.

In order to fulfil the methodological requirement of the study outlined in Chapter 4, specifically in Section 4.3, this chapter begins by providing the reader with an overview of the different categories of codes used to identify components of the activity system within the student reflection sheets. These categories served to direct the researcher's investigation of contradictions within the data as captured by the other research instruments, such as; the researcher's observation sheets and the group interview, as described in Chapter 4 and Chapter 5. Based on the actions identified within the activity system, the context of those actions and the identification of the different components within the various sub-activity systems, the researcher is able to model and provide a macro-level triangulated representation of *Introduction to Irish* (see Section 6.3). This model facilitated the identification and discussion of contradictions identified within the student reflective sheets. These contradictions manifested at various levels within the activity system of the course and are discussed in detail in Section 6.4.

6.1. Overview of student reflective sheets and interviews

As stated in Chapter 4, the student reflective sheets were used to gain insight into the weekly actions taken by the participants over the duration of the *blended language learning* (BLL)

course. The reflective sheets were also used to uncover the various elements that constituted the course's weekly sub-activity systems from the students' perspectives. The researcher used tags or descriptors to reduce the information contained in each segment into more manageable items for further analysis.

The data contained in the student reflective sheets was coded using the qualitative research software; NVivo 11. The program functioned to enable the researcher to organise and code data, and later tag coded sections. This was accomplished with the aid of the software's report generation function. Additionally, the software was used to generate a frequency and percentage list for each code used in the study. Table 6.1 provides a complete list of codes used and the number of segments per category for every student reflective sheet returned to the researcher during the study.

The table shows that 26.59% (Total 1) of coded segments described the actions taken by the participants. 41.80% (Total 2) of the total number of segments related to the different elements that constituted the activity system. The remaining 31% (Total 3) of segments provides information relating to contradictions, relationship or disturbances between those components identified in Group 2. Total 3 also includes student's reflections on artefact use and on learning outcomes.

Table 6.1 List of Codes and number of segments per category for student reflective sheets

Segment Category	Frequency	Percentage
Group 1 (Actions)		
AC1- Action Description	97	57.39%
AC2- Context of Action	72	42.61%
Total 1	169	25.37%
Group 2 (Description of Activity System Components)		
TO2- Tools (Hardware or software)	49	17.31%
SU1- Subject	47	16.61%
AR1- Artefacts used by learners	42	14.84%
OB3- Object/Goals (Define Goals or Objects)	37	13.07%
OB2- Object/Goal (Strategies and Transferable Skills)	25	8.83%
OB1- Object/Goals (Language)	25	8.83%
OU1- Outcome (Language)	24	8.48%
CO1- Community	11	3.89%
OU2- Outcome (Strategies and Transferable Skills)	10	3.53%
AR2- Artefacts created by learners	7	2.47%
TO1- Tools (Cognitive and metacognitive)	6	2.12%
Total 2	283	42.49%
Group 3 (Disturbances, Relationships and Contradictions)		
L5SUOU1- (Subject - Outcomes)	101	47.20%
L5SUAR1- (Subject's reflection on artefact)	35	16.36%
L5SUAR2- (Subject - Learner constructed artefact)	3	1.40%
L4- External Contradictions (Between neighbouring activities)	12	5.61%
L3- External Contradictions (Between 'new' activity and residue of 'old' one)	2	0.93%
L2TOOB- (Tool - Object)	13	6.07%
L2SUTO- (Subject - Tool)	7	3.27%
L2SURU- (Subject - Rules)	2	0.93%
L2SUOB1- (Subject - Object)	14	6.54%
L2SUOB2- (Subject - Object)	1	0.47%
L2SUDL2- (Subject - Division of Labour, vertical)	1	0.47%
L2SUDL1- (Subject - Division of Labour, horizontal)	1	0.47%
L2SUCO- (Subject - Community)	16	7.48%
L2SUAR- (Subject - Artefact)	4	1.87%
L2AROB- (Artefact - Object)	2	0.93%
Total 3	214	32.13%
Total number of segments	666	100%

Each of these categories will be discussed in turn below.

Group 1: Actions

Group 1 provides information on participants' actions and the context for those actions. The most frequently occurring category in Group 1 was the *action description* category with 60% of the total usage for the entire category. Based on the limited overview provided in Table 6.1 of Group 1, it is hard to determine anything related to the students' actions without delving deeper into the data. The Student's actions are discussed more indepthly in Section 6.2.

Group 2: Description of Activity System Components

Group 2 represents the largest group of codes used in the study. This group identifies the categories related to elements that comprised the *Introduction to Irish's* various activity systems. The most frequently occurring category in Group 2 was the course's tools. Examples of these tools include language learning apps such as Duolingo, Anki intelligent flashcards and the course's virtual learning environment (VLE). The second largest group relates to the subjects themselves. The third largest group (AR1) relates to artefacts used by the learners such as handouts from the teacher. By combining the frequency of the codes for AR2 and AR1 (Digital artefacts producer by learner), TO1 and TO2 (cognitive and metacognitive tools⁸) the blend between traditional and digital learning technologies can be determined. The blend of *Introduction to Irish* is illustrated in Table 6.2 below:

Table 6.2 Blend for Introduction to Irish

Total number of segments for tools (TO1, TO2) and artefacts (AR1, AR2): 104	Percentage of total for AR1 and AR2 (online/technology portion): 47%	Percentage of total for TO1 and TO2 (traditional portion): 53%
---	--	--

⁸ Metacognitive tools in the course helped the participants to reflect on their approaches to language learning in order to refine their actions in pursuit of their learning objects.

The table shows that the balance of the course's blend between traditional and more modern technological interventions were relatively equal. This is perhaps due to the participants' relative lack of experience of a BLL environment as noted in Section 5.3.1. Artefacts and tools used over the duration of the BLL course are discussed in more detail in Section 6.1.3.

The second most frequently occurring code in this group is SU1 (Subjects in the activity system). The coding summary by node report: Group 2, in Appendix S, shows that 'I' and 'me' formed the bulk of the words that were coded for this category. This suggests that the participants recognised their role and the actions they took in the learning process over the duration of the course. It also suggests that the students predominantly focused on independent learning. This is also supported by a lack of reference to the components related to the course's horizontal division of labour (DOL) (discussed further below) and the relatively low percentage of codes relating to the community (CO1).

Codes relating to the participant's objects or goals (OB1, OB2, OB3) and their outcomes (OU1, OU2) form the bulk of the remaining codes for Group 2. Taken together these codes constitute 121 segments or 42% of the total codes for this group. OB3 is the most frequently occurring code here. OB3 refers to defined goals or objects identified by the learner such as learning a particular grammar rule or set of vocabulary. The frequency of this codes suggest students were conscious of their own learning objects from week to week in relation to specific tasks. OB1 and OB2 occur with equal frequency. OB1 relates to language learning objects and OB2 relates to transferable skill. This suggests that students pursued the development of learning strategies and transferable skills as well as more general language skills. This is possibly as a result of the introduction of new pedagogical approaches using new technologies embedded in the course. Additionally, the uniqueness of the Irish language itself may have influenced the participants' objects.

The participants Orthography and pronunciations were mentioned extensively as objects by the students for example. Student objects are discussed further in Section 6.1.2. The majority of the outcomes for the participants (OU1, OU2) relate to language learning outcomes. This finding is in line with the participants reported motivations for learning a new language reported in Section 5.3.1. It is possible that there was less reporting of outcomes relating to transferable skills as this was not an objective mentioned by any participant when questioned about their motivations for taking the course. Objects and outcomes from the students' perspectives are further discussed in Section 6.1.2.

In conclusion of the discussion of Group 2, the researcher would like to note the absence of code RU1 and DL1. RU1 refers to implicit and explicit rules within the activity system, while DL1 refers to the DOL within the course. The DOL defines student and teacher tasks. The implicit and explicit rules of the language course are detailed in Section 5.3.9. The absence of this code is not surprising when one considers the size of the corpus of student reflective sheets (see Section 5.6). Additionally, as the rules were explained to the students prior to the beginning of the course in the orientation and informed consent session, all participants were aware of explicit rules governing the course. Moreover, these rules also impacted on the course's DOL or the weekly tasks that were required of the students. The researcher's observations (Appendix Q) of the students' activity online and in the classroom show that students did adhere to the rules and DOL set out in the course at the beginning. The researcher notes that contradictions begin to emerge as the course progressed due to a breakdown in these rules and DOL. This was predominately impacted by external pressures that manifested as Level 4 contradictions. These contradictions are discussed further in Section 6.4 below.

Group 3 (Disturbances, Relationships and Contradictions)

Finally, Group 3 identifies the contradictions manifested as disturbances and relationships that emerged between elements of the activity system as recorded by the participants in their

reflective sheets. The contradictions are grouped according to their level (See Section 4.7.1) The most frequently occurring codes in this group relate to students' reflections on learning outcomes (Level 5). Students' reactions towards their learning outcomes (L5SUOU1) and reflections on artefact and tool use (L5SUAR1) are identified here, as are their reflections on learner constructed artefacts (L5SUAR2). It is important to remind the reader that the code L5SUAR1 was added by the researcher to the CHAT-based coding scheme adopted from Blin's (2005) coding scheme, specifically to capture students' reflections on the artefacts and tools they used. Level 1 contradictions are also captured in these reflections. This is one of the reasons for the non-occurrence of the L1 code (Contradictions are discussed more indepthly in Section 6.4).

The second most frequent category in Group 3 relates to student's reactions to relations between various components in the activity system (Level 2). This category represents 22.43% of the total codes that were applied to the student reflective sheets. The remaining codes relate to external contradiction between new and old activity systems (Level 3) and between neighbouring activity systems (Level 4). The frequency for each codes allows us to summarize the prominence with which certain elements within the activity system featured in the students' reflections. There is a relatively low frequency of occurrence for items related to the DOL or strategies and transferable skills as objectives. Conversely, there is a high frequency for codes concerning students' reflections on learning outcomes and their reflections on the artefacts or tools they used. This suggests that within the activity system tools and artefacts that were included in the course's design played a central role in mediating subjects' object-orientated activities.

One important consideration here is the influence the layout of the student reflective sheets (Appendix P) had on the type of data that was collected. As can be seen in Section 4.5.5, there is no question included in the reflective sheet that specifically relates to the rules or the DOL. It

is important to highlight to the reader that the completion of the reflective sheets was in itself evidence of adherence to the rules of the BLL course and this study. Additionally, it is also an example of a vertical DOL as it is a task that was dictated by the teacher. This could not be coded for but is taken into account in the researcher's observation sheets.

Methodologically, the layout of the reflective sheets maintained the voice of the participant in the research process and is accounted for in the modelling of the course's activity system. This points to the value of using Blin's CHAT-based coding scheme for uncovering the multiple perspectives that may constitute an activity system.

6.1.1 Tagging process

In order to model the activity system as reported by the students in their reflective sheets, it was necessary to examine the encoded segments in further detail. In order to facilitate this process the researcher engaged in a bottom up approach similar to the approach Blin (2005) used to organise coded segments in her CHAT study. Tags which provided concise descriptions were created and applied to coded segments as they were needed, as mentioned in Section 5.7. This data reduction process enabled the researcher to identify patterns themes and common traits between elements within the data (Silverman, 2013, Miles and Huberman, 1994). The tagging process is discussed in more detail below.

The tagging process began with a manual review of each report generated for each code using NVivo 11. During this review the researcher noted commonly occurring themes among the coded segments. These segments were then tagged by the researcher. The tags were reviewed for accuracy and consistency in the second phase of the tagging process. This second phase involved the final tagging and extraction of coded segments for further analysis. During this phase the researcher considered the appropriateness of each tag for each segment and whether the segment needed to be divided further between additional tags. Additionally, tagged segments were compared against each other to ensure the consistent application of these descriptors. The extracted segments were grouped together using Microsoft Excel. The

researcher found this method to be efficient in combining large groups of text together from different data sets into one place. Examples of tagged segments for students' learning objects can be seen in Appendix T. The students' various learning objectives and outcomes will be discussed in Section 6.1.2.

6.1.2 Subjects' learning objectives and outcomes

Objects

Identifying the objects held by the students during the course is a natural place to start to examine the language course's activity system. Understanding the students' objects is essential if we are to understand their actions and motivations. Kaptelinin (2015: 7) states:

that all human activities are directed toward their objects and are differentiated from one another by their respective objects. Objects motivate and direct activities, around them activities are coordinated, and in them activities are crystallized when the activities are complete. Analysis of objects is therefore a necessary requirement for understanding human activities, both individual and collective ones.

Additionally, Leontiev (1978) posits that there is no such thing as objectless activity. Moreover, he asserts that even though an activity may seem not to have an object, the investigation of objects is a necessary first step in a scientific investigation of an activity system.

The full list of tags for segments coded OB1 (Object – Language), OB2 (Object – Strategies and Transferable skills), OB3 (Defined Goals/Objectives) can be seen in tab Table 6.3 below. The table also gives the total frequency of each tag used for coded segments related to student objects.

Table 6.3 Tags for all object categories (OB1, OB2, OB3)

Tags	Total frequency per tag
Pronunciation and Speaking skill/Communication in the L2	23
Revision	20
Grammar	10
Course objectives	9
Orthography	8
General language goals and strategies	8
Metacognitive strategies	7
Aural Comprehension	2

Table 6.4 (below) provides the reader with a temporal overview of the learning objects the students held over the duration of the course.

Table 6.4 Frequency of tags for all object categories (OB1, OB2, OB3) per week

OB1: Object - Language	wk1	wk2	wk3	wk4	wk5	Frequency per tag
Course Objectives	2	2				4
General language goals and strategies	2		2			4
Aural Comprehension	1					1
Orthography	1					1
Pronunciation	2	2	4	2	1	11
Revision	1	2	1	1	1	6
OB2: Object - Strategies and Transferable skills	wk1	wk2	wk3	wk4	wk5	
Pronunciation	1	2	1	1		5
Metacognitive strategies	3	2	1		1	7
Revision	1	1	3			5
General language goals and strategies	2	1	1			4
Grammar		1	1			2
Ob3: Object -Defined Goals and Objectives	wk1	wk2	wk3	wk4	wk5	
Pronunciation		1	2		1	4
Revision	3	3	3			9
Orthography	4	1	1	1		7
Speaking skill/Communication in the L2	1		2			3
Course Objectives		2	3			5
Grammar		6	1		1	8
Aural comprehension			1			1

Table 6.3 shows that students' objects began to change from objectives related to the language generally (OB1) to more specific objectives related to components of the language and the course from Week 1 to 3. Objects related to transferable skills and strategies (OB3) remain constant where data is available. Kaptelinin et al.'s (1995) observations that continuous development is central to the evolution of an activity system is evidenced by the overview provided above of the students' evolving weekly objectives. As the course progressed students' objectives became more refined and focused. The change in these objectives is possibly as a result of personal learning outcomes. Outcomes are discussed further in Section 6.1.3.

Tables 6.3 and 6.4 above show that students place a high degree of focus on the improvement of their oral skill development particularly in relation to pronunciation and fluency. The second and third largest groups of tagged segments relate to revision and grammar. These three groups of objectives will be described in detail next, followed by a discussion of the remaining tags.

Pronunciation

The *Pronunciation* tags in OB1 identify students' objectives in relation to the improvement of their pronunciation. The *Pronunciation* tags in OB2 show students' use of strategies and tools to enhance their pronunciation (see Appendix P). The pronunciation tags in OB3 show students' defined goals or objects to develop their oral skills:

Table 6.5 Pronunciation tag and coded segments for OB3

Tag	Coded Segment	Week in course	Learners
OB3- Pronunciation	I really just want to get pronunciation, I want to be able to say the words better.	wk2	L8
OB3- Pronunciation	Pronunciation, removing intonation,	wk2	L9
OB3- Pronunciation	the family members names and pronunciation of them	wk3	L6

Revision

The tag *Revision* refers to the students' intention to engage in some form of study, memorization, practice or 'catch up' activity. An examination of these tagged segments reveals a variety of learning objects. The revision tags in OB1 reveals general learning objectives that the students had from week to week. See Table 6.6 gives an overview of Learner 9's general learning objectives over the duration of the course.

Table 6.6 Tagged OB1 Segments for 'Revision'

Tag	Coded Segment for OB1	Week in course	Learner
Revision	My goals were to practice	wk1	9
Revision	To keep up	wk2	9
Revision	trying to get a better grasp on previous units	wk2	9
Revision	To keep up	wk4	9
Revision	I will try to prevent attrition!	wk5	9

The revision tag in OB2 reveals the objects that students recognised as being important in pursuit of other learning objects such as oral communication (see Table 6.7). The tagged sections here give an insight into the students' understanding of the positive effect that grammar knowledge, pronunciation practice, tool use, and word recollection can have on communication in the target language.

Table 6.7 Tagged OB2 Segments for 'Revision'

Tag	Coded Segment for OB2	Week in course	Learner
Revision	I'm hoping with practice it won't be as difficult to form the words and phrases.	wk1	2
Revision	I'm working to get more comfortable with quicker and more fluid responses	wk2	10
Revision	I need more work with uruh and knowing when the sounds change	wk3	1
Revision	Pronunciation and word recollection	wk3	8
Revision	I have been trying to use the Duolingo course more frequently,	wk3	4

In OB3 coded segments the revision tag reveals students' specific objects in relation to conversation, development of confidence using specific language items, or focusing on improving a particular element of grammar or speech. Table 6.8 provides the reader with an overview of the OB3 segments that were assigned the *Revision* tag.

Table 6.8 Tagged OB3 Segments for 'Revision'

Tag	Coded Segment for OB3	Week in course	Learner
Revision	I want to practice the sheets that we got this week and continue to use the Duolingo app	wk1	L2
Revision	get some confidence with very basic conversation	wk1	L5
Revision	learn vocabulary words, become accustomed to the basic sentence structure.	wk1	L7
Revision	Goal wise, I want to get caught up with everyone	wk2	L2
Revision	I'll be working more with the DuoLingo course and re-reading my paper course materials.	wk2	L1
Revision	get some confidence with very basic conversation	wk2	L5
Revision	will need to review it before week four starts on Tuesday.	wk3	L2
Revision	I want to solidify my understanding of the lexicon and grammar up to this point	wk3	L4
Revision	I still would like to improve and put in practice easily the lenition and eclipses.	wk3	L6

Grammar

Grammar is the third most frequently occurring tag and reveals students' perceptions of its importance in the language acquisition process. This tag occurred most frequently as a defined object or goal (OB3) by students. Segments for OB3 related to grammar can be seen in Table 6.9 below.

Table 6.9 Tagged OB3 Segments for 'grammar'

Tag	Coded Segment	Week in course	Learners
Grammar	the grammar is implemented in the main class sessions.	wk2	L4
Grammar	Rules regarding lenition and eclipsis	wk2	L4
Grammar	I would like to improve and understand more about the lenition and eclipses.	wk2	L6
Grammar	remembering word order in our questions	wk2	L9
Grammar	fuller explanations of lenition and eclipses	wk2	L9
Grammar	I've been trying to understand the lenition and eclipses, as noted above.	wk2	L9
Grammar	continuing to be mindful of eclipse and lenition is what I seem to have focused on this week.	wk3	L4
Grammar	word order in sentences.	wk5	L8

The segments seem to suggest that distinct elements within the Irish language grammar attracted the learners' attention. Rules relating to the use of eclipses and lenition (where the initial sound of a word changes in Irish in various morphosyntactic contexts) along with the language's syntax feature regularly in the objects identified in this group. It should be noted here that Irish syntax differs greatly to most other languages in that it follows a Verb, Subject, Object (VSO) structure as opposed to the usual European language SVO structure. Additionally, lenition and eclipses fulfil a variety of roles in the language. It is not surprising, therefore, that as the students explored the language that their attention would be attracted to these features in the language.

Remaining tags

The remain tags from Table 6.3 and 6.4 will be discussed now. Due to the small amount of information for the remaining tags the researcher will also make reference to his observational notes (see Appendix Q) in the following discussion.

The *Course objective* tag identifies segments where students' own objectives aligned with that of the weekly object of the language course as defined by the teacher (See Section 5.1). The low number of frequency of this tag points to students lack of conscious consideration of the formally stated language goals of the course. The researcher's observation notes do show though that the students' other objectives did align with the week's learning objective as defined by the teacher. This can be seen in the *Object of activity* sections of the observation sheets in Appendix Q.

Segments that related to the language's orthography appear most frequently under OB3. This implies that students began to focus on specific elements of the language's orthography as the course evolved. This again is not surprising as the Irish language's orthographic and phonetic system is substantially different to the participants' native languages. As shown in week one of

the researcher's observation notes (see Appendix Q), orthography forms a part of the first week's *Object of activity*. The observation sheets show that spelling and writing was discussed in subsequent classes such as in relation to the conjugation of verbs in the present tense in weeks four, five and six as documented in the *Actions observed within the activity* sections of the observation sheets. These sections also show evidence for the operationalisation of knowledge related to the Irish orthography as students used their knowledge of slender and broad consonants to aid their group conjugation and writing activities.

The segments tagged *General language goals and strategies* reveal little other than the participant's object to engage in some sort of language learning activity or preparation for a face-to-face class. The *Metacognitive strategies* tag appears only under segments coded with OB2. This tag reveals that participants used their knowledge of other languages and of learning other languages to help them acquire Irish (or some cases to hinder it). This is supported by the researcher's observations from Week 4 in Appendix Q.

The least frequently used tag was *Aural comprehension*. It is interesting to note the low number of segments for this tag as aural input is an important component of the language acquisition process (see Section 2.2, Chapter 2). The low frequency for this tag suggests that participants did not consciously seek to address their aural skill development. The observation sheets show that the object of aural comprehension development was planned for within the course. During the study the teacher used recordings in class from *Gaeilge Gan Stró*. The teacher also provided listening material via the course's VLE. Additionally, the multimodal nature (audio-visual input) of the CALL tools such as Anki, Abair.ie and the Duolingo App (see Section 5.3.2) provided the participants with additional input for aural comprehension development. The tools and artefacts that were used by the students in pursuit of the objects above are described in more detail in Section 6.1.4. The students' learning outcomes as are examined next.

6.1.3 Learning outcomes

Segments coded *Outcome – language* (OU1) and *Outcome – strategies and transferable skills* (OU2) are discussed now in the context of the various objects identified above. The tagging process for these segments was similar to the tagging process as described in Section 6.1.2 except that the researcher divided the outcomes into two groups initially. These groups contained segments for either positive or negative learning outcomes. The researcher then examined the outcomes with reference to the students' learning objects. Group 2 in Table 6.1 shows that fewer segments related to learning outcomes than objects identified by the researcher. This possibly points to a contradiction between students' actions and their objects. Students' object-orientated actions will be discussed in more detail in relation to tool and artefact use in Section 6.1.4.

Table 6.10 gives an overview of the different types of learning outcomes that were identified in the student reflective sheets. The table shows that outcomes could be either negative or positive in nature.

Table 6.10 Language learning outcomes

Positive Outcomes			Negative outcomes		
	OU 1 - Positive Language Outcomes	Frequency		OU1 - Negative Language Outcomes	Frequency
Tags denoting positive outcomes:	Aural comprehension	5	Tags denoting negative outcomes:	Pronunciation/speaking skill	7
	Pronunciation/speaking skill	4		Grammar	3
	Revision	4		Aural Comprehension	2
	Grammar	1			
	General positive outcome	1			
	OU2- Positive outcomes for Strategies and transferable skills			OU2 - negative outcomes for Strategies and transferable skills	
	Strategies and transferable skills	1		Strategies and transferable skills	5
	Revision	2		Pronunciation/speaking skill	2
				Revision	1

Tags in the *positive language outcomes* group refer to positive developments in the students' language learning activity in relation to specific areas of the target language. Tags in the *negative language outcomes* group refer to the opposite. Each coded segment and its corresponding tag for positive learning outcomes is provided in Table 6.11.

Table 6.11 Positive Outcomes

Tag for OU1 - Language	Coded Segment	Week	Learner
Aural comprehension	I'm starting to hear patterns	1	1
Aural comprehension	but I understand it when I hear it now.	1	8
Aural comprehension	I can recognize other phrases when they're spoken to me.	1	8
Aural comprehension	I have generally been able to use these phrases	2	7
Aural comprehension	can understand basic words and phrases from TV programs and radio.	3	6
Pronunciation/speaking skill	I was able to learn and improve my pronunciation of the basic conversational phrases.	1	7
Pronunciation/speaking skill	Slightly more fluid conversations	2	10
Pronunciation/speaking skill	Achieve a very basic conversational level	2	10
Pronunciation/speaking skill	talking about my family.	3	7
Revision	it gave me a chance to really go over the personal numbers and family terms.	2	2
Revision	I know basic phrases, a bunch of words,	2	6
Revision	I have generally been able to use these phrases and remember them quickly.	2	7
Revision	but I did complete the present tense unit on Duolingo	3	2
Grammar	The questions of word order as solidifying	3	9
General positive outcome	I can see continuing to learn Irish	5	9
Tags for OU2 – Strategies and transferable skills	Coded Segment	Week	Learner
Strategies and transferable skills	It did give me an opportunity to absorb the information before the fall semester started with my graduate classes and the start of my work busy season.	1	2
Revision	using Duolingo and Anki when I have time.	2	4
Revision	I was able to become comfortable using the new vocabulary	3	7

The positive outcomes show the transition of objects to operations or objects that are in the process of making this transition as a result of the students' actions. Temporally, these

outcomes relate to the topics and objectives of the language courses for that week. With regard to aural and oral skill development we can see that students began to operationalise certain skills. For example, as the weeks progressed students became more and more comfortable using the target language covered in the initial weeks of the course. Their knowledge of earlier topics consolidated and operationalised in later weeks of the course.

One example of operationalisation is taken from student reflective sheet Week 3, Learner 9:

So I've made myself some charts for the combinations of vowels and consonants and looked up 'tricks' for pronunciation. The questions of word order is solidifying and I'm grateful that present tense conjugations are rather straightforward.

The example also references artefact creation in the pursuit of the language learning activity (an activity that did not occur frequently in the course).

The understanding of the process of the operationalisation of conscious goals or skills is discussed in Section 3.1.4. This section described how unconscious operations may become conscious objects again as an activity system evolves (Engeström, 2008). Section 3.1.4 also highlights Nardi's (1996b) assertion that the changes objects undergo do not happen on a moment-to-moment basis.

The negative outcomes identified in Table 6.12 below show certain issues persisted in the course's activity system. When these negative outcomes are compared with the participants' objects (see Section 6.1.2) we can see that the negative outcomes influenced these objects as the course progressed.

Table 6.12 Negative outcomes

Outcome – Language (OU1) tags	Coded segment	Week	Learner
Pronunciation/speaking skill	I have not really overcome the challenge above yet.	1	5
Pronunciation/speaking skill	I don't trust my pronunciation	1	8
Pronunciation/speaking skill	I missed a good bit of the pronunciations for the family and personal numbers documents.	2	2
Pronunciation/speaking skill	I'm still having trouble working out pronunciation	2	7
Pronunciation/speaking skill	To work to express myself	2	10
Pronunciation/ speaking skill	I don't know how to say the words	5	8
Pronunciation/speaking skill	Pronunciation in Irish will never be my friend.	5	9
Grammar	I haven't figured out when to use direct objects or not.	2	10
Grammar	I struggle to understand the sentence structure	3	10
Grammar	Lenition and eclipsing will never be my friends.	5	9
Aural Comprehension	I struggle to understand the sentence structure and expressions.	3	10
Aural Comprehension	To work to express myself and understand others.	2	10
Outcome – strategies and transferable skills (OU2) Tags	Coded Segment	Week	Learner
Transferable skills and strategies	Still uncertain about pronunciation from reading text.	1	5
Transferable skills and strategies	And hearing what I understand but then forgetting how to reply.	1	9
Transferable skills and strategies	I'm still struggling with some of the basic phrases and not understanding the literal meaning of words.	1	10
Transferable skills and strategies	I am still looking for actions to outcome this.	2	6
Transferable skills and strategies	but seem to be caught up now	3	10
Pronunciation/speaking skill	then forgetting how to reply	1	9
Pronunciation/speaking skill	that I still need to look at the sheet before saying them	2	6
Revision	but haven't had a chance to use it much	2	2

When the negative outcomes are compared to the learning objectives (see Table 6.3 and 6.4)

that reoccur during the course we can see that there is a relationship between the two. For

example, the majority of the negative outcomes identified relate to the tag *Pronunciation/*

Speaking skill. When compared with Table 6.4, pronunciation and the speaking skill were held as objects by the participants continuously throughout the course. This points to a relationship (contradiction) between stated areas of difficulties for the subjects and further learning objectives. Contradiction, relationships and disturbances within the activity system will be discussed further in Section 6.4. Finally, the negative outcomes when contrasted with the positive illustrates how certain members within the group acquired certain areas of the language more speedily than others.

For example, Table 6.11, Learner 9 states that her understanding or rather her confidence related to Irish syntax is ‘solidifying’, yet is not so positive when reflecting on her understanding of other grammar rules in Table 6.12.

Lenition and eclipsing will never be my friends.

Learner 9, Week 5

The next section examines the tools and artefacts the participants used to pursue their learning objects. This section also examines which tools and artefacts lead to either positive or negative outcomes. As stated in Chapter 3, all human activity is motivated by the pursuit of a goal (object) and this activity is mediated by artefacts, tools or signs (Vygotsky, 1978). Exploring the coded segments related to *cognitive and metacognitive tools* (TO1), *technology* (such as: laptops, apps, phones) - (TO2), *artefacts used by the learner* (AR1) and *artefacts created by the learner* (AR2) is a logical place to investigate next in order to model the activity system of the course.

6.1.4 Tools and artefacts

Using Blin’s (2005) coding scheme the researcher was able to identify the mediating tools and artefacts that students used or created in the pursuit of the learning objectives identified above. The coded segments show that the students used various tools and artefacts over the duration of the language course. Table 6.13 gives an overview of the tags that were used to organise the coded segments for further analysis and the total frequency for each tag.

Table 6.13 Students' artefacts and tools

Tags	Tag frequency
Artefacts used by the learners (AR1)	
Sound recordings from the teacher	10
Handouts from teacher	14
VLE/LMS	4
Other Artefacts	5
General reference to artefacts used	6
Artefacts created by the learner (AR2)	
	Tag frequency
Audio recording from student	3
Written artefact created by learner	2
Charts/Notes	2
Tools - online tools (TO2)	
	Tag frequency
Duolingo	31
Abair	8
Anki	6
Other online tools	8
Tools - cognitive and metacognitive Strategies (TO1)	
	Tag frequency
Other languages	3
VLE	1

Table 6.13 above shows that the most frequently identified tools and artefacts were those grouped into *artefacts used by the learner (AR1)* or *online tools (TO2)*. The table shows that artefacts from the teacher, such as handouts and sound recordings, were the most frequently identified artefacts. The learning management system was used by students to access course

materials that were distributed in class or to identify future areas of study. The other artefacts that were identified are television, music, Oppia grammar explorations and Wiktionary.com. TO1 shows that there was little use of metacognitive tools beyond using other languages known to the students.

The most frequently identified tool across all student reflective sheets was the Duolingo platform. The remaining tools that were identified are Abair.ie (text to speech synthesiser for Irish), Anki (intelligent flash cards) and a smaller number of other online tools that have been grouped together above. The other tools that were identified are; Mango and Nemo (apps similar to Duolingo), online Irish language dictionaries (foclóir.ie), the internet and Google translate. These latter tools were only mentioned once by students in their reflective sheets.

The category, *artefacts created by the learner* (AR2), identifies the relatively few artefacts that were created by the learners as mentioned in the reflective sheets. The low number of tags for AR2 segments does not, however, reflect the true number of artefacts produced by the students. Students produced a combined total of 17 recorded speaking practices for three different exercises over the duration of the course using SoundCloud. This number is significantly lower than the 30 recordings that the teacher expected to receive at the beginning of the course. Unfortunately, certain students dropped out as already mentioned in Chapter 5 and other students simply did not submit their recordings. This was a particular problem with the third speaking exercise or assignment at the end of the course. Finally, one student (Learner 1) could not get the SoundCloud app to work on any of her devices (iPhone, Surface or Desktop PC). These issues potentially point to contradictions in the activity system and will be discussed further in Section 6.4. Table 6.14 shows the number of student recordings for each speaking exercise.

Table 6.14 Breakdown of recorded exercises submitted to the teacher

	Speaking Exercise 1 (Week 1-2)	Speaking Exercise 2 (Week 3-4)	Speaking Exercise 3 (Week 4-5)
Number of recordings received:	7	7	3

The small number of recordings received may also be reflective of the students' object prioritisation in the course. As the course was not for credit it was ultimately up to the learner to produce content to complete assignments from the teacher. As there was not an incentive (other than that of the pursuit of knowledge) or negative consequence for non-submission of a recording, the task was perhaps not a high priority for the students in the scheme of the course. This again potentially points to Level 4 contradictions, and Level 2 contradictions between the students and the course's rules and the division of labour.

The emergence of one tool one week and its disappearance in another only to re-emerge again suggests that the tools or artefacts played a specific role in the pursuit of a particular learning object. Table 5.15 shows how frequently artefacts or tools were cited by the students from week to week.

Table 6.15 Use of artefacts and tools from week to week

AR1: Artefacts used by the learners	wk1	wk2	wk3	wk4	wk5
Sound Recordings from the teacher	7	2	1		
Handouts from teacher	10	1	2		1
Learning Management System	1	3			
Other Artefacts		2	3		
General Reference to artefacts used in previous week			5	1	
AR2: Artefacts created by the learner	wk1	wk2	wk3	wk4	wk5
Audio recording		1	2		
Written artefact created by learner			1		
Charts/Notes			1		2
TO2: Tools	wk1	wk2	wk3	wk4	wk5
Duolingo	17	6	6		2
Abair	3	1	3		1
Anki	1	4	1		
Other online tools	1	1	6		
TO1 : Cognitive and metacognitive tools	wk1	wk2	wk3	wk4	wk5
Other languages	3				
VLE	1				
Duolingo	1				

Section 3.2 describes how mediating artefacts can be organised into four different categories; *what, how, why and where artefacts* (Engeström, 2008). Additionally, this section stated that mediating artefacts are not fixed within these categories. Their categorisation is ultimately determined by the use of the mediating artefact by a subject in the object-orientated actions. We can see evidence of this in the table above. Within AR2, artefacts are can be classified as all four types of artefacts. For example, the handouts and sound recordings can be seen to function to guide and direct processes within and between objects (*how* artefact). The handouts can also function to diagnose or explain elements of the object (*why* artefact) while the sound recordings can function to help the learner envision a future state of the object (*where* artefact).

Blin (2005) states that tools and artefacts possess a dual characteristic in that:

...they mediate the overall collective language learning activity while being the focus of individual actions for a limited period of time.

(Ibid: 141)

Following from the discussion of the artefacts and tools identified in the student reflective sheets the next section will discuss students' actions within the language course. Actions in relation to tool and artefact use will also be examined as will the context of those actions.

6.2 Actions, artefact mediation and context

A central tenet of CHAT is that all actions are mediated by physical or semiotic artefacts or tools and that rules and division of labour impact on these actions (Chapter 3). These actions, as mentioned are part of object-orientated activity which leads to certain outcomes. Outcomes are therefore the results of the transformation of the object of the activity through individual and community actions (Blin, 2005: 140). Having discussed the primary elements of the activity system above (Objects, Outcomes, Tools and Artefacts), it is now possible to examine the actions that students took independently and as a part of the community of learners (the class) during the course. Additionally, it is now appropriate to identify the actions students took with mediating tools and artefacts and the context for these actions.

The code *artefacts used by the learner* (AC1) was applied to the students' reflective sheets in order to identify the various actions that formed the course's overall activity from the students' point of view. Using NVivo 11, the researcher was able to tag coded segments to further analyse the specific actions that constituted the students' language learning activity.

Table 6.16 Subjects' object-orientated actions

Actions:	Revision/Practice/Memorising	28
	Speaking	20
	Listening	18
	General technology use	14
	Reading	5
	Writing	4
	Discussing/Asking	3
	Going to class	2
	Sharing	1
	Making	1

The most commonly occurring actions are that of revision, speaking, listening and the general use of technology. Each of these action descriptors will be discussed below with reference to the student reflective sheets. The mediating artefacts related to these descriptors will also be discussed as will the context for these actions using the information identified with code *context of action* (AC2).

6.2.1 Revision

The *revision* tag is used here to refer to actions the students took to review, or to study topics/material covered either in class or in the VLE. The tag also identifies when students sought to practice elements of the language such as pronunciation and committing phrases or vocabulary to memory. Examples of actions taken here are app use to review previously covered topics or specific elements in the language. The following extracts are examples of this;

the soundcloud files were helpful for remembering the phrases from class.

Learner 4, Week 1

I had my Duolingo streak up to 12 days this week, but the weekend caught up to me. I like that it notifies me to keep practicing.

Learner 2, Week 3

used Anki to help memorize the phrases.

Learner 7, Week2

I used Anki to memorize the household vocabulary, and Duolingo to practice general skills.

Learner 7, Week 3

Another example of artefact use identified was the use of handouts with other materials to revise the language multimodally, such as; when students read text while listening and pronouncing the words. This was done with the aid of Duolingo or with the combination of handouts and recordings provided to the students by the teacher. The extract below from Learner 2's reflective sheet in Week 1 is an example of this.

It made me realize that actually saying it out loud is what I need more practice at. So I've been reading though the basic phrases and the background sheet outloud. I've also been trying to speak along with the SoundCloud recordings.

Learner 2, Week 1

These actions were taken largely in the pursuit of the students' overall goal of wanting to communicate in the target language. The objects changed as a consequence of students' outcomes and in turn had an effect on the types of objects held by the students in later weeks. Such as becoming more concerned with specific elements of the speaking skill (e.g. pronunciation) or focusing on particular elements of grammar (See Tables 6.6, 6.7, 6.8 above). Importantly, students referenced using every tool and artefact identified above in Section 6.1.4 with the exception of the students speaking assignments. This fact when considered in light of the identified outcomes shows that the tools and artefacts were used for different purposes at different stages of the course.

The code *context of action* (AC2) was used to identify the context of the learner's actions. Segments identified with this code reveal that actions such as revision and practice generally occurred outside of the classroom. These actions were facilitated primarily by the tools Duolingo and Anki. These tools are observed to have contributed to the students' frequency of interaction with the Irish language outside of the classroom.

Practicing on Duolingo everyday has helped me become accustomed to the language quickly and is especially helpful because it keeps Irish on my mind between class periods, so I always feel ready when going to class.

Learner 7, Week 1

I really like having the different resources on my phone. I don't have an excuse to not practice. I took the bus to work the other day and used Duolingo the entire 25min ride, it was great!

Learner 2, Week 2

Practice or revision formed a part of each class. The beginning of each class began with a brief revision exercise based on what had been covered in previous weeks. This exercise would then support and scaffold a following speaking exercise. Learner 7 states in week 1 and 2 that;

Repeated practice in class has helped me respond faster in conversations.

Learner 7, Week 1

I practiced in class

Learner 7, Week 2

Largely, revision actions were taken individually by the students.

I have still been working by myself so far, using Duolingo and Anki when I have time. The Anki deck in particular is very useful.

learner 4, Week 2

I have studied by myself

learner 6, Week 3

Learner 10 and I talk some about things we've discovered or tricks to remember and use vocabulary, pronunciation, etc. Mostly though I worked alone.

Learner 9, Week 4

6.2.2 Speaking

Speaking was the second most frequently occurring action identified in the student reflective sheets. The speaking tag identifies when students used the target language for communicative purposes with others. Actions related to speaking become more numerous later in the reflective

sheets. This was also observed by the researcher as more and more of the class time towards the end of the course was spent speaking the target language. The tag speaking here related to the use of the language with others for communicative purpose related to information about themselves. The teacher engaged the students with speaking tasks and exercises that gave them a real reason to communicate with one another and to transmit information specifically related to them. This also had the result of exposing students to other students' vocabulary.

Contextually, speaking occurred mostly in class. This is supported by the researcher's observations and the segments coded AC2. The following extracts are examples of this:

What I think helps the most though is the first 15min of class where we got up to talk to other people.

Learner 2, Week 1

The large amount of time spent during class speaking with each other has been very helpful in achieving the goal above.

Learner 5, Week 2

As for speaking in class, I am not quite yet able to have a conversation without looking at the paper to remind myself which phrase to respond with.

Learner 7, Week 1

Speaking Irish did occur outside of the classroom over the duration of the course, though not as frequently as in the classroom. The following extracts show speaking outside of the classroom occurred when the students had contact with other members of the class in their daily lives.

I tried to have more Irish conversations with my wife.

Learner 10, Week 2

Spoke the words more, tried to use full sentence answers, spoke Irish with other people outside of just the classroom (but only a little).

Learner 8, Week 3

My manager, Learner 1, is taking the class as well and we practice speaking the few things from class during the day.

Learner 2, Week 1

6.2.3 Listening

Action description (AC1) segments that were given the action descriptor *listening* relate to students listening actions. Interestingly, aural comprehension or the development of the listening skill as noted in Section 6.1 was not frequently identified as an object by the students. The frequency with which the students cited listening to the target language suggests that the participants perceived listening to be important in the development of communicative competencies. Participants appear to regard listening as having an impact on their *Speaking skill and Pronunciation*. This finding is in line with the input hypothesis theory as described in Section 2.1.1., that is; language learners require input from the target language before they are willing or able to speak.

Listening was performed by the students independently outside of the classroom using artefacts such as SoundCloud recordings and apps such as Duolingo as the following extracts from the student reflective sheets show.

I listened to the recordings from Oisin and they were helpful. I also listened to all of the DuoLingo sound bytes.

Learner 1, Week 1

Listening to the audio files online, Duolingo

Learner 8, Week 1

I've been listening to the things that are posted

Learner 8, Week 2

I continue to listen to podcasts and language apps.

Learner 10, Week 2

During the act of listening students would reference using written artefacts to support their learning.

I prefer reading a passage and then listening to it, because then I can 'see' the words as I hear them

Learner 9, Week 3

The observation sheets note that prior to each class students accessed listening materials related to the class's topic. Unsurprisingly, students also listened to the language extensively in the physical classroom.

The classes are a lot of fun and the songs we listened to in class on Friday were very interesting!

Learner 2, Week 2

Learners also made small use of more traditional language learning artefacts, such as television or music, to listen to the target language.

I am starting to try to listen more in Irish by watching TV or listen to musics

Learner 6, Week 2

Finally, with regard to the frequency of the students listening actions using mediating artefacts, the AC2 descriptors reveal that students listened to artefacts such as the recordings from the teacher multiple times.

I listen multiple times to the class recordings of the basic phrases.

Learner 1, Week 1

I have Duolingo repeat the sentence or word many

Learner 2, Week 1

But I also listened to the pronunciations many, many times.

Learner 2, Week 2

Asking for the words to be repeated often.

Learner 8, Week 3

I just ask for words to be repeated often.

Learner 8, Week 4

Repetitious listening is not surprising when one considers how different the Irish language sounds to English, the main mother language of the participants.

Finally, tags related to the listening skill are often followed by artefacts or tools. This suggests that the mediating artefacts exist as direct objects within the activity system in a language learning sense and from a CHAT perspective. The participants repetitious behaviour with these

artefacts suggests that students also held these objects both consciously and unconsciously while elements of the target language became operationalised.

6.2.4 Technology use

Technology was used in each of the actions described above. The tag *technology use* features prominently in students' listening and revision actions. Technology use also featured as a part of the speaking actions though to a smaller degree, such as the creation of recorded monologues. The segments identified with this tag usually refer to once off technology use to solve a particular issue or to overcome a certain problem. The tag also denotes when students downloaded an app or began using a piece of technology but did not associate a particular action to it, such as for revision or for listening. Finally, the tag relates to the exploration of the language or finding out information with specific language elements in mind. The following extract provides an example of this;

One website I tend to use for quick information is Wiktionary. For Irish, it can quickly list the forms and when things become lenited or eclipsed, so it is useful when I'm not sure about something.

Learner 4, Week 3

We can see that the technological tools functioned to assist students in their exploration of the target language. The tools provided support to the students when the teacher was not available and allowed them to develop a certain skill in the target language such as pronunciation.

When I needed to use a new word for my recording, I looked up the pronunciation on Abair.

Learner 7, Week 3

It can also be seen in the reflective sheets that students used tools in combination with one another to overcome a shortcoming of a particular tool, in this case a lack of audio on the Irish language dictionary;

I used the Foclir.ie [foclóir] website a lot and the Abair.ie for the words that didn't have a little mega phone beside them.

Learner 2, Week 3

This extract points to a potential contradiction within the activity system and will be discussed further in Section 6.4.

The *general technology use* tag refers to general reference to technology use such as logging into an app or using Google Translate or the internet to 'look up' something.

When I needed to use a new word for my recording, I looked up the pronunciation on Abair.

Learner 7, Week 3

With regard to the general frequency of use of the learning technologies, the researchers' observation notes and the meta-data from Duolingo Schools and SpeakApps show that students used these learning tools throughout all weeks of the course. As Duolingo is the most commonly identified tool in Section 6.1.4 shows, it is unsurprising that students interacted with this tool multiple times a week sometimes multiple times a day for extended periods of time.

I had my Duolingo streak up to 12 days this week,

Learner 2, Week 3

6.2.5 Remaining action tags

The remaining action tags relate to; *writing, discussion/asking, going to class, uploading, sharing and making*. Contextually, the student reflective sheets show that these actions did not occur regularly or sequentially. These will be discussed now.

The *writing* tag identifies when students used writing as a skill either to record information in the class or in preparation of a speaking assignment. The latter could also be tagged *making* as the action produces an artefact to assist the learner in the process of making a recording.

During class, I tried to write down the words in a way that I could remember to say them

Learner 2, Week 1

Writing the recorded passage about my household was good practice with sentence formation

Learner 7, Week 3

It is also documented in the researcher observation sheets that participants made notes in every class to aid them in a range of other actions such as learning vocabulary (revision) or scaffolding a speaking exercise (speaking).

The tag *Discussing/Asking* identifies when students engaged the teacher in order to resolve a particular issue or to help them overcome a difficulty. For example; these difficulties or issues could relate to problems with the pronunciation of a word or the clarification of a grammar point.

I've been listening to the things that are posted and asking about pronunciation

Learner 8, Week 2

Asking for the word to be repeated more often

Learner 8, Week 2

also I just ask for words to be repeated often.

Learner 8, Week 4

Asking for words to be repeated, discussing pronunciation and grammar rules were a feature of each class as documented in the observation sheets.

The *sharing* tag identified one incident of sharing between the learner and another person.

sharing the findings about Irish language with a friend

Learner 6, Week 3

This action potentially contributed to solidifying the learners' understanding of basic words and phrases. This possibly made the learner more comfortable using the basic words and phrases to communicate in the classroom. The non-occurrence of this tag with regard to artefacts or tools points to the openness and availability of the blended design. All learners had equal access to learning resources included by the teacher in the courses design.

The making of a physical object to assist the language learner in other actions was only identified once in the student reflective sheets. The action of making was orientated towards the object of speaking as the extract shows;

I'm feeling better about how and why of lenition and eclipses but I'm not sure on the pronunciations. So I've made myself some charts for the combinations of vowels and consonants and looked up 'tricks' for pronunciation.

Learner 9, Week 3

This concludes the discussion of the participants' actions as identified in the student reflective sheets. The following section discusses the process of creating a triangulated representation of *Introduction to Irish's* activity system using Engeström's Triangle.

6.3 Triangulated representation of the activity system

Sections 6.1 and 6.2 above presented the various elements that comprised the course's activity system and the actions which constituted the language learning activity. Unfortunately, as already noted in Chapter 5 in the discussion of the student reflective sheets, it is not possible to accurately model the entire activity system due to the smaller number of reflective sheets received by the researcher in the latter half of the course. In order to overcome this challenge, it is necessary to draw on data from the other research instruments detailed in Chapter 4. Combing data from these research instruments through method triangulation enables the researcher to create a triangulated representational model of the course's activity system. Method triangulation is the practice of using multiple research instruments and approaches to uncover new forms of data and to check data against one another (see Section 5.6). For this CHAT study, the process of triangulation brings together the different perspectives and experiences of the community of learners and the teacher. This is important in that as it allows for the identification of the underlying or unconscious motives, objectives and actions of the subjects. Foot (2014: 28) states that;

‘participants in an activity are not always conscious of the motives that underlie their activity or the contradictions that provoke their actions and attempts at resolution’.

In order to triangulate the data, the researcher used the analysis of the activity system to guide his triangulation efforts. The analysis of the components of the activity system and the actions the students took within the system directed the researcher to either confirm or explore these areas further. The layout of the observation sheet aided the research in this process as they displayed elements of the course clearly and concisely from a CHAT perspective. The researcher used the tags above to direct his investigation of the data in the observations. This data offered additional context and insight into the perspectives given by the students. In the interest of maintaining the study’s trustworthiness, the researcher will describe this process using the objectives and outcomes that were tagged with the descriptor *grammar*.

We can see in Table 6.4 that grammar as an object does not emerge until the second week in the course. It then continues for the remainder of the course as a persistent issue for certain participants. Beyond those objects reported in the student reflection sheets, the data from the observation sheets show that grammar remained an object of learning throughout the course. Despite some negative outcomes identified in student reflection sheets in relation to grammar, there were overall positive learning outcomes for learners. The table below illustrates the researcher’s observation in relation to grammar. Importantly, the researcher would like to draw attention to the development of the students’ activity over time in relation to grammar. Initially, students talk about grammar in a very general way. As the course progressed student begin to focus on specific areas of Irish grammar.

Table 6.17 Extracts related to grammar from researcher observation notes

Period of observation	Section of observation sheet	Segment related to <i>grammar</i>
Week 1 Class 1	Activity within the class	Often after the students had gone through the phrases they would descend into a discussion about the languages structure, grammar and phonology.
Week 1 Class 2	Object of activity	Reaffirming grammar rules covered this week, such of the use of the dependant and independent form of <i>Bí</i> in the presents tense, the emphatic forms of words
Week 2 class 2	Observed difficulty prior to class	I am unsure whether the students are using the grammar portion of the course on the website version of the App though I have pointed out this resources several times since the beginning of the course. I am not convinced that the students will have completed the assignment given to them for this coming Friday.
Week 2 Class 2	Observed difficulty in class	Due to the students lack of engagement with the materials online and a lack of interaction with the additional materials to assist with grammar on Duolingo a large portion of this class's time (for a blended approach) was taken up with traditional instruction.
Week 3 Class 1	Rules	These grammar deficits in their knowledge base I believe are linked to the non-interaction of the students with the Duolingo platform and other resources which will be discussed next. Moreover, I also suspect that the students are not interacting with the grammar in any formal way, either through the worksheets or on the grammar section on Duolingo resource.
Week 4 Class 2	Object of activity	Have the students who were present in the last class assist other students in learning the grammar rules related to the present tense
Week five Class 2	Observed outcomes	They exhibited a satisfactory understand of the grammar rules and also of composing questions. When interacting with the teacher they also were able to express themselves and return questions that were asked of them using the emphatic form.
Week 6 Class 1	Actions observed within the activity	There was little use of the new structures using the verbal noun from the last class. The stronger students in the class were very helpful to those who struggled with such difficulties. It was heartening to see the students work so well as a team of learners. The students completed this speaking exercise very satisfactorily and there was also a little discussion in English relating to the grammar.
Week 6 Class 1	Observed outcomes	Good recall of all topics and related vocabulary, phrases and grammar covered to date.

The outcomes of the course can also be explored further using the data gathered by the group interviews at the end of the course and by recorded conversation in Irish with the individual participants. These recorded conversations lasted between 5 and 8 minute, and were sent to an external CEFR assessor (Appendix R). As mentioned in Chapter 5, the assessment of the students' recorded conversations reveals that students attained an A1 level in the language at higher and lower levels. This result is not surprising considering the small timeframe within the course and the myriad of other responsibilities in the participants' lives. Interestingly, the group interview reveals that students perceived their ability in the language to be higher. The students' felt comfortable claiming an A2 level of competency.

With regard to tool and artefact use, the observation sheets (which included meta-data from the VLEs SpeakApps and Duolingo Schools) confirms the use of these tools and artefacts identified in Section 6.1.4. An investigation of the outcomes and the various objects held by the students during the group interview confirm those which are noted in Section 6.1 above. The interview also revealed that participants were evenly divided between which language skill (speaking or listening) they felt was stronger at the end of the course. A transcript of the group interview is available in Appendix U.

A triangulated representation of the activity system is offered below in Figure 6.1. The activity system is represented at the macro level as outlined in Section 4.6.

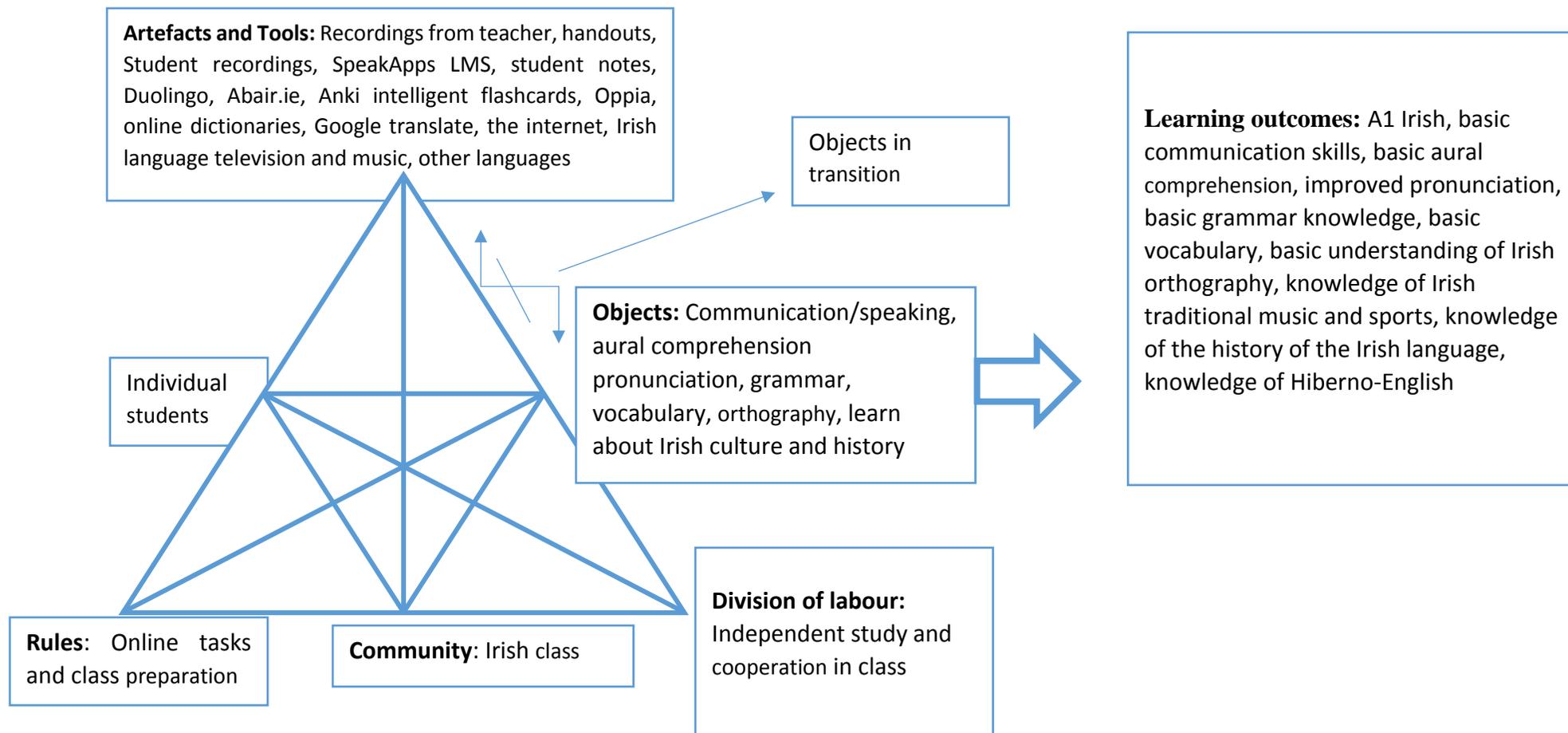


Figure 6.1 Triangulated Representation of the blended course, Introduction to Irish

Figure 6.1 above enables the researcher to now discuss the contradictions that emerged within the course in Section 6.4. In particular, the representation of the activity system facilitates the exploration of secondary contradictions. Secondary level contradictions occur when two elements within the activity system such as a tool and the rules come into conflict with one another (Foot and Groleau, 2011). Additionally, secondary contradictions are usually manifested by primary contradictions. Tertiary level contradictions arise when the object of a culturally more advanced activity system is introduced into the system (Engeström, 1987, Blin, 2005, Yamagata-Lynch, 2010). Importantly secondary contradictions exist independent and a priori to tertiary contradictions (Foot and Groleau, 2011). Finally, quaternary contradictions emerge between the central activity and its neighbouring activities in their interaction (Blin, 2005).

Through the identification of relationships between all four levels of contradictions within an activity system it is possible to reconstruct the diversity and richness of the system and thereby explore the expansive learning cycles occurring within it from the bottom up or from the perspective of the subjects (Engeström, 1987). Section 6.4 concludes the analysis of the BLL course's activity system by examining the contradictions and accumulating tensions that were identified by the researcher.

6.4 Relationships, contradictions in the activity system

This section serves to address the primary research question of this study as described previously in Section 4.1. The research question for this study is;

- **What contradictions emerge in an ab initio blended language learning course?**

As noted in Chapter 3, contradictions are sources for change and development in an activity system. Within the system they can be described as 'the motive force of change and development' (Engeström, 1999: 9). This section discusses the contradictions that were observed within the data captured by the study's research instruments and in the modelling of the activity system. Contradictions observed in the student reflective sheets form the basis for the following analysis as they provided the researcher with insight into the learners' perspectives. The intended consequence of this bottom up approach

was to guide the identification of contradictions contained in the data from the other research instruments. These sheets are examined sequentially based on the four levels of contradictions identified by Engeström (2001b). Each of these levels may be linked and therefore has the potential to impact on another. Engeström (1999: 135) states that;

The casual relationships between and among levels is derived first from the contradictions within each level and then from the contradictions between the inner contradictions of any one level and its contradictions with preceding and succeeding levels. The casual relations between and among levels is dialectical and multidirectional.

For the purpose of analysis and ease of discussion the researcher will examine contradictions as they were identified from Level 1 to Level 4. The researcher will draw on data from the CHAT-based observation sheets, interview transcripts and recording and the student background questionnaire, to explore contradictions identified in the student reflective sheets more indepthly. The researcher will conclude this section with the discussion of Level 5 contradictions. This level was added to the CHAT-based coding scheme to capture students' reflection on learning outcomes and artefact creation (Blin, 2005: 125).

6.4.1 Level 1 contradictions

Primary contradictions occur internally within a component of an activity system (Engeström, 1987). As stated earlier in Section 6.1, the segments that were given the code *participants' reflections on artefact use* (L5SUAR1) identified internal contradictions within components of the activity system. This is not the only place where primary contradictions within components were observed to occur based on the analysis of the students' reflective sheets. This will be shown in the discussion of secondary contradictions (see Section 6.4.2). Identifying Level 1 (L1) contradictions with code L5SUAR1 enabled the researcher to view the primary contradiction in the larger context of the activity system.

As not all of the segments for code L5SUAR1 identify L1 contradictions, the researcher reviewed the segments and tagged those that only identified contradictions at this level. In total 7 segments were

identified. The majority of the segments relate to the language learning platform Duolingo and its lack of audio as the following extract illustrates;

I would like the DuoLingo material to have sound bytes for all of the material on its site. It would help a lot for pronunciation.

Learner 1, Week 1

Other segments showed that an artefact, in this case listening to Irish found on the internet, was beyond a learner's capability in the language. This artefact, therefore, was not fit for them to pursue their learning object.

listening to Irish language internet is not the same because I have no clue what they are saying

Learner 1, Week 1

Other segments show that students preferred different versions of a tool on different platforms.

I've stopped using the mobile version of Duolingo. The explanations in the desktop version are helpful.

Learner 10, Week 3

These primary contradictions were also observed in the group interviews at the end of the course (See time stamps 00:17:45, 00:18:44 and 00:13:52 in Appendix U).

One important aspect to note of primary contradictions is that they are unresolvable and are therefore foundational to other levels of contradictions. Foot and Groleau (2011: 6) tell us that:

Even if attempts to resolve the other levels of contradictions are temporarily successful, the primary contradiction remains. The primary contradiction is not only continually present; it is also foundational to the other levels of contradiction. While this fundamental tension conceptualized as a primary contradiction keeps the activity system in constant tension, it surfaces in everyday contexts in various forms and in the other levels of contradiction.

The following section discusses the transformational activity that unfolded in the course. It expands on the discussion of L1 contradictions by introducing the Level 2 (L2) contradictions that were identified in the course's activity system.

6.4.2 Level 2 contradictions

Secondary or L2 contradictions occur when tensions or misfits manifest themselves between the vertices in Engeström's triangle (Bonneau, 2013: 13, Foot and Groleau, 2011). Foot (2014) states that secondary contradictions are prompted by latent primary contradictions in an activity system or by triggers that are external to the central activity system. Secondary contradictions provide subjects with opportunities to review their activity and in turn are therefore catalysts for change. These contradictions may 'trigger a series of expansive transformations' in an attempt to resolve problems that have manifested between two components of the system (Blin, 2005: 189).

An expansive transformation is accomplished when the object and motive of the activity are reconceptualised to embrace a radically wider horizon of possibilities than in the previous mode of the activity.

(Engeström, 2000: 526)

Through the examination of secondary contradictions that emerged within an activity system, primary and tertiary contradictions can be identified.

The mostly frequently identified secondary contradictions related to the following codes *L2 contradiction between Tool/Artefact-Object* (L2TOOB), *L2 contradiction between Subject-Object* (L2SUOB1) and *L2 contradiction between Subject-Community* (L2SUCO). The code L2TOOB denotes the subjects' reaction to the purposefulness of the tool or artefact used in pursuit of their learning objective. L2SUOB1 denotes subjects' reactions to their learning objects. L2SUCO identifies that the community constitutes a strong component within the activity system of the course. In the context of this study this contradiction manifested mostly in relation to in classroom activities. This will be discussed further below. Contradictions at this level of the course structure manifest at the micro level as described previously (see Section 5.5).

As stated, extracts related to code L2TOOB denote the subjects' reactions towards tool mediated object-orientated actions in general. These contradictions are represented in Figure 6.2. The contradiction between the components is marked along the connecting vertex between Tools and

Objects. Segments labelled with this code point to student reflection leading to the transformation of the object which in turn leads to the creation of a more advanced activity system. This points to a tertiary contradiction within the activity system which will be discussed in the next section.

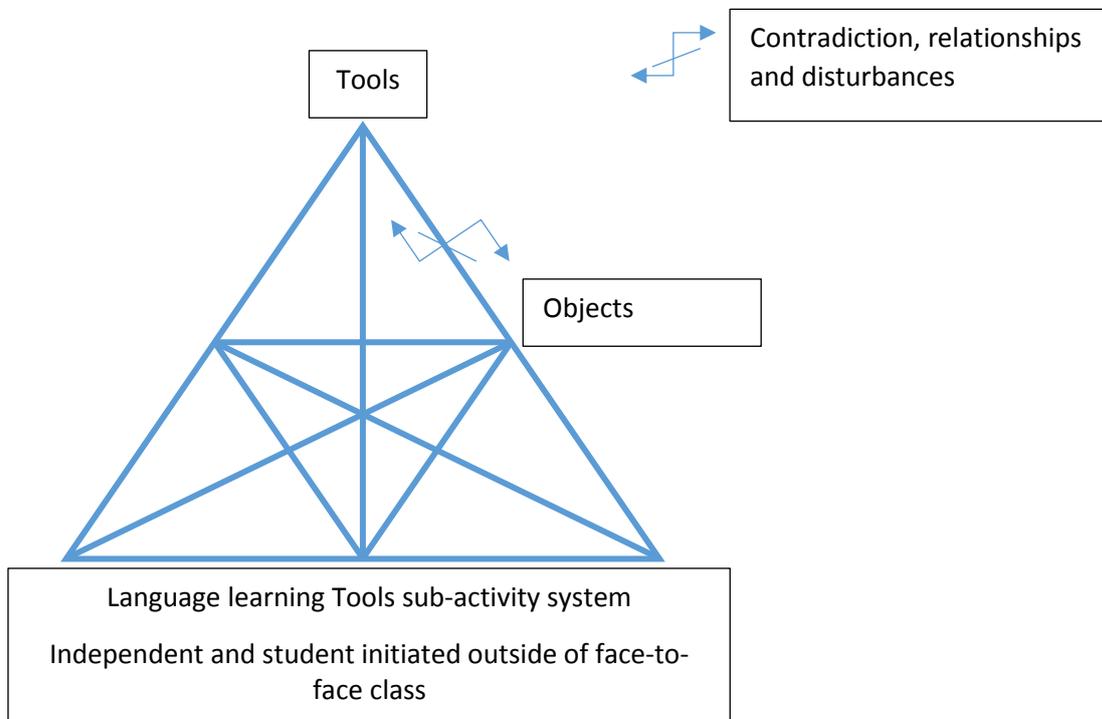


Figure 6.2 Representation for sub-activity system for CALL tools

Segments identified with this code show that tools helped students to prepare for the course prior to its commencement and without direction from the teacher. This illustrates the independent nature of the sub activity systems created by the technologies within the course.

As soon as I saw the flyer, I actually got on Duolingo and did the first couple of units

Learner 2, Week 1

Additionally, this illustrates that the course fostered student autonomy in that it enabled the study of the Irish language independently.

As mentioned previously, secondary contradictions reveal primary contradictions as the following extract shows.

[Duolingo] has been a great help, especially when the little megaphone comes up

Learner 2, Week 1

Another coded segment from the student reflective sheets reveals more detail related to a particular primary contradiction within this particular tool (Duolingo) in relation to grammar.

Rules regarding lenition and eclipsis. The rules themselves are explained fine, but having more practice would be useful since the Duolingo course only spends a small amount of time on each specifically.

Learner 4, Week 3

Primary contradictions were also identified within segments coded *L2 contradiction between Subject-Tool* (L2SUTO). These coded segments related to students' reactions towards tools.

It would be a lot easier if Duolingo had the sound accessible for all the material

Learner 1, Week 1

I often have to skip problems where I hear a word or phrase and am asked to type it because I do not know how it would be spelled

Learner 7, Week 1

Importantly, primary contradictions though ever present became less discernible as the course progressed. This contradiction is represented in Figure 6.3 below.

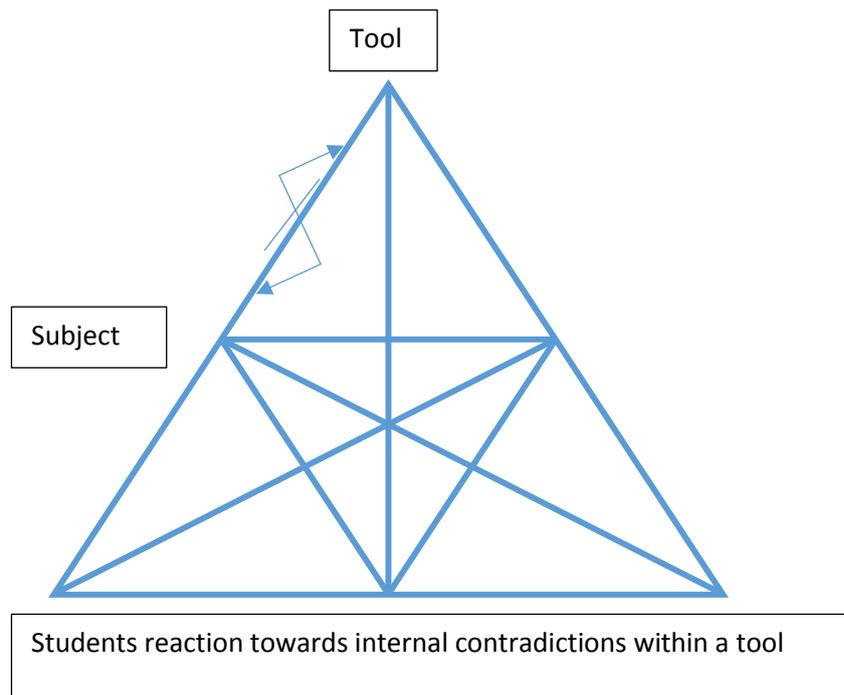


Figure 6.3 Students reactions towards internal contradiction within a tool

We can see how primary contradictions manifest here not only as secondary level contradictions but also as emerging tertiary contradictions. The following extracts show that students began to combine tools or sub-activity systems in order to pursue their learning objects thus resulting in a newer more advanced sub-activity system.

I used the Focllir.ie website a lot and the Abair.ie for the words that didn't have a little mega phone beside them.

Learner 2, Week 3

When I needed to use a new word for my recording, I looked up the pronunciation on Abair.

Learner 7, Week 3

Additionally, segments that are coded *L2 contradiction between Subject-Artifact (L2SUAR)*, that is students' relationship with artefacts, reveal that physical artefacts were used in the transformation of a tool's sub-activity system, such as Duolingo, in order to mediate a primary tension within the tool.

I prefer reading a passage and then listening to it, because then I can 'see' the words as I hear them

Learner 9, Week 3

The SoundCloud recording really helped. I listened to the recording you uploaded a couple of times for the pronunciation practice and then wrote and recorded my own.

Learner 2, Week 3

From a temporal perspective, the combinations of different tools and different artefacts occurred in the latter weeks of the course. This suggests that the horizons of students' knowledge or their objects continued to expand as the course progressed. This also points to emerging tertiary level contradictions as discussed in the next section.

Furthermore, contradictions identified with code *L2 contradiction between Tool/Artefact-Object* (L2TOOB) reveals how tool-mediated actions were focused on the development of a particular feature within a skill set (e.g. pronunciation as a component of speaking) or aural comprehension (e.g. using knowledge of grammar rules to improve aural comprehension). This code in turn identified students' objects that were in the process of transformation. These objects in transition constitute the trajectory of development towards the long term objectives of the subjects and the course as summarised in Figure 6.1. Memorisation, pronunciation, listening comprehension and grammar were objects identified as being pursued through tool-mediated actions. Anki in particular was commended for its usefulness in memorizing vocabulary.

used Anki to help memorize the phrases.

Learner 7, Week 2

I used Anki to memorize the household vocabulary,

Learner 7, Week 3

The code *L2 contradiction between Subject-Object* (L2SUOB1) identifies segments related to the subject's consideration and review of their object. This review is prompted by the subjects' reactions towards internal contradictions within tools and artefacts and their use in pursuing a learning object. The segments identified with this code show that subjects refined their focus particularly in later weeks of the course in response to specific difficulties and accumulating tension. This is turn created

tertiary contradictions as it impacted on subjects' actions. The following extract from Learner 1's reflection sheet in Week 1 is an example of this behaviour.

I'm also having trouble imagining how certain words sound and the general cadence of the language.

2. What resources did you use to overcome these challenges and to pursue these goals?

I listened to the recordings from Oisín and they were helpful. I also listened to all of the DuoLingo sound bytes.

3. What were the learning outcomes for you?

I'm starting to hear patterns.

4. What do you feel you are still uncertain about or would you like to improve upon?

Pronunciation.

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

I listen multiple times to the class recordings of the basic phrases.

As noted in Section 6.1 above, in the later part of the course the transformation and refinement of the objects is particularly evident. This can be seen in the following extracts in relation to vocabulary acquisition, learning and communication strategies, and pronunciation.

Segments identified with the code *L2 contradiction between Subject-Community* (L2SUCO) tells us the relationship between the community and the subject and their interactions with one another in pursuing learning outcomes. This is discussed further in the discussion of L3 contradictions in Section 6.4.3. Tertiary contradictions manifested when individual subjects' objects were combined with other subjects in the community through the social construction of an object set by the teacher such as talking about one's family. This collaborative activity transformed the subjects' relation to the object thus creating a more advanced sub-activity system that is built on knowledge and competencies developed in less advanced sub-activity system. The segments coded L2SUCO identify participants' classroom actions and the peer collaboration that occurred as a part of the sub-activity system of the

classroom. These segments also identify students' relationships with other subjects from external activity systems.

The segments identified by code L2SUCO show that students took advantage of opportunities to share the knowledge they had acquired when it presented itself.

[I went] to visit my family the following weekend, I was telling my mom, dad and sisters how to say different things on the Basic Irish Phrases document.

Learner 2, Week 1

My manager, Learner 1, is taking the class as well and we practice speaking the few things from class during the day.

Learner 2, Week 1

Actually, Learner 10 was helpful. He got over his frustration and decided to commit, find things to help himself, and he overtook me 😊. So I can ask him things now and he's more open to practicing together.

Learner 9, Week 1

...sharing the findings about Irish language with a friend

Learner 6, Week 3

Segments identified with the L2SUCO code also highlight the lack of potential for students to interact with native level speakers as only the teacher was available to the students for the majority of the course.

In the context of the classroom the researcher's observations and interviews show that collaborative activity led to the acquisition and review of language skills that resulted in communicative practice as determined by the teacher. The student interviews also confirm that the social construction of the object was a desirable element for the subjects in the class. Participants expressed their desire for more class time to engage in this type of activity.

00:07:46: Learner 1: Um... so, I, in an ideal world, I would've liked to see a quick class four days a week plus these exercises to do at home. And it would've helped me learn a language better.

00:07:56: PI: Yeah, yeah. Of course, yeah. Well in an ideal world I would've liked to do five days a week but it's just about fitting it into everyone's schedules.

00:08:05: Learner 1: Totally. And I don't mean for that to be a criticism.

00:08:09: PI: No, no, not at all. Yeah, I understand, obviously more frequent interaction... What did you most enjoy about the face-to-face? Was it the listening that we did, or was it the speaking when I got everyone talking? What was it that helped you the most?

Learner 1 Interview, Appendix V

The remaining codes identify contradictions and disturbances between the courses rules and division of labour. These contradictions were also observed by the researcher as documented in the face-to-face classroom observation sheet (See Appendix Q, Week 3). The following excerpt from the observation sheet illustrates how the contradiction between the rules and the subject within the tool sub-activity system resulted in a delayed progression in course topics.

Only half of the class managed to complete the Duolingo assignment in the time specified. This delays the advancement of the course and impacts on the student's ability to recall vocabulary, phrases and structures in the class. This in turn impacts on the types of activities that can take place in class and also affects the format of the class as I have had to adopt a traditional approach to overcome gaps in the students' knowledge.

Research Observation Sheet, Week 3, Class One

Section 6.4.4, identifies the causes for these contradictions. The contradictions resulted in tensions and prevented transformative actions from taking place. The code *L2 contradiction between Subject-Rules* (L2SURU) identifies relationship between the subject and the course's rules. It identifies that effect of student absences on student progression and on class progression. The researcher's observation sheets show that the subjects absences negatively impacted on the course's progression with topics

Additionally, the code L2SURU identifies that certain subjects disregarded other explicit rules of the language course by not interacting with course materials or the target language outside of the classroom.

I also don't use the photocopies except for in class. But I know there is info in there that I should read... I'm just another student. Sigh.

Learner 9, Week 1

I fell behind in Duolingo

Learner 10, Week 3

Learner 10 later stated in the reflective sheet that she was still not confident with the recall of words and phrases. The memorization of words and phrases was one object that the student had identified that week in pursuit of the longer term objective of using the language to communicate in class. The research observation sheets note that during Week 3 in the *Rules* section of Class 1 that students had not completed the Duolingo assignments and also had failed to interact with other tools as specified by the teacher.

The primary contradictions noted in Section 6.4.1 can be observed to manifest themselves as tensions between the students' object of improving their speaking and listening skills through the combination and use of multiple artefacts and tools. These secondary contradictions show that students reviewed their use of artefact and tool which in turn led to the transformation of the activity system. This identifies some tertiary level contradictions. This type of contradiction is illustrated in Figure 3.3 in Chapter 3 and is illustrated again in the context of the contradictions identified here in Figure 6.4.

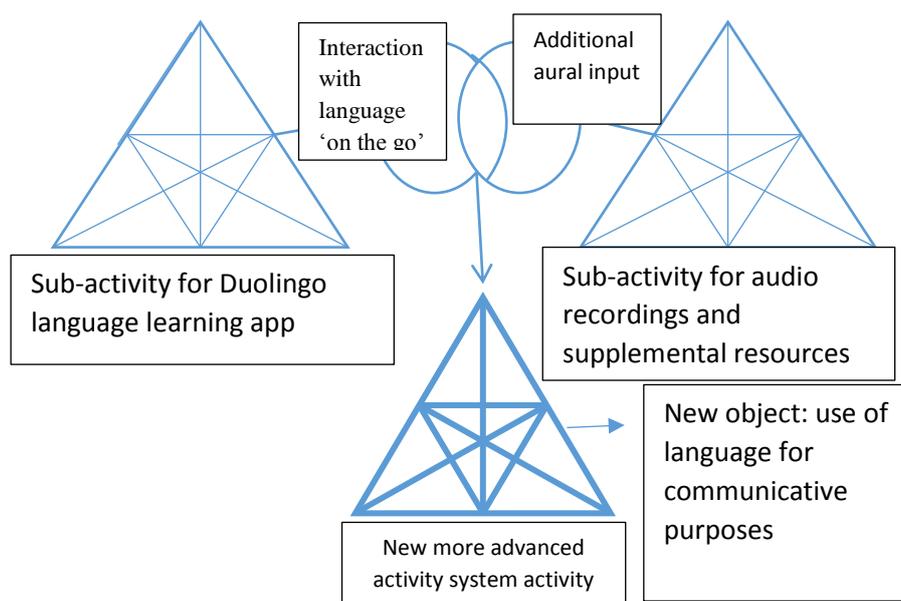


Figure 6.4 Two interacting activity systems in Introduction to Irish

Figure 6.4 illustrates how the primary contradiction present in Duolingo, its lack of audio (see Section 6.4.1), resulted in students using additional resources such as audio recordings from the teacher or audio provided by a text to speech synthesizer to improve access to aural input in the Irish language. This results in a separated activity system to supplement an already existing activity system. These contradictions are motivated by the overall desire to pursue oral communication using the target language in a face-to-face environment. The outcome of these two activities facilitate the generation of a culturally more advanced activity system emerging in the context of the face-to-face class.

In summary, students' reactions toward internal contradictions prompted them to review the appropriateness of the mediating tools and artefacts in order to pursue their learning object. This in turn prompted students to combine artefacts which resulted in the creation of a more advanced activity system to resolve the secondary contradiction originally stemming from the initial contradiction. Put briefly, secondary contradictions within the language course were superseded 'with

a newer more encompassing configuration of contradictions' (Engeström, 2001b: 143). These are tertiary contradictions which are discussed next.

6.4.3 Level 3 contradictions

The discussion of L2 contradictions preceding this illustrates how a less advanced activity system can create historical accumulating tension in a more advanced activity system.

Tertiary contradictions within an activity system arise when the object of a more "culturally advanced" activity (Engeström, 1987) is introduced into that system. The motive for introducing a new object to an activity system is typically to find relief from one or more secondary contradictions and the tensions stemming from them. The introduction of a new object can also trigger the developmental phase through which the activity system will be redefined and reconfigured.

(Foot, 2014: 23)

The identified Level 3 (L3) contradictions show that there was a disconnect between the objects of the course and the tool-mediated actions of the students outside of the classroom. This is documented in the researchers' observations sheets in relation to the students' online activities and the student's attendance of the face-to-face class (see Appendix Q). Students' attendance in relation to contradictions is discussed in more detail in the Section 6.4.4.

The L3 code identifies fewer contradictions at this level. In order to explore contradictions further at this level it is necessary to build on the discussion of the components of the activity system in Section 6.1 above. In the discussion of students' objects, we can see that there is evidence of expansive transformation cycles occurring. In Section 6.1, student objectives are shown to become more defined and specific in terms of their language learning goals. This suggests that students' outcomes prompted students to revise their personal learning objectives as the course unfolded.

As noted in the discussion above, certain secondary contradictions that emerged in the different sub-activity systems led to expansive transformations of objects. The outcomes of these transformational cycles was not always predictable as certain secondary contradictions would manifest as historically occurring structural tensions within the course. Figure 6.4 above illustrates the expansive learning cycle that took place in the course. When subjects combined objects from different sub-activity

systems they created a new sub-activity system within the course. Figure 6.5 represents how a secondary level contradiction manifested as a historically accumulating tension.

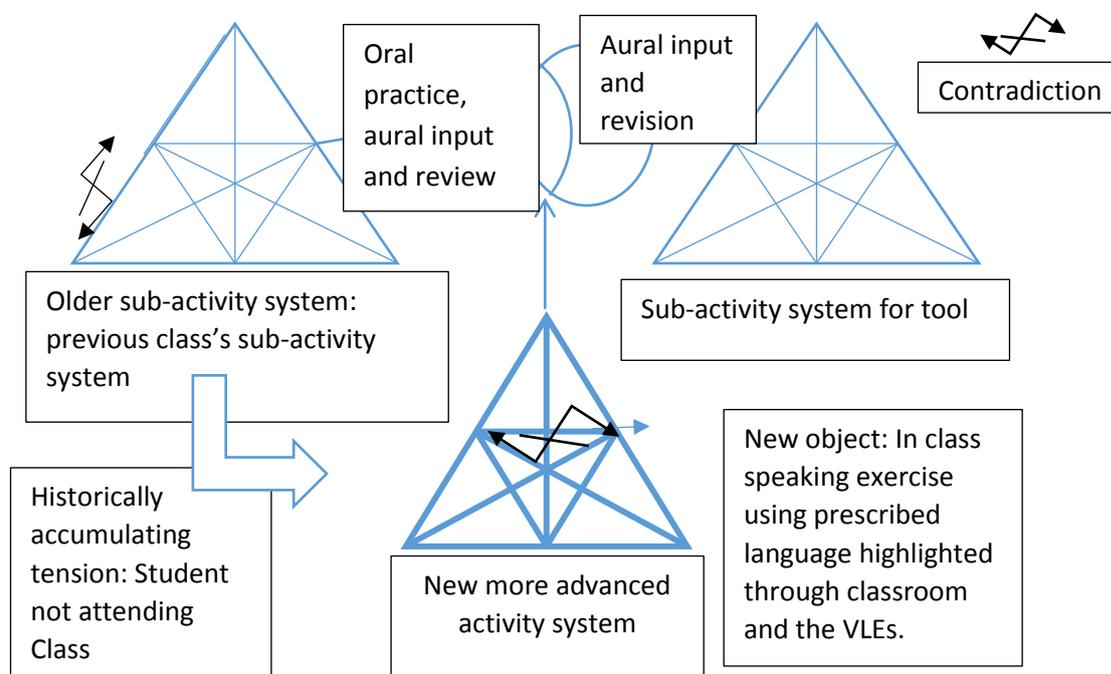


Figure 6.5 Representation of accumulating tensions caused by the interaction of two sub-activity systems within the course.

In Figure 6.5, the triangle labelled *Older sub-activity system* illustrates a Level 2 contradiction. In this case, the triangle illustrates a contradiction between a subject and the rules of the course (e.g. not turning up to class). We can see in the new more advanced activity system of the following face-to-face class that the contradiction emerges as a tension between the subject and the object. As the subject lacks the oral language practice that was provided for in the previous face-to-face class the object of the new system as defined by the teacher, the subject is unable to perform the tasks requested of her. This tension then results in the transformation of the activity system as the teacher is required to adjust the objects defined by the syllabus to facilitate the subject language development. The researcher's observation sheets convey this transformation of the objects (See Weeks 3 and 4 Appendix Q).

Quaternary contradictions and their relationship to tertiary contradictions within the language course's various sub-activity systems are discussed in Section 6.4.4.

6.4.4 Level 4 contradictions

As noted in the preceding discussion, quaternary or Level 4 (L4) contradictions were identified as causing secondary contradiction. These contradictions in turn manifested as tertiary contradictions in the form of historically accumulating tensions within the activity system.

...quaternary contradictions arise between the central activity and its neighbouring activity systems when a new form of practice is employed based on a reformed and/or expanded object. In other words, transformation of the object of the central activity system creates disturbances in that system's relations with the other activity systems with which it interfaces.

(Foot, 2014: 24)

Quaternary contradictions mostly appear in the latter half of the course. As the college semester progress students' schedules became busier and put increasing demands on students to prioritise their activities within different activity systems of which they were members.

The following extract from the group interview shows that towards the end of the course participants came under increasing time management pressure;

00:12:13: And we keep getting emails randomly from Duolingo everyday, so I remembered. And um... I actually did manage to go on everyday until recently.

00:12:24: (group laughter)

00:12:25 PI: Well we all understand why because everyone is so busy with mid-terms, isn't it? [General agreement]

The L4 contradictions impacted the activity in the class and changed the trajectory of the transformation of the object. For certain students at this juncture in the development of the activity system the object as identified by the course and the teacher was no longer to expand what they learned. The object was to solidify their understanding of elements of the language and to transmit that knowledge to others in order to bring them up to speed with the language course's objectives.

Figure 6.6 illustrates the trickledown effect that a quaternary contradiction can have on other sub-activity systems within the language course.

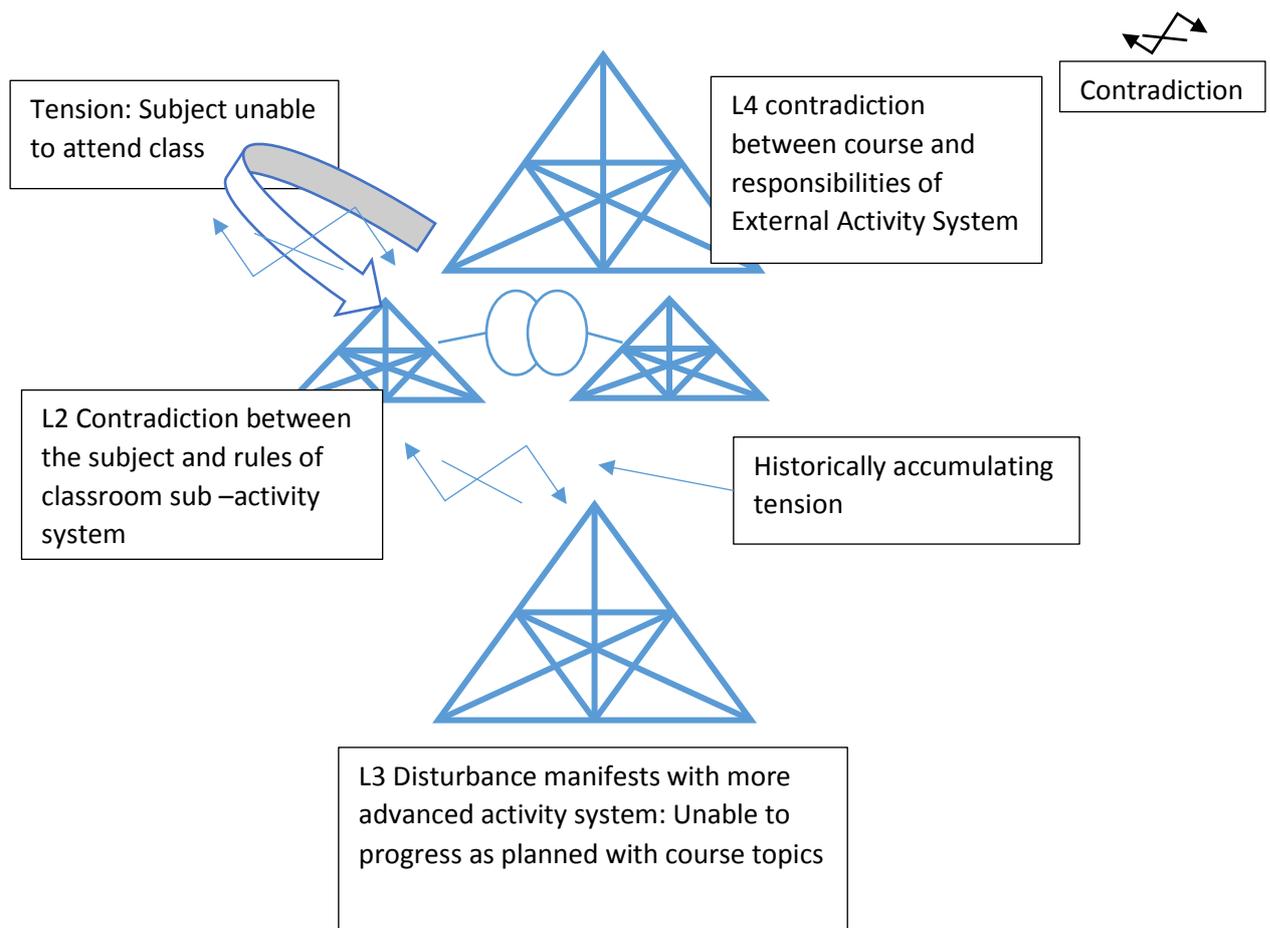


Figure 6.6 Interacting contradictions at multiple levels

Building on the explanation for Figure 6.5, Figure 6.6 illustrates the trickledown effect a quaternary contradiction had in the activity system. The triangle representing the L4 contradiction above resulted from external pressures being exerted on the subjects by the larger social context in which the course was situated. As mentioned these resulted from the participants work and school commitments. These commitments on occasion result in students missing class which subsequently resulted in students being partially unprepared to use phrases and vocabulary properly in the following face to face class. This L4 contradiction was also observed to effect students submission of audio recordings. Table 6.18 below gives an overview of students' attendance over the duration of the course. We can see that student attendance begins to drop in the second half of the course. Students' absences caused various difficulties for the teacher as he was unable to progress with the course's defined

learning objectives, as already mentioned in the discussion of tertiary level contradictions. The causing factor for this contradiction related to students' prioritisation of external activity systems over the language course's.

Table 6.18 Student attendance

	Orientation and information session 06-Sep	Course begins: 09-Sep	13-Sep	16-Sep	20-Sep	23-Sep	27-Sep	30-Sep	04-Oct	07-Oct	11-Oct	14-Oct	Course ends: 18-Oct
Learners		Week 1		Week 2		Week 3		Week 4		Week 5		Week 6	
Learner 1	1	1	1	1	0	0	1	1	0	Student dropping out			
Learner 2	1	1	0	1	1	1	1	0	1	1	0	1	0
Learner 3	1	1	0	1	1	1	1	Student dropping out					
Learner 4	1	1	1	1	1	1	1	1	1	1	1	1	1
Learner 5	1	1	1	1	1	1	1	Student dropping out					
Learner 6	1	0	1	1	1	1	1	1	0	0	1	1	1
Learner 7	1	1	1	1	1	1	1	0	1	0	1	1	1
Learner 8	1	1	1	1	1	1	1	1	1	1	1	1	1
Learner 9	1	1	1	1	1	1	1	1	1	1	1	1	0
Learner 10	1	1	1	1	1	1	1	0	1		1	1	0
Learner 11						Student starts course	1	0	1	1	1	1	1
Attendance for each class:	10	9	8	10	8	9	8	4	7	5	7	8	5

Extracts from the students' reflective sheets convey the challenges or pressures introduced by external activity systems into the activity system of the course, as the following extracts show;

...just getting the work done regularly while doing beginning of semester things for work.

Learner 8, Week 1

The timing is not ideal for me since I'm so busy with work and grad school.

Learner 2, Week 2

I had to miss class on Friday because of a retirement party but I ended up missing that because of a grant that was due.

Learner 2, Week 3

The time commitment for these few weeks was not large at all and as the semester went on, I found it more and more difficult to make sure that I did the work.

Learner 9, Week 5

These extracts also show that the pressure was present from the beginning of the course but only manifested as tension as the other activity systems developed. Additionally, the penultimate extract above shows the emergence of tensions between multiple interacting external activity systems.

The student interviews also reveal the tensions introduced by the course into external activity systems and the conflict between two external activity systems for the students' time.

00:27:57: I had to shift my schedule to accommodate studying for this class and making sure I'm prepared for each class and then I ended up failing, and all of those aspects and I eventually said you know I'm too far back so I might as well just...

00:28:26 PI: Cut your losses?

00:28:32: I didn't want to cut this but then I said I'm too far behind and I'm not going to catch up.

The following extract from the Learner 1's one-on-one interview also points to this quaternary contradiction.

00:11:36: Learner 1: I was gonna ask you, if you come back if I could just take it again. I'm sorry I had to, just because of my travel schedule, not do it as seriously as I would've liked to.

This concludes the discussions of the different levels of contradictions that were identified across the research instruments. The next section discusses students' reflections on language learning outcomes, and on artefact use and creation.

6.4.5 Level 5 contradictions

As stated previously, Level 5 (L5) contradictions were added to the CHAT-based coding scheme to capture students' reflection on learning outcomes, artefact creation and artefact use (Blin, 2005: 125).

Segments tagged with the code *L5 contradictions between Subject-Outcome-language* (L5SUOU1) constitute the largest group within this category of the coding scheme as applied to the student reflective sheets. This code is used to identify student's reflections on language learning outcomes. The segments identified with code L5SUOU1 show that the design of the BLL course facilitated student engagement with the language outside of the classroom which in turn impacted positively on classroom activities. Segments here also show that students were conscious of the progress they were making with regard to specific language items. The reflections also identify the positive attitudes of the students in pursuing their long term language learning objectives and the important role the teacher played in facilitating student activity. L5SUOU1 coded segments also highlight the central role that various artefacts and tools played in mediating the subjects' learning activity.

The second most numerous code in this category was code *L5 contradictions between Subject-Artefact/Tool* (L5SUAR1). As mentioned in Section 6.1, the code L5SUAR1 was added by the researcher in order to capture participants' reflections on artefact or tool use. Some segments identified with this code have already been discussed above under Level 1 contradictions, see Section 6.4.1. This code

played a very important function in identifying the students' reactions to specific artefacts and tools in the activity system. Additionally, the segments identified with this code give an insight into the participants' experience of using specific artefacts and tools within the BLL environment. This is of immense value to this study as it reveals the participants' individual perspectives towards an artefact or a specific feature of an artefact over the duration of the study.

The remaining segments that were coded with *L5 contradictions between Subject-Artefact created by the learner* (L5SUAR2), used a total of 3 times, identify participants' reflections on artefacts that they created. The low frequency of use for this code suggests that the artefacts created by the students did not constitute a major component in the development of students' learning objects as documented in their reflective sheets. This is possibly a reflection of the students' ab initio language level. Each of these codes will now be discussed more indepthly. During this discussion the researcher will triangulate the coded segments with the observational notes and interview transcripts. Student reflection on language learning outcomes

L5SUOU1 Subjects' reflections on language learning outcomes

The segments tagged with the code *L5 contradictions between Subject-Outcome-language* (L5SUOU1) reveal the students' reflections on their language learning outcomes during the course. This code identified segments that provide insight into the various experiences of the participants of learning the Irish language. Furthermore, the segments reveal which parts of the learning process they enjoyed or found difficult.

The researcher was able to organise the information contained in L5SUOU1 segments using tags developed above in Section 6.1 to analyse learning outcomes. These tags are; *Speaking skill/Pronunciation*, *Grammar*, and *Strategies and transferable Skills*. The researcher also added tags to identify participants' general positive or negative reflections on different learning outcomes with the tags *negative reflection* or *positive reflection*.

Table 6.19 below illustrates the frequency of the tags used to organise the coded segments.

Table 6.19 Frequency of tags for students' reflections on language learning outcomes

Tag	Frequency
Positive reflection	39
Strategies and transferable skills	26
Speaking skill/Pronunciation	17
Grammar	14
Negative reflection	14

Each of these tags is discussed in turn next.

Positive reflections

This tag functions to identify the participants' general enthusiasm for different parts of the language course. It also functions to identify the participants own perception of the progress they were making in their individual language learning journeys. Overall, this tag shows that participants often reflected positively on the language course throughout its duration. These segments identify the different positive elements within the language course that the students found to be enjoyable or helpful to them in some way. Table 6.20 gives an example of some of the positive reflections identified in the students' reflective sheets from early in the course.

Table 6.20 Coded segments for positive reflections tag (1)

Tag	Coded segment	Week	Learner
Positive reflection	What I think helps the most though is the first 15min of class where we got up to talk to other people	1	2
Positive reflection	But I'm really looking forward to this course	1	2
Positive reflection	Everything is great so far! I think the main thing that I'm having problems with is the pronunciation.	1	2
Positive reflection	I feel that I am getting a good grasp overall thanks to classroom exposure	1	4
Positive reflection	In particular, the fact that the classroom subjects tend to at least partially match up with the Duolingo course track is of great use.	1	4
Positive reflection	The course has a good pace and manages to teach a good amount despite only meeting twice a week.	1	4

Positive reflection	I have no particular dislikes so far.	1	4
Positive reflection	has been very helpful in achieving the goal above	1	5
Positive reflection	Very good class because of how interactive it is	1	5
Positive reflection	Repeated practice in class has helped me respond faster in conversations.	1	7
Positive reflection	My impression of the course so far is generally positive. The class sessions are structured well, with a good balance between time practicing and time learning new information.	1	7
Positive reflection	The class is great in terms of speed and subject matter	1	8
Positive reflection	and I did pretty well	1	9

The extracts above show that despite the high emphasis placed on the usage of technology in the course by the teacher, the participants perceived the face-to-face classes to be of most value in terms of language acquisition at the beginning of the course. It seems that this perception, that face-to-face time was the most valuable activity in the blend, continued throughout the course. This assertion is further supported when the students' attendance sheets and the user data from the online tools are compared. This is documented in the later weeks of the researchers' observation sheets (See sections *observations prior to class*, Weeks 4, 5, and 6, Appendix M). Students who had no interaction with online tools other than Duolingo continued to attend the class. This can be understood to be as a result of the participants' enjoyment of the face-to-face class itself. Additionally, it was also revealed in the group interview that the students required more support to use these tools in combination with one another as the following extract shows;

00:43:08 PI: Do you think that the course started off too tech-heavy, or was it just the right amount? Was it too much at once?

00:43:17: There was a lot of information.

00:43:19 PI: It was a lot of information? So space it out even more.

00:43:25: And for each site, show it to us and say, "this would be good for this". Because in the end I did try to use some of those dictionary sites and I got frustrated so I just said, "okay, I'm just going to listen to Oisín and mirror his pronunciation."

00:43:38 PI: Okay, alright. Em...

00:43:44: But in the end, you can let people decide then which ones they want to use if they all do relatively the same thing but in different ways.

00:43:51 PI: Yeah, yeah. Okay, I understand. I thought that there was enough support but I was obviously mistaken (laughing).

This reveals contradictions within the activity system between the teacher's perception of the students' ability regarding all tools in the blend and the students' actual ability or confidence with those tools. From a theoretical perspective, these contradictions manifest as second level and third level contradictions as already defined above. In practice, the lack of training resulted in an aversion to the use of certain online tools. The contradiction between the subject and community created a contradiction between the subject and the artefact. The training it seems was not sufficient to prepare the learner for certain types of planned learning activity as envisioned by the teacher. This also resulted in a historically accumulating tension later in the course (Level 3 contradiction). An outcome of the failure in training is that it can be seen as a contributing factor to participants' abandonment of nearly all prescribed online oral practices. There was also a large fall off in user activity on SpeakApps towards the end of the course. The only technology that users continued to engage with on a regular basis till the end and even after the conclusion of the course was the Duolingo platform. This is partially due to its accessibility while participants are 'on the go'. The participants' reflections on the use of artefacts are discussed in the following section.

Coded segments identified with the tag *positive reflection* from later weeks show that participant's positive reflections continued throughout the course as seen in the following extracts in Table 6.21.

Table 6.21 Coded segments for positive reflections tag (2)

Tag	Coded segment	Week	Learner
Positive reflection	Overall everything is going well. As I've said in previous weeks, I wish I had more time to devote to this. I need to learn to relax and trust what I'm saying. I tend to over think what word comes next which just throws me off.	3	2
Positive reflection	I feel that I have been starting to become more comfortable in the language to a certain extent,	3	4
Positive reflection	The course has been moving at a good enough pace for me.	3	4
Positive reflection	I've observed improvements.	3	6
Positive reflection	It has been a challenge, particularly with the family members words. But I am enjoying the experience	3	6
Positive reflection	The course is going great! I am learning a lot and I feel like I am improving my skills.	3	7
Positive reflection	It's getting a little easier!	3	8
Positive reflection	it's great, I wish i had a better handle on the language but i think I'm getting there	3	8
Positive reflection	I'm getting better, but it's a constant struggle.	5	8
Positive reflection	I like how much we are encouraged to talk to each other. I struggle through it but it is super helpful.	5	8
Positive reflection	It's amazing how much can be done in one hour	5	9
Positive reflection	I am surprised at how much I learned	5	9

These extracts suggest that the course struck a balance between challenging the participants on one hand, while nurturing their confidence in the target language on the other. It is unfortunate that more data was not available for later weeks in the course. The amount available for that period in the study is rather limited due to non-submission of reflective sheets by the participants as already mentioned. When the segments identified using this tag are viewed together, it is clear that the participants felt they made great progress in developing their knowledge of the Irish language over the duration of the study. It is also clear that the majority of the class who were able to complete the course enjoyed working with other people in pursuit of their language learning goals. This is evidenced in the

researcher observation notes in the *in class face-to-face observation* sections and in the following group interview transcript extract (Appendix V);

00:47:37 PI: And what was the thing that... in the entire course... what was the thing that you most enjoyed? That was the biggest thing that you got out of it?

00:47:50: Making fun of you.

00:47:52 PI: (laughing) Making fun of me? Thanks Learner 9.

00:47:54: You're welcome, you said be honest!

00:47:57: (group laughter)

00:48:00: I liked it too.

00:48:01: I feel like I can have a conversation now, that's exciting.

00:48:05 PI: A conversation in Irish?

00:48:08: It's a very simple one with someone that's helping me, but yes.

00:48:12 PI: Any cultural awareness outcome, or historical, or identity?

00:48:16: Irish football is terrifying (laughing).

00:48:18: (group laughter)

00:48:22: Hurling is... barbarous(?)

00:48:25: I have two songs that I downloaded on my iPhone and I listen to them all the time. I can understand... well I can't understand but I can discern many more of the words than I could. I thought it was just a run on sentence. I can discern them that much better now.

00:48:44: That's good. So the cultural elements, were they important parts of the course? Should we put more elements on culture or...

00:48:50: It's an interesting part of the course. I mean in terms of like helping me to speak Irish I don't know if they really helped but in terms of being interesting, yes.

00:49:01: They were an extra motivation to learn the language.

00:49:07: Just the video of the footballer or whatever it was that you put on there, um, I actually looked up other ones. You watch one on YouTube and you just follow a whole bunch of other ones.

00:49:21: I didn't find the culture particularly interesting.

00:49:23: (group laughter)

00:49:30: I don't like Irish television. But I really liked about the words English has borrowed, or this expression has come from this. You know, like, the *lore and easy peasy* and stuff like that. I found that fascinating.

00:49:45 PI: Okay, cool. So there was something for everyone even if you didn't like the... did I see no blacks, no dogs, no Irish on your office... (laughing)

00:49:52: (laughing) Yeah, you did.

00:49:57: So the last thing I'm going to ask is would you continue to learn Irish?

00:50:05: Yeah.

The interview extract above illustrates the cordial nature that existed between the researcher and the participants. The laughter and friendly teasing that were present in the group interview reflects the atmosphere that was present in the face-to-face classes throughout the course. The laughter suggests that the participants felt at ease with the researcher in the interview as they did in the course. The researcher posits that the blend between the online tools and the face-to-face elements as well as a focus on communication rather than explicit grammar lessons in the classroom are some of the reasons for these positive reflections. Another explanation, the researcher suspects that this relates to the novelty of the Irish language for these students and the general 'craic' associated with most things Irish in America.

The following section illustrates the important relationship that students had with technology outside of class when trying to develop their strategies and transferable skills in pursuit of their learning objects.

Strategies and Transferable Skills

The second most numerous tag *strategies and transferable skills* identifies students' reflections related to cognitive and metacognitive approaches to learning the Irish language. The tag also identifies reflections on skill development and on the important role different language skills played on skill development. The extracts suggest that participants favoured multi-modal approaches to the development of their speaking and listening skills. Table 6.22 provides different examples of a participant engaging their reading and listening skills with a view to improving their comprehension and communicative skills. The participant's reflections identified using this tag also suggest that recall and memorisation were seen to be integral to the learners' ability to use the language to communicate. Learner 8 comments over a number of weeks that the lack of ability to be able to pronounce words is impacting on his ability to commit the words to memory.

Table 6.22 Coded segments for strategies and transferable skills tag (1)

Tag	Coded segment	Week	Learner
Strategies and transferable skills	I'm still struggling with pronunciation and immediate recall,	1	8
Strategies and transferable skills	My biggest struggle is pronunciation, which is really what's hindering my ability to remember stuff.	1	8
Strategies and transferable skills	My memory of phrases is improving but getting the words to fit in my mouth correctly is a bit of a struggle.	2	8
Strategies and transferable skills	I'm still having some pronunciation trouble and word recollection trouble but I just need to practice more.	3	8
Strategies and transferable skills	it's starting to become a little easier to recall things, and its especially become easier to understand things	3	8
Strategies and transferable skills	I'm starting to build a mental lexicon, which is great. I know some words off the top of my head so things are getting slightly easier.	5	8

Additionally, the extracts identified with this tag show that students viewed the multi-modal approaches to language learning to be beneficial to the students' language learning goals. Participants often reflected on the impact one language skill had on the development of another. The following table presents some examples of these extracts to illustrate this point.

Table 6.23 Coded segments for strategies and transferable skills tag (2)

Tag	Coded segment	Week	Learner
Strategies and transferable skills	Challenges: Remembering basic conversational phrases and pronouncing them correctly	1	7
Strategies and transferable skills	I'm still struggling with pronunciation and immediate recall,	1	8
Strategies and transferable skills	My biggest struggle is pronunciation, which is really what's hindering my ability to remember stuff.	1	8
Strategies and transferable skills	But it's hard to cram everything in and still remember.	2	1
Strategies and transferable skills	Doing the listening exercises from the book, is really helping me to pick the familiar words out of sentence and solving the words I don't know with context clues.	2	2
Strategies and transferable skills	Still uncertain about pronunciation from reading text	2	5
Strategies and transferable skills	But I think that once I learn the words from speaking them I will recognize them in the text and that won't be a problem anymore so	2	5

The extracts above reveal something of the internal metacognitive strategies that the participants employed to pursue their personal learning objects. They highlight that students engaged in different but similar activities in order to develop the pronunciation skill. Overwhelmingly though, the coded segments identified with this tag suggest that most of the strategies and activities that were engaged in by the participants were orientated towards the refinement of either the oral production or aural comprehension of the Irish language. Remaining tags can be seen in Table 6.24;

Table 6.24 Coded segments for strategies and transferable skills tag (3)

Tag	Coded segment	Week	Learner
Strategies and transferable skills	My memory of phrases is improving but getting the words to fit in my mouth correctly is a bit of a struggle.	2	8
Strategies and transferable skills	The eclipses came a little easier since I was able to pair voiced/voiceless consonants for eclipses.	2	9
Strategies and transferable skills	. I'm not sure if all the speaking practice is training my tongue and mouth to form the words and sounds, or if I'm just getting used to hearing the way that I say it and think it's correct.	3	2
Strategies and transferable skills	I hope I remember the section	3	2
Strategies and transferable skills	which was helped a lot by reading while listening.	3	4
Strategies and transferable skills	Despite re-reading explanations in Duolingo and Internet, I still would like to improve and put in practice easily the lenition and eclipses	3	6
Strategies and transferable skills	This also was good practice with pronunciation.	3	7
Strategies and transferable skills	I'm still having some pronunciation trouble and word recollection trouble but I just need to practice more.	3	8
Strategies and transferable skills	it's starting to become a little easier to recall things, and its especially become easier to understand things	3	8
Strategies and transferable skills	I'm also struggling with words that are missing in my replies bc I thought I knew what was what (that I understood what I needed to do and in fact, did not).	3	9
Strategies and transferable skills	I'm happy that reading and writing are possible at this point even though they aren't a focus of the course.	3	9

Strategies and transferable skills	I'm not comfortable not knowing the words and expressions and am still training my brain to memorize and find mnemonics.	3	10
Strategies and transferable skills	I'm starting to build a mental lexicon, which is great. I know some words off the top of my head so things are getting slightly easier.	5	8

It can be observed in the examples above that the participants engaged multiple skills in order to pursue their personal language learning goals. It would appear also that these examples verify the object-orientated actions identified by the researcher using the CHAT based coding scheme in Section 6.2. The primary goals for the students over the duration of the course can be seen in the discussion of the following tag *Speaking skill and Pronunciation*. The discussion of this tag also validates the findings of the researcher in Section 6.2.

Speaking skill and Pronunciation

Unsurprisingly for the researcher, participants' reflections on language learning outcomes show that the oral production of the Irish language and the pronunciation of Irish words presented the main difficulty for the students in the first weeks of the course. This would continue throughout the course as noted in the researcher's observations and as stated in the students own reflective sheet. This problem also was impacted by the language's unfamiliar orthographic system. The system caused the participants additional difficulty in pursuing the development of their pronunciation. Table 6.25 below illustrates these assertions;

Table 6.25 Coded segments for speaking skill and pronunciation tag (1)

Tag	Coded segment	Week	Learner
Speaking skill/Pronunciation	knowing how to pronounce the words	1	5
Speaking skill/Pronunciation	I'm still struggling with pronunciation	1	8
Speaking skill/Pronunciation	My biggest struggle is pronunciation,	1	8
Speaking skill/Pronunciation	Pronouncing new words is still a challenge.	2	7
Speaking skill/Pronunciation	The phonological rules are driving me crazy. I dislike mispronouncing words so I do what I can to approximate and get as close as possible to native-like pronunciation.	2	9
Speaking skill/Pronunciation	Pronouncing new words is still difficult.	3	7
Speaking skill/Pronunciation	but I'm not sure on the pronunciations	3	9

The desire for more pronunciation support is expressed by the participants several times in the group interview as the following extract illustrates.

00:38:44 PI: Just think of the difficulties that you have. What are the difficulties that you have and how would you like to see them be addressed?

00:38:50: Maybe go back to pronunciation every few classes just to, like, remind...

00:38:59 PI: Okay. Pronunciation. Everyone's nodding their head.

00:39:04: Maybe, like, practice reading words aloud.

00:39:06 PI: Okay.

00:39:08: It helps you just to learn how certain words are pronounced and just to get used to the speech sounds in Irish.

00:39:18 PI: Okay.

00:39:19: Sometimes I found it hard to remember words because I couldn't remember how they were specifically pronounced. I would have this image of how it was spelled in my mind but it never really stuck because I couldn't say it properly, until I heard it and I'd

go "oh, okay" and then I said it correctly but I would forget how to say it correctly later because I couldn't recall that image - the text in my brain.

00:39:42 PI: Okay.

00:39:44: It can be a bit tricky at times because in the course, the face-to-face class, we focused on communication, just being able to say it. But with Duolingo you have to be able to type it correctly, that could take time. It took me like three weeks to be able to type comhghairdeas

00:39:59: (group laughter)

The example above suggests primary and secondary contradictions with some of the technologies within the course's blend. This is discussed further under *students' reflections on tool use (L5SUAR1)*.

The existence of these internal contradiction has been shown in the discussion of L1 and L2 contradictions above.

The tag also functioned to identify students' reflection of their language level at a particular point in the course. Table 6.26 shows Learner 8 and Learner 2 reflecting on specific elements of their language level over different weeks.

Table 6.26 Coded segments for speaking skill and pronunciation tag (2)

Tag	Coded segment	Week	Learner
Speaking skill/Pronunciation	I can say hello successfully (I think)	1	8
Speaking skill/Pronunciation	I can have a remedial (like 2 year old style) conversation	2	8
Speaking skill/Pronunciation	I feel more confident speaking about my background and where I am from.	2	2
Speaking skill/Pronunciation	I'm feeling more comfortable with the vocabulary I'm saying	3	2

Additionally, some of the segments identified show again that the classroom interactions were viewed as having a positive impact on students' communicative ability as the extracts in Table 6.27 show.

Table 6.27 Coded segments for speaking skill and pronunciation tag (3)

Tag	Coded segment	Week	Learner
Speaking skill/Pronunciation	Conversations in class have been good for learning which phrases to use when, and how to pronounce them.	2	7
Speaking skill/Pronunciation	The large amount of time spent during class speaking with each other has been very helpful in achieving the goal above	2	5

Overall, this tag reveals that students were very concerned with the development of their pronunciation skill during the course. Importantly, it supports the assertion that was made above in the discussion of strategies and transferable skills that pronunciation, from the participants' perspectives played an important role in memorisation. The recall of memorised phrases is seen as the students' preferred strategy for engaging in communication at this point in their language development. Another area that was shown above to have an impact on memorisation of the language and the use of the language for communicative purposes was grammar. Grammar is discussed in more detail next.

Grammar

As was outlined in Section 5.1 little emphasis was placed on grammar at the beginning of the course. As the course progressed, grammar discussion became a part of certain classes and the teacher focused this discussion so that the object would be constructed socially. That is, students exploring the rules together through the language in order to scaffold classroom speaking practices. This exploration was only possible due to the students' practical experiential knowledge of the language as facilitated by the course's blend and the student's own competencies. This is well illustrated in the *object of activity* sections of the researcher's observation sheets (see Appendix Q).

In the first week the majority of the students were not as concerned with formal elements of the language's grammar though one student did forge ahead following a more traditional approach to language learning. This particular student had a strong background in language education and

approached the course with a similar approach used to study more widely spoken or studied European languages. In the first week the learner states that:

The verbs are giving me nightmares, and the prep pronouns.

Learner 9, Week 1

Importantly, again within the course's syllabus at this point no emphasis was placed on formal grammar study. These were points that the learner chose to focus on themselves. In the two subsequent weeks this learner then reflected on certain grammatical rules related to the use of lenition and eclipsis in Irish.

Table 6.28 Coded segments for grammar tag (1)

Tag	Coded segment	Week	Learner
Grammar	But I'm still not sure when I should implement eclipses.	2	9
Grammar	I'm feeling better about how and why of lenition and eclipses	3	9

In week two, there was little reflection on grammar at this juncture in the course by the students. This may reflect the researchers' instructions not to be overly concerned with all of the grammar and linguistic points that are present in the language they have been exposed to at this point in the course. The following segments illustrate the main grammar concerns of the participants at this point in the study;

Table 6.29 Coded segments for grammar tag (2)

Tag	Coded segment	Week	Learner
Grammar	I'm still uncertain about questions and use of the word "go"	2	10
Grammar	Ta and bí are still confusing	2	10
Grammar	They are things that I still could not get very	2	6
Grammar	I think I am learning certain words faster than the rules behind formulating a question or response.	2	7
Grammar	But I'm still not sure when I should implement eclipses.	2	9

As noted continuously throughout the researcher's observation notes, the incorrect use of the verb 'to be' persisted up until the end of the course among some students. This example highlights again that grammar was held as an object by students and was defined by their own choosing rather than through explicit instruction from the teacher. The example above also validates the findings of the researcher reported in Section 6.1.1 about the learner held objects in relations to grammar. The remaining extracts tagged with *Grammar* show which areas students reflect on having developed mid-way through the course.

Table 6.30 Coded segments for grammar tag (3)

Tag	Coded segment	Week	Learner
Grammar	I'm starting to understand the sentence structure a little more. It was definitely strange at first but again it's all starting to come together.	3	2
Grammar	The sentence structure is on the up-and-up!	3	2
Grammar	I think I'm starting to get the hang of the verb conjugations.	3	2
Grammar	it seems now that for the regular verbs conjugation I will not have too much difficulties.	3	6

Grammar	Certain grammatical constructs are challenging. It often takes me a while to remember which words I need to change in order to conjugate certain phrases I already know, for example conjugating "is maith leom X" to the third person	3	7
Grammar	I'm feeling better about how and why of lenition and eclipses	3	9

Again, it is unfortunate that more feedback sheets were not received during the course of the study. In order to gain further insight into this particular tag it is necessary to refer to the group interview. During the group interview the participants revealed that at the end of the course they felt that there was not enough focus on grammar formally within the course as the following extract from the group interview demonstrates.

00:44:44 PI: With the Irish language though, specifically, what was the biggest challenge for you?

00:44:55: Oh God, why would anybody make lenition and eclipses?

00:45:00: Those were challenging. I could hear a word and be like, "I don't know that word," only to find out it was just a 'g' stuck in front of a word I already know.

00:45:10: Even with the Duolingo grammar it was like, "okay, here you go" and gave a million different ways to know the rules and say, "see, now it's easy." Maybe I'm just weird but I don't really have the brain to remember all of them over the next couple of weeks.

00:45:27: Or all 77 prepositional pronouns. In a chart.

00:45:29: (group laughter)

00:45:30: If they were done just a little more sequentially I could deal with it but... It was definitely like every time eclipses or lenition came up and I didn't catch it or I didn't remember to type it in, I was like "ugh, Irish (inaudible)".

00:45:43: (group laughter)

00:45:45 PI: Eh... okay. Yeah, they're just a feature of the language. It is what it is, so...

00:45:53: You mentioned the prepositional pronouns. I went searching for them and found a page and I really found it helpful because I was always referring to it with, you know, 'orm' is that with or is that to? And then, those were a challenge for sure.

00:46:08: Yeah those were hard to memorise.

00:46:11 PI: So a bit more support there maybe?

00:46:13: Uh-huh. Because it's very different.

In summary, the discussion of segments identified with the grammar tag above illustrates that certain areas in the language presented students with persistent difficulty in their language learning journey. Particularly, phonetic changes that occur in the language in certain grammatical contexts for example; eclipsis and lenition. One reason this particular group may have been overly concerned with grammar is due to their backgrounds and the reputation of the host institution for attracting academic talent. As the participants put it themselves in the group interview;

00:36:26: There were times that, like, you asked me for a verb that I knew because of Duolingo. So it forced me to recall and strengthen that stuff.

00:36:35 PI: Okay. Would a more overt description of why things are happening and why I'm organising things the way they are be more helpful to you?

00:36:44: Yes.

00:36:46 PI: To see my logic behind it?

00:36:47: It's not that I... I...

00:36:50 PI: Yeah, okay.

00:36:51: I think that would depend on the group of people you have. We're obviously quite special. (laughing)

00:36:58: (group laughter)

The following section investigates the negative reflections of the participants based on their learning outcomes.

Negative reflections

The participants' negative reflections, as can be seen in Table 6.18, represent the least frequent of the tags used in the analysis of segments identified with code L5SUOB1. The segments for this tag show that at the beginning some students felt overwhelmed by all of the information that was presented to them.

Table 6.31 Coded segments for negative reflection tag (1)

Tag	Coded segment	Week	Learner
Negative Reflection	It's not that I'm uncertain about anything, but it's all just a lot to process after the first week	1	2
Negative Reflection	it's been a little overwhelming	1	2
Negative Reflection	Not ideal outcomes...	1	9
Negative Reflection	Like my students, more vocab = more problems = more headaches.	1	9

Cognitive overload is very likely to have occurred among the students during the early stages of the course. This was possibly impacted by the students' dual role of research participant and student. As a participant the students also had to engage in additional tasks in order to fulfil the study's methodological requirements. Considering that participants had a dual role to perform within the course while dealing with the various new technologies and the newness of the Irish language, it is not surprising that participants may have felt overwhelmed. This finding has methodological implications for future research as it highlights that the instrument for capturing participants' feedback and reflections needs to improved. It was also expressed in the group interview in that some participants felt that they did not receive adequate training in the prescribed tools as the following extract shows.

00:42:19: Showing, for example, what the different strategies would be for using these sites, like um, how would you use this? How would you use this? How would you use this? And then people like Learner 10 who haven't learned a language for a really long time and haven't used the technology and don't know how to apply it to their learning will be able to see, "oh, okay, I can do that." Or, "okay, that makes sense to me."

00:42:47 PI: So more training in metacognitive strategies to utilise these tools more effectively.

00:42:51: Well also scaffolding the technologies themselves. To introduce us to too many different technologies I think can overwhelm people. I think we all seem to have settled on things that we enjoy the most. And those are the ones we have kept with.

This is another important finding for this study and also a surprise to the researcher as training in the learning tools and artefacts featured regularly throughout the course. The course also began with training in the online tools before language instructions began. This finding suggests that a portion of every face-to-face class is required to maintain students' competence using these tools. This could potentially allow the teacher to build on their knowledge and explore the different platforms capabilities as a group.

Another extract from the group interview also illustrates that the question of time management and other responsibilities was something the participants reflected on as having a negative impact on their language learning outcomes.

00:27:29 PI Was it difficult to keep up with the course's workload and the assignments, forms etc?

00:27:49: Yes.

00:27:50: Yeah.

00:27:51 PI: So it was. Okay.

00:27:52: Not really for me.

00:27:54 PI: Okay so we'll go around. Why was it difficult or not difficult?

00:27:57: I think maybe because it was a class I didn't really plan to have until maybe the second week of classes here when it did start. And then I had to shift my schedule to accommodate studying for this class and making sure I'm prepared for each class and then I ended up failing, and all of those aspects and I eventually said you know I'm too far back so I might as well just...

00:28:26 PI: Cut your losses

00:28:32: I didn't want to cut this but then I said I'm too far behind and I'm not going to catch up.

00:28:34: I liked coming. I think there's still one recording that I haven't turned in but like the same way that I like doing Duolingo... there's no way to immediately find a quiet room on campus to record something and I spend 90% of my time on campus. And the other 10% is the hours from like 4am to 7am. So it was just hard for me to find that time and I also have a very poor schedule.

00:29:00 PI: Okay. Very busy.

00:29:07: One thing that was lost through my recording is that sometimes even though it takes like 30 seconds to make a recording. A little bit of planning goes into it but also just having that situation where you can just speak Irish freely clearly enough that your phone

can pick it up. Sometimes I'll be in my apartment thinking "will my roommate hear my speaking Irish to myself?" It was a little weird so I'd just wait sometimes. (laughing)

00:29:30: My roommates definitely heard me and definitely laughed at me.

00:29:31: (group laughter)

This has been highlighted previously under L4 Contradictions above. The following extracts provide insight into the participants' negative reflections in relation to time.

Table 6.32 Coded segments for negative reflection tag (2)

Tag	Coded segment	Week	Learner
Negative Reflection	I just wish I had more time to devote to it all!	2	2
Negative Reflection	The rules themselves are explained fine, but having more practice would be useful	2	4
Negative Reflection	It's amazing how much can be done in one hour and consequently, how lost one can be during the next class.	5	9

Learner 2 had particular problems attending class and maintaining punctuality during the course due to various other commitments. Learner 2 commented that missing class impacted on her ability to advance her pronunciation as the next segment shows.

Table 6.33 Coded segments for negative reflection tag (3)

Tag	Coded segment	Week	Learner
Negative Reflection	It makes me really nervous when I don't know what to say or if I mess something up. Then everything gets thrown off. So it makes it a little difficult to talk to other people in the class since I was so unsure of words and phrases on Friday.	2	2

The group in general though was very busy and this became particularly evident later in the course as illustrated previously in L4 Contradictions above and in particularly in Table 6.18.

The following extract from the one-to-one interview with Learner 1 illustrates that the course was enjoyable and not the reason for her dropping out. Learner 1 was among the first people to formally drop out due to other work-life commitment.

00:00:14: Learner 1: Because I was travelling so much and missing so much and missing so much of it so it was too hard for me to catch back up because I didn't even have any internet so I couldn't even do the lessons...

00:00:24: PI: The online stuff, yeah...

00:00:25: Learner 1: No... and then it just became... I do work full-time and it became too much to try to catch up on a week's worth of stuff and then stay current.

00:00:34: PI: Yeah. Yeah.

00:00:35: Learner 1: It was just too much.

00:00:37: PI: There was just too much going on in your life. Okay. So, in the time that you did spend on the course, do you feel... how do you feel that your skills within the Irish language developed? What can you tell me about that?

00:00:47: Learner 1: Well, I really loved it. I thought it was really fun. I looked forward to going to class and doing the exercises. Um... I at least got better, I learned something. I got better, you know? I understood the slender and the broad vowels. I understood some of the foundational things, I understood, finally, about the way that you use the verb 'to be'.

Finally, the negative reflection tag reveals that participants did not enjoy when certain online tools did not match up with class activities as the following extracts show;

Tag	Coded segment	Week	Learner
Negative Reflection	I think that this 'mixed message' between the online and class work is what caused some of the questions that were asked in class that went beyond speaking and listening.	4	9
Negative Reflection	We have questions related to what we find in Duolingo that aren't related to what we do in class (except for thematic vocabulary which also happen to be verbs, for example), which causes me personally to want to ask questions about Duolingo.	4	9

Exploration of the negative tag reveals several important insights about elements of the course's activity system that could be refined. Namely, that there needs to be more of a connect between the

online activity and the face-to-face classroom activities. The inclusions of these online tools in the course was to provide the students avenue with for self-directed learning. As these tools were 'off the shelf' technologies it was not always possible to align their various applications with the language course's syllabus. This is especially true for latter weeks in the course's design. This finding suggests that a very clear and explicit explanation should be provided to students to convince them of the value of using these tools independently.

Another important insight related to the training and scaffolding of the online tools. This was an area highlighted to the researcher at the conclusion of the pilot study and one which he had estimated to have accounted for in his course design. As mentioned, the facilitation of technology training and scaffolding with the online tools is something that should constitute a recurrent feature in a blended language course. Finally, the negative tag reveals that missing classes impacted on the students' development and this in turn leads to a lower engagement with certain online tools which are embedded in the classroom activities. Regular class attendance is critical if students are to make meaningful progress in their language learning regardless of the online tools that are available to them. The next section explores students' reflections related to specific tool usage. This is the final code that is discussed in the in this section of L5 contradictions.

L5SUAR1 Subjects' reflection on artefact and tool use

As mentioned under Level 1 Contradictions above, code L5SUAR1 was added to the coding scheme by the researcher in order to identify the students' reflections on artefact or tool use. The code was used a total of 34 times. The code reveals insights into the language course's blend and the students' disposition towards certain artefacts. It also reveals how students used artefacts and or tools in combination with one another. The majority of the segments identified in this code relate to the tool Duolingo in some way. The other items tagged with this code refer to the other artefact and tools that constituted the course's learning blend as designed by the teacher. The table below demonstrates the different tags used to organise the segments identified with code L5SUAR1.

Table 6.34 Frequency of tagged segments for code L5SUAR1

Tag	Frequency
Duolingo	17
General reflections on artefact use	6
Abair	4
SoundCloud	2
Anki	2
Other artefacts	3

As Table 6.34 shows, the most frequently reflected upon artefact by the participants was Duolingo. In general, participants reflected positively on Duolingo as a language learning resource as the following examples show.

Table 6.31 Coded segments for Duolingo tag (1)

Tag	Coded segment	Week	Learner
Duolingo	Duolingo has been a great resource and has also been fun to use	1	2
Duolingo	Duolingo was a helpful resource since it can be used in a variety of places and times	1	4
Duolingo	Practicing on Duolingo everyday has helped me become accustomed to the language quickly and is especially helpful because it keeps Irish on my mind between class periods, so I always feel ready when going to class.	1	7
Duolingo	I really like having the different resources on my phone. I don't have an excuse to not practice. I took the bus to work the other day and used Duolingo the entire 25min ride, it was great!	2	2
Duolingo	Honestly, I'm surprised at how much I retain from the Duolingo I started working on a few weeks ago.	2	2
Duolingo	Regular Duolingo assignments are helpful.	3	10
Duolingo	I like that it notifies me to keep practicing.	3	2

Duolingo	I have been trying to use the Duolingo course more frequently, which has been encouraged by having specific unit goals. In addition, I feel inspired to use it more when looking at the course leaderboards and understanding how much I am using it compared to everyone else	3	4
Duolingo	I did like 10 duolingo sections in one day and it actually helped more than I expected it to.	5	8

The subjects are not without criticism of the artefact though and readily voiced their criticism of the platform. Extracts from the students' reflective sheets illustrating this sentiment are provided in Table 6.35.

Table 6.35 Coded segments for Duolingo tag (2)

Tag	Coded segment	Week	Learner
Duolingo	I would like the Duolingo material to have sound bytes for all of the material on its site. It would help a lot for pronunciation.	1	1
Duolingo	The Duolingo course itself could be improved as far as listening practice goes, but that is a different matter.	1	4
Duolingo	The Duolingo has some odd phrasing which could be good for catching 'rote' answers, but 'I pay for the girl' sounds really bizarre, and "She eats a meal without tea.' Weirdness. If these are culturally appropriate, okay, but to my ears, it's like 'I would never say that!'	1	9
Duolingo	Duolingo sentences, really	3	9

The segments in Table 6.35 show various contradictions manifesting as disturbances and tensions in the activity system. These disturbances and tensions are similar to those detailed in the discussions under the various levels of contradictions above. In extracts from the group interview the participants expressed the following about using Duolingo;

00:11:35 PI: Yeah, yeah. Okay. What did you think of the Duolingo and being part of the Duolingo classroom?

00:11:44: I liked that. It kept me accountable. (laughing) Well, yeah.

00:11:47: (group laughter)

00:11:50: It tried to keep me accountable then I would realise I had things to do.

00:11:55: It could keep you accountable in between the periods because it would tell you you had to do this by... pretty soon. But if it reminded you, like, three days after you get the assignment, I found myself doing stuff near the end before it was due sometimes. You know, it can just sorta slip your mind.

00:12:12 PI: Yeah, indeed. Em...

00:12:13: And we keep getting emails randomly from Duolingo everyday, so I remembered. And um... I actually did manage to go on everyday until recently.

00:12:24: (group laughter)

00:12:25 PI: Well we all understand why because everyone is so busy with mid-terms, isn't it? [General agreement] Em... so actually using the app. Do you feel it impacted on your different skills in the language or... tell me how what impact or how important it was for you to use the app.

00:12:44: There was definitely a big impact. Um... I think the fact that I was using it everyday helped me think about Irish everyday. And um... even though I was typing, reading and listening instead of speaking it just helped me learn the words and just keep it on my mind, so um... otherwise I was just going to class two days a week and I probably wouldn't get very far but with this it was a more continued learning experience.

This extract illustrates the important role that this artefact played in the course's blend. We can see that participants primarily used this particular artefact to interact with the target language on the go. The design and availability of the artefact is one of the primary advantages of this particular technology platform with the blend.

00:18:26 PI: So when you were using Duolingo, where were you using Duolingo?

00:18:34: At home on the laptop.

00:18:35 PI: At home on the laptop?

00:18:36: Or in my office.

00:18:38: Phone, mostly.

00:18:39 PI: Phone? Laptop? Okay.

00:18:44: If I was at school and I didn't have my laptop and I really needed to see the grammar book I would go on the Chrome browser on my phone, put in Duolingo.com and request the desktop version of the page. Because it's designed for your phone at the same time but it's an obscure way to use it but it did get me the grammar book also.

00:19:06 PI: Yeah, yeah. Okay. That's an interesting get around there.

00:19:10: It's a lot of steps.

We can see from the extract above that the artefact did not provide the students with a 'perfect' method to learn and interact with the target language. To put it idiomatically it was a not 'silver bullet' and it was recognised as such by the students. The divergence between how the app version of Duolingo and the desktop version functioned in terms of grammar explanation lead students to create interesting work arounds to mediate certain drawbacks.

The combination of tools and artefacts with one another has been shown in this chapter to be a commonly occurring activity during the study. The next tag *General reflections on artefact use* again shows that the participants combined tools and artefacts in various ways in order to pursue their language learning objectives. Table 6.36 next provides an overview of the students' reflections of using different artefacts together.

Table 6.36 Coded segments for general reflections on artefact use tag (1)

Tag	Coded segment	Week	Learner		Le
General reflections on artefact use	I feel like I'm starting to recognize the words a bit when I'm reading through the book pages and Duolingo.	1	2		
General reflections on artefact use	and reinforcement from Duolingo and Soundcloud.	1	4		

Other segments identified with this tag show the students' reflections on their actions combining the artefacts and tools with one another. Furthermore, certain IT literacy issues in the target language, were identified in these tagged segments. This can be seen in Table 6.37.

Table 6.37 Coded segments for general reflections on artefact use tag (2)

Tag	Coded segment	Week	Learner
General reflections on artefact use	but it's hard to type in all the words with the accents	1	1
General reflections on artefact use	The tools are useful.	2	9
General reflections on artefact use	I feel that I have been starting to become more comfortable in the language to a certain extent, which was helped a lot by reading while listening. Hearing authentic, relatively complex speech while being able to follow along has always been an effective learning strategy for me.	3	4
General reflections on artefact use	The material is getting more in-depth but that's to be expected.	3	9

The remaining segments identified with this tag relate to the following artefacts; Abair.ie, Anki intelligent flashcards, SoundCloud and other online learning resources. These other resources included Irish language radio and online dictionaries. These remaining segments generally show students' positive perception towards the aforementioned artefacts. Table 6.38 provides a complete overview of these segments below.

Table 6.38 Coded segments for general reflections on artefact use tag (3)

Tag	Coded segment	Week	Learner
Abair	The Abair website did help a lot with this as did the soundcloud recordings.	1	2
Abair	Abair.ie is also awesome	2	2
Abair	Abair.ie helps,	5	8
Abair	but the abair website was also of great use	1	4

SoundCloud	the soundcloud files were helpful for remembering the phrases	1	4
SoundCloud	The soundcloud recording really helped	3	2
Anki	The Anki cards were helpful.	1	9
Anki	The Anki deck in particular is very useful, , and is something I have used for other languages.	2	4
Other	Nemo but I haven't worked with it.	1	9
Other	(wikitionary)For Irish, it can quickly list the forms and when things become lenited or eclipsed, so it is useful when I'm not sure about something.	3	4
Other	And listening to Irish language internet is not the same because I have no clue what they are saying	1	1

This concludes the discussion of contradictions and student reflections on language learning outcomes and artefact use as they emerged at various levels within the blended language course's activity system. The following section concludes this chapter by considering the analysis of the BLL course's activity systems in light of the study's primary research question.

6.5 Summary and conclusions

The analysis of data captured during the implementation of *Introduction to Irish* reveals that contradictions emerged at various levels within the BLL course's activity system. Primary contradictions were seen to emerge predominantly in relation to digital tools within the course's blend. In order to overcome these contradictions, participants combined various artefacts and tools in novel ways to address their own difficulties and learning objects. These combinations included the use of physical artefacts with digital technologies. Students engaged in this activity in order to pursue their individual learning objectives. This resulted in the generation of new sub-activity systems that were unplanned in the course's design. These contradictions manifested themselves as tertiary level contradiction within the course's overall activity system as discussed in Section 6.4.3. This is an important finding as it illustrates that ab initio language learners operating within the BLL environment of *Introduction to Irish* where afforded many avenues to pursue predefined topics in the course in

ways that were relevant to their own interests and motivations. This in turn points to the important role that contradictions can play within a BLL environment in generating new forms of learning activity. It can be seen how a latent primary contradiction within a digital tool was a catalyst for change and development within the larger activity system of the course at micro and meso levels. The richness of the course's blended artefacts and technologies encouraged multiple types of learning activity specific to the needs of the participants. This finding is a real world example showing that contradictions play a fundamental role in the exercise and development of learner autonomy. This supports Blin and Jalkanen's (2014) fourth CHAT-based principle as described in Section 5.1.

As mentioned, primary contradiction resulted in secondary and tertiary level contradictions. Secondary level contradictions emerged between various elements of the course's activity system for subjects pursuing their language learning objectives. Contradictions at this level became more common as the historical and social context of the course matured. In Section 6.4.2 above, the analysis of these contradictions reveal that they emerged largely between the subject, the tools and artefacts, and the subject and course's learning objects. This was largely to facilitate students' development of their aural and oral skills. Fewer contradictions emerged between the subject and their community. This reveals that the ab initio learners largely worked alone outside of the physical classroom. The social construction of knowledge largely occurred during the face-to-face classes. This is an important consideration for instructional designers planning BLL courses at ab initio level using the CHAT-based design principle proposed by Blin and Jalkanen's.

The analysis of the contradictions that emerged reveals that the facilitation of Blin and Jalkanen's (ibid) second principle, that there should be a rich horizontal division was not something which could be easily facilitated in *Introduction to Irish*. This was as a result of the few opportunities the students had to engage with other members of the class outside of the physical classroom, either physically or otherwise such as communication through online tools (Duolingo, email, Soundcloud etc...). The decision not to include online interactions as a part of the courses activities was taken because of time

constraints on the participants. Additionally, as the larger cultural historical context of the course was situated in an anglophonic environment, there was little passive input in target language from signage or from native speakers. This limited the participants' opportunities to use the language for any practical purposes outside of the classroom.

The larger activity system of the research site (CMU), in which the language course was situated, had certain negative implications for the cultural historical evolution of the *Introduction to Irish* course. The influence of the study's larger context becomes particularly evident in later weeks. These quarternary contradictions, described in Section 6.4.4, illustrate that the course's position within the larger context of the lives of the research participants was not given the same level of priority as other areas of their professional and academic lives. This is not a surprising finding as the course was not offered for credit or any other incentive. The imbalance between the priority given to the language course's activity system and other competing activity systems could be improved by incorporating the course into an official activity system of the university. Indeed the inclusion of an Irish language course such as *Introduction to Irish* would fit the aims of the *Carnegie Plan* as mentioned in Section 5.2.

The Level 5 contradictions that were identified provide insight into the participants' attitudes toward the blend of *Introduction to Irish* and the participants' reflections on their learning outcomes. Overall, the analysis of these codes identifies that students perceived the language course to be a highly enjoyable learning experience. Segments identified with L5 codes also reveal that students enjoyed using multiple artefacts and tools in combination with one another to pursue their learning objects. In particular, the Duolingo language learning platform is identified as the students' principle learning resource for independent exploration of the language outside of the classroom. As mentioned, this tool was used in combination with other artefacts and in turn the increased interaction with the target language outside of the face-to-face environment positively impacted on classroom exercises and cooperative tasks. Unfortunately, it is not possible to determine whether time spent on Duolingo was a key factor in students pursuing the language outside of the classroom or whether they were simply

more motivated to spend time engaged in language learning using this tool. The combination of the tools was primarily done to access additional aural input in the language with the object of developing listening and pronunciation tools.

Finally, within the BLL activity system the ab initio language learners did not create a large amount of language learning artefacts to help them pursue their own and the course's learning objectives. This can be seen as a result of the participants' language level. It is also seen as a result of the richness of the technologies within the course's blend to facilitate various types of object-orientated learning. The finding that language learning

Chapter 7 Summary and conclusions

This concluding chapter revisits the study's main research question and sub-questions in order to clearly highlight the study's findings to the reader. Additionally, this chapter highlights the study's limitations and strengths. Finally, the chapter identifies directions for future research.

7.1 Main research question

As noted in the introduction to this thesis, there is little in the way of specific advice for the creation and implementation of an ab initio *blended language learning* (BLL) course (see Section 1.2). Even as digital technology continues to further penetrate every aspect of daily life and as the affordances of technology for enhancing educational environments are becoming increasingly prominent, there is a lack of pedagogical guidance in relation to the provision of language courses generally (Council of the European Union, 2014, Directorate-General of Education and Culture, 2016). Against the backdrop of this continuing trend of technological integration within learning environments, this thesis set out to investigate factors that influence or hamper the implementation of a technologically rich language course for ab initio language learners.

The primary research question that directed the overall focus of the research was:

- What contradictions emerge in an ab initio blended language learning course?

In order to pursue the investigation of the primary research question the author designed a BLL course. This was done using freely available 'off-the-shelf' language learning technologies, and other technologies with uses for language learning, in combination with more traditional language learning resources to create a learning environment that would support participants in their individual and group efforts to acquire the Irish language. During the design of this course the author also incorporated the *Common European Framework of Reference for Languages* (CEFR) into the course's weekly learning objects in line with recommendations from BLL researchers (Blin and Jalkanen, 2014, Ó Ciardúbháin and Nic Giolla Mhichíl, 2014). This was done in order to create a more open learning

environment that facilitated not only the individual learning preferences of the study's participants but also to reflect natural and practical language use in real contexts.

The empirical analysis, beginning in Chapter 5 and concluding in Chapter 6, described the complex BLL environment that emerged as a part of the ab initio Irish language course: *Introduction to Irish*. This BLL environment was facilitated by a diverse selection of learning technologies aimed at developing students' oral and aural competence in the target language. These technologies facilitated this development by engaging students' individual learning preferences. Additionally, they allowed students to pursue their individual learning objects as well as the learning objects as defined in the course's syllabus. The empirical analysis reveals that contradictions emerged at various levels over the duration of the six-week language course. One of the main contradictions to emerge during the study arises as a consequence of external pressures on participants that stemmed from the larger context in which the course was situated. External pressures resulted in several negative outcomes for students such as students dropping out of the course or missing out on face-to-face classes. Other negative consequences of the effects of these external pressures relate to the non-completion of speaking assignments as set by the language teacher and a drop in students' engagement with online learning resources in the latter weeks of the course. This in turn had a negative impact on the teacher's planned classroom activities as it necessitated the use of more traditional approaches by the teacher. This was done in order to ensure the course progressed according to the CEFR milestones identified at the beginning of the study.

Other prominent contradictions that emerged related predominantly to tool and artefact use by the participants. These contradictions were seen to impact on the learners' activity throughout the course and spurred the generation of more complex activity systems in order to resolve lower level contradictions. The empirical analysis revealed that the ab initio students worked predominantly in isolation outside of the classroom. This individual work was seen as an important component in utilising the language as a part of larger social group within the physical classroom. This division of

labour is perhaps a consequence of the larger Anglophonic environment in which the course was set. Additionally, this is potentially a reflection of the participants' ab initio language level as the students' exposure to the language was limited to the classroom exercises, review of traditional teaching materials and online interactions with the language through apps such as Duolingo.

7.2 Sub-research questions

The focus of the research was narrowed using sub-research questions to direct the authors' investigation of the BLL course's activity system. The sub-questions were:

- What learning objects did the subjects pursue over the duration of the ab initio BLL course?
- What actions did the subjects engage in to pursue their learning objects?
- What elements of the activity system contributed positively to the subjects' learning outcomes?
- What specific levels of contradictions emerge over the duration of the ab initio language course?

Each of these sub-questions are now discussed.

7.2.1 Participants' objects

What learning objects did the subjects pursue over the duration of the ab initio BLL course?

The empirical analysis of the students' reflective sheets in Chapter 6 reveals that the participants' learning objects mostly aligned with the objects that were included in the design of the course's syllabus: the CEFR milestones (See Section 5.1). This is not to say that there was no divergence between the predefined objects of the course's syllabus and the individual's learning objects. From a temporal perspective, the subjects' objects begin to become more defined and related more to personal needs as the course progressed and as the subjects became more familiar with the Irish language. Additionally, as subjects began to consolidate their knowledge of previously acquired forms of the language, the subjects modified their expressions and expanded on lower-level or simpler sentence structure to make the language more relevant to their personal needs. Examples of this are

more use of the emphatic form of words in Irish and returning questions asked of them to the initial inquirer (usually the teacher) as well as using more specialised vocabulary related to their family, their field of study and their individual interests.

The primary learning object cited by the participants was the language's pronunciation system and the development of their speaking skill and their communicative competence. The author posits that these objects were influenced by the expressed purpose of the course, to develop communicative competence in the target language as it related to the levels defined by the CEFR (A1). Furthermore, the emphasis placed on communication in the target language during classroom exercises is another factor influencing these conscious objects held by the participants over the course's six-week duration. Revision of topics covered in the course was frequently identified as a learning object by the students. It was perceived that language recall would facilitate communication and the development of students speaking skills. Developing one's recall ability through the independent study of the target language was seen by the participants to further facilitate social interaction.

Grammar was seen as an important element by the participants, though explicitly studying the Irish language's formal grammar rules did not emerge as frequently as an object for the students over the duration of the study. This is not to say that the participants were not concerned with studying the language's grammar. They were at times in the course quite focused with the language's grammar particularly while learning to conjugate tenses. This finding suggests that the participants focused their learning activity on elements of the language's grammar when they deemed it advantageous to do so. This permitted them to accelerate their acquisition of certain portions of the language to pursue the overall goal of using the language for communicative purposes. This finding also suggests that language courses at ab initio level should focus only on grammar where it can facilitate students in overcoming certain language items, such as a grammar rule or pronunciation, that are not as easily acquired through natural language exposure leading to language acquisition.

Other objects held by the participants over the duration of the language course related to; the language's orthography, improvement of metacognitive strategies, and general language learning goals. Interestingly, although the participants focused on communication, the improvement of subjects' aural comprehension skill was not identified frequently occurring as a conscious object held by the participants. This is a particularly interesting finding when contrasted with the participants' actions as they frequently engaged in listening actions in order to acquire language items. The participants' actions are discussed next.

7.2.2 Participants' actions

What actions did the subjects engage in to pursue their learning objects?

The participants engaged in a variety of actions in order to pursue the aforementioned objects. The primary actions engaged in by the student with the view to facilitating their communicative competence was to revise, practice or memorise language items such as vocabulary or commonly occurring phrases related to the course's weekly topics. The digital language learning technologies and indeed the traditional learning technologies such as the teacher handouts were observed to play a very important role in facilitating these actions. These are discussed in more detail in Section 7.2.3.

Speaking was the second most frequently identified action performed by participants within the language course. Specifically, this action occurred mostly within the physical classroom when the participants had access to others members of the community that held similar learning objects. This is an unsurprising finding of the study, but it highlights the importance of providing a physical or real world space that facilitates the social use of the target language and one which provides support and structure for students to engage their speaking skill. This finding illustrates the benefit of using a blended format to free up class time to allow for more valuable communication exercises to be pursued in the ab initio BLL course. These exercises in turn provided valuable opportunities for the consolidation of acquired linguistic forms. Additionally, these exercises provided the language teacher with valuable opportunities to help develop students' pronunciation through individual feedback. This was accomplished by the teacher as he interacted with the students on a one to one basis inside and

outside the classroom. This allowed the teacher to provide students with feedback and input on their individual challenges. It additionally permitted the students to ask questions of the teacher informally or without the pressure of asking a question in front of the entire class which resulted in a more casual approach to acquiring information related to the language. This permitted the teacher to act as a mentor and forge good-natured and friendly relationships with each student.

The third most commonly occurring action that was identified was listening. As mentioned in Section 7.2.1, although the students did not hold the development of the aural skill as a conscious object, the subjects did engage in listening actions frequently throughout the course as a way of acquiring the language and better facilitating their ability to use the language for communicative purposes. Contextually, the participants listened to the language outside of the classroom more than they spoke the language. Listening was also facilitated in the classroom by the language teacher as a part of structured listening and speaking exercises. As mentioned students' relied on a variety of artefacts to facilitate their listening actions such as using the Duolingo app. This app by itself did not provide the students with a satisfactory level of aural input and this was expressed by the students during the course. As a consequence of this, the course teacher provided additional aural input using the online audio distribution platform (SoundCloud) and by including audio with the intelligent flashcards on the Anki platform. During the participants' interactions with these digital artefacts they also used more traditional learning artefacts such as the teacher handouts, dialog transcripts and classroom notes to visualise the language as they listened to it.

The use of technology in general constituted another major component of participants actions during the course. The findings suggest that the subjects' interacted with general technology as a part of the language course. It also suggests that the inclusion of digital technology as a part of the language blend facilitated students' general interaction with Irish language. Contextually, general technology use occurred outside of the classroom. The actions that occurred here generally related to looking up words and pronunciations and were usually observed as a type of stepping stone action in order to

engage in actions or to pursue more advanced objects with the mental hierarchy of the students' overall learning objects.

The other remaining actions that the participants performed mostly relate to reading and writing. These actions obviously occurred more than what was identified in Section 6.2, as the students read the Irish language while using CALL tools such as Duolingo and Anki as well as more traditional learning artefacts such as teacher handouts and the blackboard. Students also engage in writing notes and typing the language on Duolingo. This finding illustrates that the participants did not overly focus on the development of these skills over the duration of the language course. Finally, actions such as asking, discussing, sharing and making were identified as sporadic or one-off actions performed by the learners during the course. This finding suggests that the participants, due to their ab initio language level, were heavily reliant on the design of the course and input from the language teacher to interact with and acquire the language, more than they were reliant on the creation of their own learning artefacts or the artefacts of other learners. This finding also suggests that in ab initio language level courses the division of labour within the activity system is more vertical than horizontal when it comes to the intentional study of the language outside of the classroom. Sfard (1998) proposes two metaphors for learning and the dangers of favouring one over the other. These metaphors are the acquisition metaphor (AM) and participation metaphor (PM). According to Sfard (ibid) acquisition is human learning has been defined as the act of acquiring or gaining some sort of knowledge and that this is a final 'state of knowing' achieved by the learning. This metaphor can be seen to support a vertical division of labour as outlined here in that the teacher specifies what the students are to learn and what they are directed to achieve Sfard's (ibid: 6) participation metaphor is informed by more recent development in Learning Theory and states that:

While the concept of acquisition implies that there is a clear end point to the process of learning, the new terminology leaves no room for halting signals. Moreover, the ongoing learning activities are never considered separately from the context within which they take place. The context, in its turn, is rich and multifarious, and its importance is pronounced by talk about situatedness, contextuality, cultural embeddedness, and social mediation. The set of new key words that, along with the noun "practice," prominently

features the terms "discourse" and "communication" suggests that the learner should be viewed as a person interested in participation in certain kinds of activities rather than in accumulating private possessions.

The participation metaphor can be seen to support a horizontal division of labour as participation is synonymous being a part of a greater whole. Sfard's (ibid: 6) affirms vertical and horizontal division of labour both play integral roles in developing a learners competencies and knowledge:

While AM emphasizes the inward movement of the object known as knowledge, PM gives prominence to the aspect of mutuality characteristic of the part-whole relation. Indeed, PM makes salient the dialectic nature of the learning interaction: The whole and the parts affect and inform each other. On one hand, the very existence of the whole is fully dependent on the parts. On the other hand, whereas the AM stresses the way in which possession determines the identity of the possessor, the PM implies that the identity of an individual, like an identity of a living organ, is a function of his or her being (or becoming) a part of a greater entity. Thus, talk about the "stand-alone learner" and "decontextualized learning" becomes as pointless as the attempts to define lungs or muscles without a reference to the living body within which they both exist and function.

7.2.3 Positive elements within the BLL activity system

What elements of the activity system contributed positively to the subjects' learning outcomes?

The empirical analysis presented in Chapter 6 also identified participants' reflections on learning outcomes and their use of certain tools and artefacts. Specifically, participants reflected that they enjoyed using the language learning technologies (i.e. tools and artefacts) and the BLL course's layout in general. They found that the inclusion of the technologies in the learning blend contributed positively to their overall language development and maintained their interest and motivation in pursuing their study of the Irish language. Importantly, the participants perceived the blend of the technologies and the face-to-face components of the course to be an enjoyable learning experience. At the conclusion of the course the participants were satisfied with the progress that they had made in their language journey and felt confident in the level that they had attained in the language. Chapter 6 also identifies other mediating components that played a positive role in participants' language learning activity (i.e. the course's rules and division of labour). Additionally, Chapter 6 identified how certain contexts facilitate certain learning activities over other.

The discussions in the previous chapter shows that the tools and artefacts played different yet important roles with the course's blend that in turn supported language learning activity. The Learning Management System (LMS), SpeakApps, played a vital role in acting as a central hub to coordinate the classes' weekly object-orientated activity. It functioned to disseminate general instructions for completion of tasks in chronological order. It also facilitated the dissemination of language learning resources (including directions for their use) and other cultural resources. The participants observed that the organisation of this system was helpful to them in directing their object-orientated actions over the duration of the language course. One criticism of the platform conveyed by the participants to the researcher during the focus group interview related to the platform's aesthetics appeal. The students expressed that the visual design of the LMS layout was not appealing to them and did not encourage them to explore the platform's additional features. This finding highlights the important role user interface and user experience design play in encouraging student to use learning technologies.

Whereas the LMS functioned to guide students' efforts or to define objects for the participants it seems that the majority of the participants' interaction with the language online 'on the go' was through the Duolingo language learning platform. The participants stated that this app assisted them greatly in their exploration of the target language. One criticism of the inclusion of this app in the course's blend by the participants was that it did not always match up with the course's weekly topics. Additionally, students noted in the group interview that the app did not always provide a sufficient or satisfactory amount of audio input via the target language. Overall, the participants enjoyed using the app to study the Irish language. The finding that there is a mismatch between the levels within the Duolingo Irish course and the objects layout out in the *Introduction to Irish* course suggests that the Duolingo course would be more readily integrated with a BLL environment if it was laid out according to the CEFR. This is currently being pursued by the content contributors of the Irish language course on Duolingo. The author is a contributor to this course on the platform.

From the perspective of the language teacher, the Duolingo Schools platform proved to be an invaluable tool in monitoring the students use of the Irish course on Duolingo. It was possible to use learner analytics to inform the language teacher's planning efforts and in turn to modify the 'official' or defined object of their online actions with the language learning platform. By combining Duolingo Schools with the SpeakApps LMS it was possible to gain different perspectives from different technology platforms on students' actions outside the classroom and subsequently gain a fuller picture of the students' activities from week to week. It is interesting to note the correlation between the student's Duolingo level and their proficiency in the target language at the end of the course as determined by the external expert and CEFR assessor (see Section 6.3 and Appendix R). Students who had completed more of the Duolingo course performed better than those who did not interact with the tool as often. The tool also gave an indication as to the commitment or motivation levels of the participants over the time frame of the course.

Participants pursued the development of their aural comprehension individually outside of the classroom, by listening to the teacher's recorded monologues and vocabulary lists. Additionally, the language teacher also provided the students with additional audio input by including sound with the digital flashcards on Anki as already mentioned in Section 7.2.2 above. The participants reported replaying audio segments repeatedly and that they enjoyed listening to the language. Especially while reading along while listening to the language. The pronunciation of the language was a cause of difficulty and consternation for some of the participants but sufficient multimodal input provided by the different technologies proved to support the development of students' aural competencies and in turn their oral development.

The SoundCloud recordings produced by the teacher were viewed as valuable learning artefacts by the students. Conversely, the production of recorded monologues by the participants was not given the same priority by the students in their language learning activity. This finding suggests that the

production of such solicited recordings at the beginning of an ab initio BLL course be delayed until students feel more confident in speaking the target language.

The assessment at the end of the six-week language course and the opinions expressed by the participants in the group interview, and in the individual interviews, illustrate the benefits of approaching language education that is object-orientated. Participants felt confident in the level of the language that they had achieved even stating that they felt they had achieved a higher level than what their actual CEFR level was in reality. This finding identifies that the BLL environment supported ab initio learners throughout their learning experience and provided a solid base with which to spur learners to continue their study of the language independently. Additionally, it was identified that the participants were capable of using multiple learning artefacts and tools in combination with one another in order to pursue their own object-orientated actions. This was also found to be true of those participants who stated at the beginning of the course that they had not used computers for language learning purposes prior to the study.

Based on the discussion of the findings related to the study's primary research question and different sub-questions the author recommends that the design of an ab initio BLL course should provide students with a learning tool box, of both digital and physical artefacts, to facilitate the exploration of the target language. The learning artefacts and tools within this tool box should facilitate as much repetitious activity as possible that is supported multimodally. In particular, the digital environment should provide students with as much varied audio input as possible. Participants should be mentored or guided in creating the right blend for themselves, building on the basic blend highlighted in the LMS. Students should be informed as well as to the fallibility of the activity system and that should they require amendments or additional learning resources that they should inform the teacher. A weekly feedback review could be set up such as desired learning resources or guidance from the teacher in relation to a specific topic. The reflective sheets facilitated this to a degree in this study. Penultimately, within the physical classroom communal activity should predominately focus on

engaging learners' listening and speaking skills through structured listening exercise, rehearsed conversations, and by creating opportunities for spontaneous interaction between the students in the target language. Finally, the plan for the face-to-face class should not seek to manage every minute of time that is available. Rather it should include some free time to allow students to ask questions of the teacher and additionally to allow the class to evolve in a more natural way according to the students' areas of interest.

7.3 Methodological findings

The empirical analysis presented in Chapter 5 and Chapter 6 illustrates that Blin's (2005) CHAT-based methodological approach to studying a complex and technologically rich language learning environment can be adapted to the study of different language courses at different levels as defined by the CEFR. Utilizing Blin's (ibid) approach to study the ab initio BLL course, *Introduction to Irish*, the author was able to capture participants' various experiences and perspectives. Additionally, from a temporal perspective this approach allowed the author to access data that showed how the activity system of the course evolved over its six-week timeframe. The finding that these CHAT-based research instruments that are adapted from Blin's (ibid) original instruments can be used to study ab initio BLL environments is possibly the most important finding of this study. This finding highlights an established CHAT-based approach that can be used in the study of different BLL environments. The lack of methodological guidance in relation to the implementation of CHAT principles in the study of educational environments has been noted extensively in this thesis (See Chapter 4).

Practically, Blin's (2005) CHAT-based coding scheme enabled the author to construct an accurate representational model of the course's activity system from the perspective of the participants. The design of the CHAT-based observation sheets facilitated quick comparison between the participants' feedback and the language teacher's own experience of the course. Specifically, by using CHAT principles and terminology to design the study's primary research instruments the author was able to identify the different activity system components that constituted the course's overall activity system and weekly sub-activity systems. Furthermore, the CHAT-based observation sheets also facilitated the

language teacher's lesson planning activity and allowed him to integrate the analytics from the online language learning tools with the qualitative narrative of the teacher's face-to-face observation. This thesis contributes to the further development of Blin's (ibid) original CHAT-based methodological approach by clearly illustrating through the study's audit trail, the methodological and practical decisions that were made at each phase in the research design. The author hopes that the account of adapting the CHAT-based approach may assist future researchers in adopting this CHAT-based methodology and developing it further.

Constructing a representational model of the overall activity system of the BLL course subsequently enabled the author to pursue the study's primary research question. The CHAT-based coding scheme facilitated the author in drilling up and analysing the activity system of the course from the micro, meso and macro levels. This greatly expedited the identification of systemic contradictions within the BLL course over its six-week duration. Finally, the study revealed that the identification of fifth level contradictions, the level added by Blin (ibid) to Engeström's four levels of contradictions, is useful in identifying participants' reflections on tools and artefact use as well as reflections on learning outcomes.

7.4 Summary of findings

This section provides a concise summary of the study's findings based on empirical analysis (see Chapter 6) and this chapter's discussion of the study's research question and sub-questions. The study finds that:

- The ab initio language learners within this BLL course relied heavily on the topics defined by the course's syllabus and directions from the teacher in identifying learning objects. The Ab initio Irish language learners focused predominantly on developing their pronunciation and aural competencies in the target language. These objects were perceived by the learners as crucial to successful oral production. This was also the overall goal of the planned language learning activity

within the object-centred BLL course as designed by language teacher/researcher (see Section 5.1).

- The context of the learning activity determined what tools and artefacts were used by the learners to pursue their learning objects. Outside of the physical classroom the ab initio learners predominantly work independently, using that time to prepare and rehearse for communicative situations provided by the face-to-face classes. The learners also engaged others outside of the course in their personal hours with facts about the language and spoken examples of the language.
- The ab initio learners choose different technologies included in the blended learning environments to fit their particular language learning needs. Throughout the course, the learners generally engaged with prescribed tasks. This was especially true of technologies which were accessible 'on the go', such as Duolingo or Anki Intelligent Flashcards. The selections made by the learners was not often unique to one individual at the beginning of the course. As the course progressed however, the ab initio learners' personal goals or objects become more refined. As the ab initio learners' objects developed the types of tools and artefacts they used to pursue them changed (see Section 6.1.2 and 6.1.4). New forms of activity emerged as the learners' combined tools and artefacts to fulfil the need of more culturally advanced objects. This finding illustrates that the ab initio learners were capable of navigating a complex learning environment comprised of many different types of learning resources to pursue socially orientate face-to-face activity. These technologies also facilitate students in engaging in language output with the face-to-face classroom which is identified in Section 2.2.4 as a crucial activity in the SLA process.
- The ab initio learners combined digital tools with more traditional learning resources such as notes, teacher handouts etc... to augment the ability of a digital tools and to enhance traditional learning resource. This finding suggests that the BLL course, which was object-orientated in its instructional approach, was effective in facilitating the development of student autonomy as the students did not receive instruction from the teacher to do this. This mixture of tools available to

the learners facilitated the development of learner autonomy in ab initio BLL courses. This is possibly one of the most important findings of the study related to BLL research. It could be argued that the majority of the research cited in chapter one Section 2.1 focus on Blended teaching rather than BL. BL within this study was ultimately determined by the participants individual choice to overcome individual challenges. According to Blin (2005: 267), a student's capacity to resolve contradictions is an observable attribute of learner autonomy. Blin's (ibid) CHAT-based coding scheme was instrumental in identifying effective artefacts and tools in the course's blend.

- The ab initio learners within the course did not produce as many artefacts as more advanced learners even with direction from the teacher. The research findings suggest that external activity systems related to work, school or social commitments disrupted certain learners' language progression (see Section 6.4.4). This problem was primarily a result of the course's position within the over system of the host institution. As the course was voluntary in nature it was necessary to fit times around all participants' which was not always feasible (see Appendix U and V). This finding suggests solicited documents from the language learners should be delayed until later sections in the course.
- Within the ab initio BLL course, continuous training in the technological resources was required by ab initio language learner. Continuous training was required to ensure that the learners were capable of using the different technologies. Additionally, this training also provided an important to highlight the limitations or weaknesses identified within the technologies to the learners (see Appendix U and V)..

It is possible to determine principles for use in the design and implementation of future iteration of the ab initio BLL courses based on these findings. These principles are now discussed in Section 7.6.

7.5 Recommendations for ab initio BLL course design

As noted by the author throughout this thesis there is limited guidance available that specifically pertains to the design and implementations of ab initio BLL course. This is particularly true in relation

to 'minority languages' such as Irish. Based on the theoretical and empirical arguments put forth in this thesis, the author proposes the following principles for the design of ab initio BLL courses:

Principle 1: Ab initio BLL courses should be *object-centred*. That is, they should aim to give students real reasons to use the target language in meaningful ways. Suitable objects for ab initio learners include the students' independent exploration of the language in preparation for speaking exercises and the social use of the language to share information about topics such as *family* or *pastimes*. This principle is in line with CHAT-based design principles recommend by Blin and Jalkanen (2014: 158). Additionally, this principle builds upon previous principle propose by Ellis (2008b) (see principles 1-3, Table 2.2).

Principle 2: The division of labour within the course should take the overall context of the language course into consideration. The language learning activity within the blended course should be a *mixture of vertical and horizontal divisions of labour*. Ab initio learners should be supported in their online independent learning activity by directions from the teacher and by the selected technologies included in the course's blend. Directions from the teacher should be disseminated among the students via the course's LMS and via email, and through direct face-to-face communication with the students in class. Within face-to-face classes, ab initio learners should be facilitated in using their previously acquired knowledge in collaborative exercises mediated by a rich horizontal division of labour. This principle is in contrast to Blin's (2005: 260) finding that the development of intermediate language learner's autonomy is fostered by a predominantly horizontal division of labour. The researcher's observations and the reported experiences of the research participants show that guidance from the teacher especially at early stages in the ab initio course was highly beneficial to the students in terms of developing their autonomy at later periods in the course (See Appendix Q Weeks

5 and 6, and Appendix U and V). From an SLA perspective, this principle is in line with Instructed principle 7 and 8 proposed in Table 2.2.

Principle 3: *Various artefacts and tools* should be included in the course's blend to engage students' aural and oral skills in different yet converging ways within ab initio BLL courses. Within any class, students possess different levels of competencies in the target language and experience a wide range of individual and collective challenges. These challenges may be overcome through a variety of actions by ab initio learners using different digital technologies, physical artefacts in both specified and unspecified ways, collaboration with others and through mentoring from the teacher. In the context of the physical classroom technology should be appropriate to the instructional context and aims of the course. It is ultimately incumbent upon the teacher or course designer to choose how to embed technology into a BLL course. As discussed in Section 2.1, the technological artefacts that are chosen to enhance learning are dictated by the goals and requirements of a course's syllabus, student needs and the language teacher's requirements. According to the SLA design principle outlined in *Principles 5 and 9*, Table 2.2, instruction needs to take the learner's built-in syllabus into account. Including multiple tools in the design of blended environment that facilitate learner independent study of the target language facilitates the inclusion of this principle in the design recommendation for future ab initio BLL courses.

Principle 4: *The mother tongue and the target language* plays a vital role in the language learning activity. The target language should penetrate every learning activity at every level within the course as far as feasibly possible. The mother tongue of the students should be used to develop students meta-cognitive and cognitive abilities regarding the target language. This principle is supported by the researcher's observations specifically in relation to the group discussion related to grammar and the general functioning of the

language during the face-to-face classes (see Appendix Q, Weeks Three and Four, *In class face-to-face observations*, and Section 6.1.2). Additionally, this principle builds on *Principle 6 and 7*, describe in Table 2.2 in that it facilitate the input and production in the target language.

Principle 5: Contradictions within the ab initio BLL activity system are a catalyst for change and should be utilised by the teacher to create new forms of learning activity (see Section 6.1.3 and Section 6.4). In order to identify contradictions, from the students' perspective, ab initio BLL course should include some sort of instrument, such as a student reflective sheet, to facilitate the teacher in identifying the emergence of contradictions from a bottom-up student perspective (see *student reflective sheets* Appendix P). Building in reflection based on feedback from the learners was useful in tailoring the learning resources and learning activities within the course to the needs of the learners. It also enabled the teacher to identify other areas of interest for the students. This allowed for new topics to be identified by the language teacher and facilitated their inclusion in future lesson plans.

In order to incorporate these principles into the design of an ab initio BLL course, the author propose the following steps for the design of a CHAT-based language syllabus. These steps build on Blin's (2005: 259-261) findings in relation to the factors that contribute to or prevent the development and exercise of learner autonomy. Additionally, these steps are informed by the findings of other researchers working in the field of BLL, CALL and SLA (Chapelle, 2009). Finally, these steps are supported by the analyses of the activity system and in particular the learning outcomes identified in Section 6.3 and Section 6.4.

1. **Define the timeframe and context of the BLL course.** It is necessary to define the timeframe of the course in order to distribute the objects of the weekly sub-activity systems within the course appropriately. Furthermore, it is necessary to identify the amount of hours per week

are available for face-to-face classes (see Section 5.1). The time frame dictates which tools and tasks may be employed. For example, the small timeframe in this study prevented the teacher from using the certain application on SpeakApps during the ab initio course (see Section 5.3.5).

2. **Define the overall object of the activity system of the BLL course using the CEFR that is suitable for the course's timeframe.** Learning objects should be made real to student by relating them to topics in their daily lives. This gives the students a real reason to use the language. Using the CEFR enables the integration of accredited language learning text and online language learning resources into the course's activity system (see Section 5.1). According to Blin (2010: 185), object-centred language curriculum, in line with tasked-based pedagogies, are more likely to foster the development and exercise of learner autonomy. Additionally, in respect to less commonly taught language such as Irish, the utilisation of the CEFR may allow BLL course designers to leverage relevant knowledge ecologies that relate to their specific languages which may act as repositories for learning resources and the dissemination of knowledge (Ó Ciardúbháin and Nic Giolla Mhichíl, 2014).
3. **Identify the courses weekly sub-activity system objects and relate them to the CEFR.** This enabled the teacher or course designer to assign objects to the weekly sub-activity systems of the BLL course (see Section 5.1). This step is vital in successfully implementing Step 2 and in line with recommendations from BL course designers and CHAT researchers (see Table 5.1 and (Nic Giolla Mhichíl, 2015) .
4. **Identify the various activities that may enable students to pursue these objects.** For example, these activities may include paired- exercises, aural comprehension exercises, vocabulary acquisition, grammar explorations, group translation exercises and conversational circles. According to Johnson and Marsh (2014: 3), by Identifying the tasks ahead of time the teacher can plan communicative activities in ways that maximise face-to-face class time. These exercises may be facilitated by the researchers and group activity in order to foster the

learners' speaking skills (Senior, 2010). Furthermore, the variety of activities is also an important consideration as the interviews (Appendix U and V) and the student reflective sheets (see Appendix P) show, there was a variety of opinion concerning certain activities which some found more enjoyable than others. Have a larger variety of exercises prepared in order to build in focus shifts helped to maintain the learners' engagement in the face-to-face classes.

5. **Identify technologies and traditional learning resources that facilitate the object-centred actions.** Identify the recurrent technologies used over the weeks and determine core technology blend. Students should receive an introduction to these technologies before the beginning of the course. Additionally, mini-training session for these technologies should be included in future lesson plans. Other '*single use*' technologies should be included in the course weekly sub-activity systems to introduce focus shifts into the course. The introduction of these technologies also broaden avenues for student's independent exploration of different topics related to the language such as its culture, history or music. This step is motivated by Chapelle's (2009: 748-749) assertion that tools and artefacts need to be practical to give learners access to skills needed for work on real-world tasks and additionally that bring in these real-world factor that greatly influences successful learning outcomes.
6. **Identify the contexts in which the technology or artefacts mediated-actions will take place.** It is necessary to be conscious of external pressure on students in terms of time commitments and time available to them to pursue the independent study of the target language. Prescribed language tasks should focus on preparing students for the communicative use of the language in face-to-face exercises. Additionally, prescribed language learning tasks should be facilitated by mobile apps for ease of access by the student '*on the go*'. The student should be made aware of strategies for including the use of these technologies in their daily routines. For example; using Duolingo while on the bus or review Anki Flashcards while waiting for the kettle to boil. Traditional learning resources or traditional uses of digital technology (such as

note taking with a word processor) should feature more prominently in face-to-face classes than more advanced CALL technologies. Building on Chappelle's (ibid) assertion mentioned in step 5, these technologies should be used to scaffold communicative exercises that fit the needs of real-world tasks. Neumeier (2005: 164) states that the most important aim of BL design is to identify the most effective combination of the technology with face to face learning in order to fit the objectives and the contexts of a course. Identify the context in which technology is to be used is therefore of paramount importance when planning face-to-face exercises described in step 4.

7. **Define the horizontal and vertical divisions of labour within the ab initio course.** The division of labour within the blended course is dependent on students' larger social context. Ab initio learners should be provided with clearly defined objects and directions for their accomplishment outside of the face-to-face classes. The reported experience of the participants in the study suggests the use of the VLE such as SpeakApps and the Duolingo Schools platforms helped to guide the students outside of the class (see Appendix U). This is evidence of the role a vertical division of labour played in the course. The researcher observation sheets (see Appendix Q, Week 5 and 6) show how the use of the blackboard by the groups to map key phrases and questions prior to speaking exercises (horizontal division of labour) helped to guide students in their oral production. A rich horizontal division of labour is supported by CHAT-based design principles proposed by (Blin, 2005) for intermediate language learners but as discussed in Sections 6.1 and 7.2.2 ab initio are reliant on guidance from the teacher to facilitate their language development, thus necessitating a mixture of both divisions of labour.
8. **Define the explicit rules of the activity system and situate the activity system within the rules of the larger context.** According to Blin and Appel (2011) learners' actions are mediated by rules as well as artefacts. Defining these rules and disseminating them among the students is therefore is a critical step in the implementation of a BLL course. Situating the rules in the

larger context of the course is also critical to avoid introducing tension in the activity system such as those discussed in Section 6.4.4.

Once the course is implemented it is necessary to gain insight into progression and development at the conclusion of each face-to-face contact. In order to accomplish this the teacher or course designer should include some method of evaluation. As mentioned, evaluation of the course may be conducted using the teacher's observations or feedback from the students. The research observation sheets and the student feedback sheets describe in Section 4.5 are effective course evaluation instruments. The analysis of teacher observations and student feedback reveals breakdowns and contradictions in the course that can be used to improve or add to future lesson plans. The strengths and limitations of the study are discussed next, in Section 7.6.

7.6 Strengths and limitations of study

Methodologically, this study possesses several strengths which contribute to the study's trustworthiness. The author was able to combine data from four different research instruments and approaches in order to capture the various perspectives of different participants over the duration of the six-week language course. This data was brought together through method triangulation. By capturing data from a variety of perspectives in this way the author was able to create an accurate representational model of the overall activity system of the language course. Another major strength of the research presented here was that the methodology was dependent on an iterative design process (see Section 4.4). This process was guided by the author's supervisory panel and by meetings with Prof. Blin who acted as a critical colleague during the development of the study's methodological approach. This iterative design process contributed greatly to the appropriateness of the study's research design which in turn enabled the author to effectively pursue the primary research question. Another strength of the research presented here relates to the students who participated in the study. As the study was based in an Anglophonic environment the author was able to ensure, with the aid of the student background questionnaire, that those participants who were recruited were true ab initio

learners of Irish. Due to the nature of the research site, the population may have also introduced a weakness into the study. As Carnegie Mellon University is a world renowned institution and as it attracts academically talented students and staff, the positive learning outcomes and elements within the course as identified by the research may not be transferable to more general contexts. It is likely that the participants recruited for this study would perform well in any language course regardless of its format. Thankfully, as the focus of this study was on the identification of contradictions within the activity system rather than on linguistic outcome, this is not a major limitation.

The primary limitations affecting this study's findings relate to the following; the small number of learners who participated in the language courses over the six-week duration, the number of student feedback sheets returned to the author over the duration of the study and the study's relatively short duration. Another limitation of the study was that *Introduction to Irish* was not offered for credit at the research site when the study was conducted potentially affecting the participants' perception of the importance of the course within their lives. The relatively small number of people who participated in the study over its six weeks negates the generalisation of study's findings. Of these eleven people two people were unable to complete the study. This is another limitation which is subsequently compounded by the non-return of student reflective sheets to the author particularly in the later weeks of the course. As noted in Chapter 6, the lack of student reflective sheets for the later weeks in the course prevented the author from gaining insight into the participants' perspective. This limited the author in gaining a complete bottom up view of the different sub-activity systems over the entire duration of the course.

7.7 Directions for future research

The author hopes that this thesis illustrates clearly the practical steps that were taken to adapt Blin's (2005) CHAT-based methodological approach to studying complex learning environments in order to inform the investigation of future BLL courses. Additionally, the study's findings suggest that Blin's (ibid) CHAT-based coding scheme was adaptable to the study of an ab initio learning environments. The coding scheme proved to be particularly useful in modelling the BLL course's various activity

systems and in helping to identify contradictions based on the participants' reflections. The coding scheme also proved to be flexible in that it allowed the researcher to adjust certain Level 5 codes (see Section 6.4.5) to focus on different elements with the data more relevant to this study's needs.

Based on the discussion of the study's findings in this chapter and in preceding chapters the author is able to identify directions for future research. In particular, future research should seek to implement the same research question in a similar ab initio BLL course that is offered as an official 'for credit' course with a formal system at a university. The author posits that if the ab initio BLL course was included within an official larger academic curriculum or timetable a number of the level four contradictions that emerged within the course would not have manifested. These contradictions emerged as a result of external time pressures stemming from participants other responsibilities. As the course did not have an equal footing in terms of the larger hierarchy of responsibilities within the participants' daily lives (e.g. in comparison with other activity systems such as; work and participants' degree programmes) these contradictions could not be fully resolved within the BLL course's activity system. Furthermore, it would be worthwhile investigating the effects formalising the activity system would have on students' actions outside the classroom and in particular on the division of labour that emerges within the course.

Another area deserving of future research concerns a fuller investigation of the participants' language learning outcomes. A more in-depth analysis of the language learning outcomes for the ab initio learners through the implementation of CEFR testing procedures could yield further insight into the blend of the language course. Additionally, it could potentially yield further insight into the effectiveness of certain tools and artefacts over others within the blend. Moreover, by offering the course over a longer period of time and by offering the course for credit to participants, the author posits that this would affect the participants' motivation to attend classes, interact with the language learning artefacts and tools more frequently and also to produce more artefacts over the duration of the language course.

Yet another area deserving of future research is whether the intervention of a BLL course such as the one described in this study has a distal or long-term impact on participants continuing to study the language. This impact of the intervention on the course was not investigated as a part of this study though it is reported at the end of the group interview that students would be interested in continuing to learn the Irish language (see Appendix K). A fuller investigation of participants' activities after the conclusion of a BLL course could potentially reveal insight into the ways in which a BLL course facilitated the development of learner autonomy. Additionally, it would be useful to investigate whether context influences participants' engagement with the target language after the conclusion of a BLL course. Practically, this could be accomplished by using the learner analytics provided by language learning platforms in order to track learners' online interactions with the target language. To supplement the analytical data and gain a fuller understanding of the long term impact of the course on the participants, online surveys, questionnaires or group interviews could be organised to gather qualitative data regarding the participants' post-course learning activities.

With regard to the utilisation of learner analytics provided by language learning technologies, future studies could use learner analytics to help plan new blended courses and language learning tasks. Within this study the learner analytics generated by the LMS platforms (Duolingo Schools and SpeakApps) helped the researcher to observe participants' interaction with online resources and, in a more limited way, observe participants' activity outside of the classroom. As technology continues to develop, in the future we may have learner analytics that can reveal additional insights into what learners actually do with learning technologies. Additionally, future learner analytics may help language teachers and researchers to identify when students are experiencing problems (Chatti et al., 2014). This may in turn help them to intervene to support students who may be at risk of failing or perhaps becoming demotivated. Finally, as mentioned in the previous paragraph, learner analytics may be used in future studies to investigate whether the course had a long or short term impact on learners' activity.

The investigation of a similar BLL design using another more widely studied language is also another area deserving of further research. More CALL resources and tools are available for the study of more commonly studied European languages than there are CALL resources for Irish. Indeed, some of the technologies used in the blend of *Introduction to Irish* offer additional functionality to learners of other languages. An example of this would be the courses offered by Duolingo. The Spanish, Portuguese, French, German and Italian language courses on Duolingo offered increased audio input thanks to the integration of text to speech (TTS) synthesisers within these courses and increased investment in research into pedagogy for these languages by the company. This case is replicated across the CALL technologies that were used in the BLL course as other languages attract larger groups of learners and thus more material is made available. Moreover, learners also have greater access to larger language communities.

Methodologically, future researcher could consider combining the use of CHAT with other methodologies that are more closely aligned to design such as Action Research (AR) Design Based Research (DBR) or wrapping to further the design of ab initio BLL courses. Orland-Barak and Becher (2011) highlight the compatibility of using CHAT within AR cycles to. They state that by:

Analyzing the AR cycles through the interpretative lens of CHAT attends to both participants' actions and agency within the immediate context (Somekh, 2006), and at the same time to the social and historical settings within which participants' activity systems develop (Engeström, 2001a).

(ibid: 116)

This in turn can enable a more holistic view of the activity under investigation in that AR allows researchers to zoom into the dynamic processes of participants' activity. The use of AR with the CHAT methodology outlined in this study could potential reveal further insight into the individual actions within the language course. With regard to DBR, O'Neill (2016) and Greeno (2016) communicate the potential benefits of using CHAT to guide DBR programs and to help uncover potential contradictions with those programmes. Wrapping refers to the when face-to-face activities are wrapped around online or digital resources and vica versa (Allan, 2007, Bruff, 2013). According to Bruff (2013) by

studying how a face-to-face syllabus and elearning resources such as MOOCs are wrapped together, researchers are able to identify misfits in students' perceptions of different portions within the course which may in turn inform future course designs.

Finally, the use of CHAT as a conceptual and planning tool in this study of ab initio language learning environments marks a distinct and novel method of investigating the design of a course at this level as defined by the CEFR. It has been highlighted numerous times in this thesis that utilising CHAT to study BLL environments is a methodologically challenging task. One of the intentions of this thesis is to provide a simplified approach to assist researchers to use CHAT to study CALL and BLL environments. The author highlights that Blin's (2005) CHAT-based coding scheme is a useful tool in facilitating this task and also that scheme was readily adaptable to the needs of this research project. While the author hopes that the research presented in this thesis contributes to the discussion of utilising CHAT to study BLL environments, it is clear that additional research remains to be carried out in order to continue to develop a mature CHAT-based methodological approach. Making such an approach available to the larger community of language teachers and researchers would enable the more holistic examination and comparison of contemporary blended learning environments.

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Appendices

Appendix A Email correspondence with Professor Françoise Blin

This appendix provides examples of email exchanges and meetings with Prof Françoise Blin from The School of Applied Language and Intercultural Studies, Dublin City University.

First email exchange with Dr. Françoise Blin



Oisín Ó Doinn <odoinn@gmail.com>

CHAT coding scheme for blend language learning study

8 dteachtaireacht

Oisín Ó Doinn <odoinn@gmail.com>

28 Eanáir 2016 12:05

Chuig: francoise.blin@dcu.ie

Dear Françoise,

I hope this email finds you well. I spoke to you before about your CHAT study on learner autonomy. I am currently pursuing my own CHAT study on the development of ab initio language learners' speaking and listening skills within a blended language learning course I am designing.

Mairéad Nic Giolla Mhichíl (my supervisor) asked me to contact you regarding your coding scheme. It is my intention to adapt the coding scheme you developed in order to identify tension that exist with my course's activity systems that hamper the implementation of the course and the development of the learners' speaking and listening skills. I would greatly appreciate if we could organise a meeting in the coming month to discuss your coding scheme and also if you could offer me any advice/insight with regard to using it in the context of my own study.

Looking forward to hearing from you.

Cordialement,

Oisín

Françoise Blin <francoise.blin@dcu.ie>

30 Eanáir 2016 06:06

Chug: Oisín Ó Doinn <odoinn@gmail.com>

Cc: Mairead Nic Giolla-Mhichil <mairiad.nicgiollamhichil@dcu.ie>

Hi Oisín,

Tuesday afternoons are usually good for me. What about 9 February at 4pm? It would be useful if you could bring a draft coding scheme. We could look at it then.

All the best,

Françoise

[Téacs athfhriotal i bhfolach]

--

Françoise Blin, PhD

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Editor, ReCALL: <http://journals.cambridge.org/action/displayJournal?jid=REC>

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Séanadh Ríomhphoist

"Tá an ríomhphost seo agus aon chomhad a sheoltar leis faoi rún agus is lena úsáid ag an seolaí agus sin amháin é. Tá cosc iomlán ar scaipeadh, dháileadh nó chóipeáil neamhúdaraithe ar an teachtaireacht seo agus ar aon cheangaltán atá ag dul leis. Má tá an ríomhphost seo faighte agat trí dhearmad cuir sin in iúl le do thoil don seoltóir agus scríos an teachtaireacht. D'fhéadfadh sé gurb iad tuairimí an údair agus sin amháin atá in aon tuairimí nó dearchtaí atá curtha i láthair sa ríomhphost seo agus níor chóir glacadh leo mar thuairimí nó dhearchtaí Ollscoil Chathair Bhaile Átha Cliath. Ní ghlactar leis go bhfuil cumarsáid ríomhphoist den sórt seo saor ó víreas, in am, slán, nó saor ó earráid agus ní ghlacann Ollscoil Chathair Bhaile Átha Cliath le dliteanas in aon chás den sórt sin ná as aon iarmhairt a d'eascródh astu. Cuimhnigh ar an timpeallacht le do thoil sula gcuireann tú an ríomhphost seo i gcló."

Oisín Ó Doinn <odoinn@gmail.com>

31 Eanáir 2016 13:34

Chuig: Françoise Blin <francoise.blin@dcu.ie>

A Françoise a chara,

Tuesday at four o'clock is perfect. I will bring what I have. Thanks for meeting with me.

Le dea-ghuí

Oisín

[Téacs athfhriotal i bhfolach]

Oisín Ó Doinn <odoinn@gmail.com>

16 Bealtaine 2016 10:28

Chuig: Françoise Blin <francoise.blin@dcu.ie>

Dear Françoise,

I hope this email finds you well. I wonder if I could ask to meet with you again to discuss the application of your coding scheme to data I collected during my pilot study? I would also like to discuss the design of a couple of the research instruments that I have created based on CHAT for my main study? I would greatly appreciate any insight or input that you could offer me. Looking forward to hearing from you.

Cordialement,

Oisín

[Téacs athfhriotal i bhfolach]

Françoise Blin <francoise.blin@dcu.ie>

28 Bealtaine 2016 07:26

Chuig: Oisín Ó Doinn <odoinn@gmail.com>

Hi Oisín,

Apologies for taking so long to get back to you, but I was in Taiwan last week and I had to finish all my marking when I got home...

I could meet you on Friday 10 June at 10.00am if it suits you?

All the best,

Françoise

[Téacs athfhriotal i bhfolach]

Oisín Ó Doinn <odoinn@gmail.com>

30 Bealtaine 2016 11:54

Chuíg: Françoise Blin <francoise.blin@dcu.ie>

Hi Françoise,

Thank you for getting back to me. I hope you enjoyed your trip.

Friday the 10th at 10 am is perfect. See you then.

Le dea-ghuí

Oisín

[Téacs athfhriotal i bhfolach]

Françoise Blin <francoise.blin@dcu.ie>

31 Bealtaine 2016 09:29

Chuíg: Oisín Ó Doinn <odoinn@gmail.com>

Great, see you then!

Françoise

[Téacs athfhriotal i bhfolach]

Notes on meeting with Prof Françoise Blin

Meeting with Prof Blin – 09/02/2016

I had a very productive meeting with Dr Blin today. We discussed the aims of my study and my study's current research question. We had a very interesting discussion about the appropriateness of pursuing these aims and the research question using the methodological approach used in her doctoral study. Importantly she highlighted the importance of capturing the transformative learning processes that emerge over the duration of the language course. She also highlighted the importance of

contextualising the BL courses activity system in the larger context in which it is situated. Additionally, she also highlighted the need to define the unit of analysis of the study.

She recommended that I focus on investigating the weekly activities of the language learners online and in the face-to-face classroom. She also suggested that the object for those weeks in the course's syllabus be clearly defined by me. Dr Blin suggested that the focus of the research should be the interactions between the different activity systems as they change at the meso level rather than focusing on linguistic outcomes. This will enable me identify the emerging tensions and contradictions that happen between the different activity systems on a weekly basis. I should also look at whether the tensions and disturbances are resolved or not over time. Lots of work still to be done!

Meeting with Prof Blin – 28/02/2017

Having completed the main study in Carnegie Mellon I feel I have a better understanding I wanted to discuss the analysis of data collected with the different research instruments with Dr. Blin. Specifically, I wanted to discuss;

1. How to approach the analysis of data from the different research instruments?
2. CHAT based coding scheme and its application in this study
3. How to model the activity systems – While I model the AS should I break it up week by week and illustrate with triangles or should I model each sub activity system that comprises the language course
4. Levels of contradictions
5. Clarification Level 4 external contradictions in terms of the study– I assume the neighbouring system is beyond the language course such as another course at the university???
6. How do the levels of contradictions interact with one another (level 3 contradictions leading to or stemming from level 4 contradictions for example)?
7. Seek clarification on creating tags and descriptors for coded segments

During the meeting with Dr Blin we discussed the four levels of contradictions that exist as well as the fifth level of contradictions that Dr Blin added in her CHAT study. We discussed examples of different contradictions within the context of my study and how they may appear. For example, a Level 3 contradictions happens when a new element is introduced into another already established activity system. An example of this in the course would be the actualisation of language skill in a class exercise that leads on from an online assignment or task for example.

I need to clarify in my mind the meaning related to different levels of contradictions during the analysis process. I need to do some rereading for this. Uncovering the different levels of contradictions will enable me to uncover the different transformative processes that emerged during the study. While applying the codes I really do need to be careful that I do not apply actions and contradictions within the same segment. It is not only incorrect but will also create problems for me.

I showed Dr Blin some examples of data I had gathered and cursorily went over them applying the codes from Dr Blin's CHAT coding scheme to improve my understanding of their use. For example, any segment which has a subject verb or object in can be coded as an action (AC2).

With regard to the layout of the thesis she suggests that the numerical data that I have collected should be described within Chapter 5 also as this data can assist me in drawing conclusions. I could map this for each student over the duration of the course though it was pointed out that this would be very time consuming. I should reflect on this.

Additionally, Dr Blin reminded me that my observations are the least important data collection instrument that I have. Any artefact or document that is student generated is very worthwhile in uncovering the different relationships between elements of the activity system as it is in the process of change. While analysing the different sources of data, I need to analyse focus on the artefacts that were generated by the participants firstly, primarily the reflective sheets before refereeing to my observations.

The terminology surrounding the observation sheets and indeed the units of analyses need to be brought up to date. Each week (activity system) will now be comprised of two sub-activity systems (the online work and the face to face classes). Dr. Blin was generally positive about the design of the student reflective sheets and the structured observation sheets in reflecting CHAT principles and concepts.

I asked Dr. Blin about the process of tagging coded segments. She suggested that I create descriptors as the need for them arises after having immersed myself in the data.

The primary unit of analyses needs to be updated. The primary unit of analyses now is not the entire course but rather the activity that takes place weekly within the course. I need to continue to redefine the boundary of the activity system. Very important!

I need to make sure that the terminology that I am using is entirely correct and precise. Any discrepancy here will cause me great problems in the viva!!!

The instruments and description of the weeks is meant to show learning activity across space and time. Get away from using the term episodes. It could potentially confuse people.

I need to synthesise the discussion of the weeks. Basically give a flavour of what happened as the course progressed.

Appendix B Overview of the pilot study virtual learning environment

A screenshot of the pilot study's virtual learning environment (VLE) is provided below. During the pilot study, Assignments using the CALL tools were created based on the content covered in class and were designed to further their oral and aural interactions with the target language outside of the classroom. Using the VLE, the researcher introduced three CALL tools during the pilot study; Anki intelligent Flashcards, Irish for English Speakers on Duolingo and SpeakApps as well other online helpful Irish language resources (Tearma.ie, Logainm.ie, Abair.ie, Potafochal.com and Teanglann.ie). A screenshot of content provided to the students on the UWM classroom can be seen below.

Screenshot of UWM Classroom Content

 1. Langblog  

Langblog is a blogging tool with audio and video functionality which is embedded into a virtual classroom. Langblog is used to practise and improve oral production. Please click on Langblog below to begin posting.

Fáilte go Langblog: <http://langblog.speakapps.org/speakapps-156-1406/>



  Langblog  Edit ▾

 Add a resource... ▾  Add an activity... ▾

 2. Anki Intelligent Flashcards  

Anki is a digital flashcard application that is based on the Leitner spaced repetition system. It offers an ideal way to learn new vocabulary and to keep track of what vocabulary you need to review. It is available through browsers and all major mobile platforms.

In order to create an Anki account from a browser on your laptop please follow this link.

Anki is also available on iTunes* and on Google Play.

*NOTE: Anki Flashcards is not free for download on iTunes.



 Add a resource... ▾  Add an activity... ▾

 3. Duolingo: Irish for English Speakers  

Duolingo.com is the largest online language learning platform in the world today and is available for free across all digital platforms. It is ideal for learning grammar, improving aural comprehension and expanding vocabulary in your target language. The Irish for English speakers course is available on iTunes and on Google Play.

Once you have created a user account and registered for the Irish course please join the UWM Irish 104 classroom by following this link: <https://www.duolingo.com/o/emeqwc>



 Add a resource... ▾  Add an activity... ▾

 Other Helpful Irish Language Resources Online  

Below is a list of helpful online recourses to learn more about Irish and Ireland.

1. Abair.ie (The Irish text to speech synthesizer) is a great website that can assist you in pronouncing a word in Irish. Simply type in the word, select your dialect and synthesize the pronunciation of the word. Remember to include the fada or acute accent while spelling the word otherwise, the pronunciation synthesized will not be accurate.
2. Tearma.ie (the national terminology database for Irish) is a brilliant resource to search for terms related to every aspect of life including sports, art, technology and current affairs. Search specific terms related to your interests. Also check out Tearma's sister sites: Logainm.ie (the national placenames database), Ainm.ie (the national biographical database) and Dúchas.ie (the national folklore collection of Ireland, one of the largest collections of its kind in the world).
3. [Potafofocal](http://Potafofocal.ie) is an independent Irish/English dictionary full of useful phrases and examples of how to use words in sentences.
4. [Teanglann](http://Teanglann.ie)



 Add a resource... ▾  Add an activity... ▾

Appendix C Background Questionnaire for Pilot Study

This questionnaire is designed to gain insight into your language learning experience and your experience of using Information and Communication Technologies for this purpose. Your answers will help to generate a class profile. They will also help the teacher to tailor the course to the class's needs. If you do not wish to use your name please leave that field blank.

The information provided is confidential.

Thank you for taking the time to answer this questionnaire.

Oisín Ó Doinn (Principle Student Investigator)

ID 1 First and last name: ID 2 Course:	
--	----------

ID3 Date of birth:

ID4 Gender: F ; M ; (Tick)

ID5 Mother tongue:

LT1 Have you used computers or any other digital devices in education for language learning purposes?

Yes No

LT2 If yes, what for?

.....

....

.....

....

.....

....

LT3 Do you like using computers for learning?

Yes

No

LT4 Can you explain why?

.....

....

.....

....

.....

....

LT5 Do you own a computer or any other devices? (Please specify)

Yes No

.....

....

LT6 Are they connected to the internet? (Please specify)

Yes No

.....

....

LL1 Do you speak any other languages fluently? (If yes please specify)

Yes

No

.....

....

LL2 What other languages have you studied?

.....

....

LL2 What is your motivation for taking this course?

.....

....

Results of pilot study questionnaire: Subjects of Celtic 104

A questionnaire was used to gain insight into the language learning and technology background of the research participants taking Celtic 104 at the University of Wisconsin, Milwaukee. The questionnaire was used to explore the participants' perceptions of using technology for language learning and to uncover any prior experience that they may have had of using technology for this purpose. Another aim of the questionnaire was to highlight to the researcher what digital devices were available to the research participants. This was done in order to gauge the digital learning environment that could potentially be established by the researcher during the pilot study. Penultimately, the questionnaire was designed to investigate the students' language learning background and to uncover their motivations for studying the Irish language. It was anticipated that by assessing the learners motivation in a basic way that the researcher could more adequately cater to students' interests while illustrating the various affordances of the technology. Finally, the questionnaire was used in the pilot study to investigate the research instrument's effectiveness for gathering data in a North American

third level institution. This was done in order to assess what amendments if any would be necessary to make to successfully conduct the questionnaire during the main study.

Ten of the 11 students in the course returned the background questionnaire in the first week of the pilot study starting on the 29th of February, 2016. One other questionnaire was collected in the second week due to a student's absence. The group was an eclectic mix of students with ages ranging from their early 20s to early sixties. Of these, seven students were female while only three were male. All of the students spoke English as their first or mother tongue. None of the students in the class were bilingual. Nine of the eleven participants who returned their questionnaires stated that they had studied a second or foreign language prior to studying the Irish language. Only two of the students in the class had not studied a foreign language before taking the Irish course in the first semester of the academic 2015/16 year of UWM. Romance languages were the most studied languages in the group. Of the nine who had previous experience of studying a foreign language, six had studied Spanish, with one of these students also having studied French. Three students in total had studied French with one of this group also having studied Latin. The final student of the nine had studied German.

The students' motivations to study the Irish language were numerous. The reasons were culturally and historically motivated. Other reasons were academic in nature as people were learning the language for linguistic purposes and in order to pursue creative outlets for employment. One student was doing the Irish language course simply to do something different.

All of the students who answered the questionnaire had a positive perception of the use of technology for language learning though only six of the eleven had used technology for this purpose prior to the pilot study. Those who had used technology for language learning stated that they used it to submit

homework, conduct research, look up translations and review vocabulary. The questionnaire reveals that the use of technology for language learning purposes is largely administrative in nature (such as submitting assignments) or replicating traditional language learning practices (e.g. looking up words in the dictionary).

When the students were asked to explain their perception of technology, some students stated that they liked the choice technology offered them in that it allowed them to learn at their own pace. Another stated that she liked that technology allowed her to learn anywhere she wanted. Other advantages that students attributed to the use of technology were instantaneous feedback, access to correct pronunciations, ease of finding solutions, convenience and also that it is easier to navigate the language. One student noted that he liked having the professor in front of him in addition to the use of computer tools. Another student commented that she enjoyed using computers but still liked to use the book as well. Both of these comments hint at student preference towards blended language learning (BLL) courses. This style of learning need not remove books or indeed teachers from the learning environment but add to the mix of tools and resources enjoyed by students to pursue study in the target language.

All of the students who participated in the pilot study had access to at least one device capable of connecting to the internet. These devices included, laptops, smartphones, tablets and desktop computers. The most ubiquitous device owned by the students was a laptop followed closely by a smart phone. The laptops and smartphones were a mixture of Apple, PC, Android and IOS respectively. Not all students stated in their responses to the questionnaire which devices they possessed. The researcher made observations in the first contact to document which devices students were using. Additionally, UWM is a very well-resourced university with computers and other digital resources available to students to access the internet. These resources are made available across the campus.

Documentation sheet for classroom observations for pilot study

Date of the class:
Location of the class:
Duration of the class:
Number of students:
Teacher:
Other teacher/staff in the class:

Technology in use for class:
Explicit object of the class:

Detail the most salient points that arose during the classroom contact. Refer back to observational notes and note page number and theme next to point. Create themes as necessary and define the theme with clear language.

Page:	Salient points	Theme(s)

Appendix D Example of pilot study observation sheet

Contact 2

Location	Bolton Hall, Room B87
Students Present	10
Date and Time of Class	11am, 02/03/16
Class teacher	Bairbre Ní Chiardha
Principle student investigator	Oisín Ó Doinn

In class notes:	<p>Problems with logging in, infrastructure, hardware</p> <p>Different platforms – mobile phones, laptops</p> <p>Different browsers – chrome best and internet explorer = no problem</p> <p>Confirmation email – problem with one student account</p> <p>Positive reception</p> <p>Mobile android – works in chrome</p> <p>Showed them Anki as well</p>
-----------------	---

Second contact: This class followed much of the same format as the first class that I observed on Monday the 29th.

This focus of this first technology training session was to register students on the SpeakApps platform and to observe any problems or difficulties in explaining the platform to these students. The training

session began two thirds of the way through the hour and 15 minute long class. This duration for a language class seems to be ideal in enabling focus shifts and in order to provide the teacher with an adequate amount of time to be able to cover course content. Perhaps this would be an ideal amount of time also for the BLL course.

I began the training session by explaining where to go online and how to create a SpeakApps account. Numerous difficulties emerged during the process of registration. Certain students' difficulties were more complex than others. Some of these issues were related to hardware problems while other concerned the type of browser in use by the students. One student's computer restarted on him and began to update the operating system which significantly delayed him registering and gaining access to the SpeakApps platform. I helped this particular student set up an account after the class.

One student forgot to bring a laptop and used her android smart phone via the chrome browser to create an account. This student had no issues whatsoever which I found to be a pleasant surprise considering the digital platform she was using to access SpeakApps.

The majority of the issues that arose during the course of this training session surrounded the type of browsers people were using. There were no issues with students who used the chrome browser. Two students using safari on Mac laptops experienced problems logging into SpeakApps. These students switched to other browsers such as Firefox which allowed one to successfully create an account where the other did not. One student in the class used internet explorer to create the SpeakApps account on a Microsoft surface tablet. This student experienced no problems.

Another student did not receive the confirmation email. This was possibly because of the type of email account that the student was using (college email). He switched email accounts and subsequently

received a confirmation email. The more elderly student in the class could not remember her email login password and this delayed her in gaining access to SpeakApps. Eventually, she was able to log in successfully at the end of the class and with my assistance was able to then register for the SpeakApps UWM classroom.

The majority of the class were able to enrol in the UWM classroom with ease. Once the students without any problems had registered for the class I explained the various resources contained on the SpeakApps platform.

I firstly showed them Langblog and the basic 'ins and outs' of operating this system.

I will follow up with written instructions to reinforce my directions given in class to help them with their homework assignments. The first homework assignment will cover the irregular verbs in the past tense. I will complete this video and supporting text later in the day. The students seemed very positive towards the use of the technology for enhancing the speaking skill.

The atmosphere in the class and during the training session was very pleasant. The students did not seem intimidated and I observed several smiling and laughing during the training presentation.

I briefly showed them the Anki flashcard system via the browser interface. The students also seemed impressed by this software. Half of the eight present had android phones with the other half having apple iPhones. I explained that the iPhones app costs money which seemed to disappoint the iPhone users but not surprise some of them. I showed them some basic uses of the software but I did not fully

go into the system in detail. I explained the theoretical framework behind the software (the Leitner system). I will work with them on this in the next class on Monday.

One student asked about pronunciation of an Irish word. She asked if SpeakApps could help with this. I told her that it could not but I showed her and the class abair.ie, the text to speech synthesiser for Irish. They seemed interested and appreciative of this website. I will use abair.ie to help students prepare for Langblog tasks for the main study.

The main things that stood out at this contact were recommendations to solve tensions and contradictions:

- **Inform students to ensure that their devices are update prior to the first technology training session.**
- **Don't delay entire class focusing on one student. Address at the end of the class and ask them to focus on your instructions.**
- **Inform students to use chrome from the beginning**
- **Highlight the benefit of using abair.ie when preparing for Langblog tasks.**

Appendix E Group interview questions:

1. What did you think of the SpeakApps UWM classroom layout? Did you like it or dislike?
2. Would you change anything about the SpeakApps UWM classroom? If yes what?
3. What did you think of the Langblog assignments? Which ones did you like/dislike?
4. Did you like using Langblog? Why or why not?
5. What are your thoughts on the Langblog feedback?
6. What did you think of the Duolingo assignment?
7. Did you like using Duolingo for Irish? Why or why not?
8. What did you think of using Anki? Like it or dislike it? How many decks did you make?
9. Did you use any of the other resources posted on the UWM SpeakApps classroom? If yes, which ones did you use?
10. Would you prefer to use one technology or multiple technologies in a course?
11. Do you or did you feel any of these technologies contributed to your Irish language learning experience?
12. Do you have any thoughts, ideas or recommendations that you would like to see implemented in a blended language learning course for Irish beginners?

Excerpt from pilot study group interview transcript

0:02:47.8 - PSI: Ok. Anyone else have a contribution? (Student 4) you made a face there.

0:02:51.0 - Student 4: I personally hate making videos of myself.

0:02:54.3 - Student 11: So do I.

0:02:57.9 - Student 4: Em... But yea, like it... You had to redo over and over again to make sure that it was perfect, especially when you are self-conscious. [Group laughter]

0:03:06.6 - Student 3: Yea I think that the actual recordings helped me. I am able understand... to read a lot in the Irish, but actually creating sentences structure, that is where this is really helping me out.

0:03:21.1 PSI: Ok so you did find it helpful or no? Yes. Do you guys have anything to add?

0:03:27.9 - Student 10: I hate recording and speaking. Because then you listen to it and you are like I do not sound like that.

Appendix F Results of the pilot study group interview

The focus group revealed that the students in general had a very favourable perception of the use of digital technology for language learning purposes. One student stated at the beginning of the pilot study that she was against the use of technology for this purpose but by the study's end she stated 'I absolutely love it'. When asked if they would continue using technology to contribute to their language learning efforts the majority of the class affirmed that they would (though a cursory glance of the Duolingo UWM classroom shows the opposite).

When discussing the particular call tools that were used during the pilot students expressed a varying array of opinions ranging from extremely critical to very positive. The individual CALL tools that were chosen by the researcher will be discussed next.

The SpeakApps Moodle and Langblog: The virtual classroom on the SpeakApps Moodle and the Langblog assignments received mixed feedback from the students. During the focus group the class expressed their frustration with the layout and design of the UWM SpeakApps classroom. One student stated that the Moodle format was not very user friendly, while another pointed out that the drab colours made the platform feel uninviting. Navigation of the Moodle seemed to be an issue. Students made recommendations to improve SpeakApps' design and usability. Students also expressed frustration at adding and submitting Langblog assignments as they stated the system would not upload their videos or allow them to watch what they had just uploaded. Certain students also stated that they disliked the Langblog tasks as they did not like recording themselves or having to listen to the sound of their own voice.

Not all of the feedback concerning SpeakApps and Langblog was negative. Students expressed that they liked that all of the CALL tools were organised in one central place on the SpeakApps Moodle. This shows they are in favour of a virtual learning environment. Although the students complained about uploading their assignments on SpeakApps, they reported that they enjoyed having the

opportunity to practice speaking the language outside of the classroom and they felt that the use of Langblog facilitated this. One student reported that she felt having to complete those assignments forced her to pursue her intention to use the Irish language outside of the classroom. Another student stated that she interacted with the language more independently (e.g. looking up more vocabulary) in order to provide better answers. It was also reported by a student that the Langblog assignments contributed to his understanding of the structure of the language and his formulation of sentences. Other positive statements about Langblog related to the feedback students received on their assignments and that it allowed them to access the language being spoken in full 'flow'. Students expressed also that they would enjoy feedback to be provided to them in audio or video format instead of through email as this did not clear up their pronunciation difficulties.

Irish for English Speakers on Duolingo: Student's perception toward the use of Duolingo during the course of the pilot study was very positive. The group of students in general reported that it was fun and enjoyable to use. The students reported also that the gamification aspect of the platform was entertaining. Students reported that they enjoyed the layout of it and were keen to compare its layout with that of SpeakApps. One student stated that one of the reasons why she enjoyed using the platform was because it was colourful. Several students stated that they enjoyed studying Irish with Duolingo as it offered them a chance to review the language independent of the teacher. Students felt Duolingo helped to expand their vocabulary and they reported that this in turn contributed to their use of the language in class and also in the speaking assignments on Langblog.

Some students in the group criticised the strange sentences used in the Duolingo course while other expressed their wish that Duolingo would provide them with more opportunities to practice the speaking and pronunciation skills. One student stated that she did not think that Duolingo really helped her explore Irish culture and she added that this frustrated her. When asked if the students would have like to have used Duolingo from the beginning of their study of the Irish language there

was a mixed reaction from students. Certain students did not believe that it would be good to use the app as a 'beginner beginner' and that it would be better used later with more advanced beginners. Others did not share this point of view. Additionally, it was stated that Duolingo is not perfect as a standalone platform but worked well in conjunction with the face-to-face classes.

Anki Intelligent Flashcards: When the students were asked about Anki, the majority of the group expressed negative opinions towards this application. The discussion concerning Anki was brief and to the point. One student reported that he felt that the use of Anki was redundant as he felt that he could achieve the same results using Duolingo. Another student commented that she did not believe the price of Anki to be justified on the iPhone platform. Additionally, the general operation of Anki seemed to frustrate the students. Other issues were reported relating to syncing people's decks between platforms and also downloading shared decks. It was stated that these issues frustrated the students and one student commented that she was demotivate to use the application then afterwards.

Other language learning resources: When asked about the other language learning resources that were posted on the SpeakApps classroom it became clear that different students' engagement with these resources varied greatly. The three tools that were mentioned during this portion of the focus group that were used were; Abair.ie, Potafoal.com and Teanglann.ie. Students stated that they found Abair.ie to be a helpful resource in preparing for the speaking assignments and looking up the pronunciation of words in general. One student criticised Potafoal.com in that it did not provide them with the information they were looking for. This was met by agreement by other students. When asked about Tearma.ie and logainm.ie, no one stated that used these resources. When probed about this they stated that the resources would need to be used in a lesson first.

The focus group showed that the students had a preference for blended learning over using technology by themselves or accessing technology independently of the language course or

instructions from the language teacher. The gradual introduction of technologies was seen to be more favourable than presenting multiple technologies at once in a virtual learning environment and that the technology be explained to them instead of allowing them to explore it by themselves.

Appendix G Ethical approval

Dublin City University Research Ethical Committee Letter of Approval

Óliscóil Chathair Bhaile Átha Cliath
Dublin City University



27th October 2015

Mr Oisín Ó Dolinn
Fiontar

REC Reference: DCUREC/2015/218
Proposal Title: Implementing a cultural historical activity theory approach
in a blended language course for ab initio learners of Irish.
Applicant(s): Mr Oisín Ó Dolinn, Dr Mairéad Nic Giolla Mhichíl, Dr Peadar
Ó Fiatharta

Dear Oisín,

Further to expedited review, the DCU Research Ethics Committee approves this research proposal.

Materials used to recruit participants should note that ethical approval for this project has been obtained from the Dublin City University Research Ethics Committee.

Should substantial modifications to the research protocol be required at a later stage, a further amendment submission should be made to the REC.

Yours sincerely,

A handwritten signature in black ink that reads 'Dónal O'Mathúna'.

Dr Dónal O'Mathúna
Chairperson
DCU Research Ethics Committee



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Department of University Safety & Assurances

Melissa Spadanuda
IRB Manager
Institutional Review Board
Engelmann 270
P. O. Box 413
Milwaukee, WI 53201-0413
(414) 229-3173 phone
(414) 229-6729 fax

New Study - Notice of IRB Exempt Status

Date: December 7, 2015

To: Bairbre Ni Chiardha, PhD

Dept: Celtic Studies

Cc: Oisín O'Doimín

IRB#: 16.169

Title: Implementing a cultural historical activity theory approach in a blended language course for ab initio learners of Irish – A pilot study to investigate the practical issues surrounding the integration of computer aided language learning technology in a traditional language classroom

<http://www.irb.uwm.edu>
spadanud@uwm.edu

After review of your research protocol by the University of Wisconsin – Milwaukee Institutional Review Board, your protocol has been granted Exempt Status under **Category 1** as governed by 45 CFR 46.101(b).

This protocol has been approved as exempt for three years and IRB approval will expire on **December 6, 2018**. If you plan to continue any research related activities (e.g., enrollment of subjects, study interventions, data analysis, etc.) past the date of IRB expiration, please respond to the IRB's status request that will be sent by email approximately two weeks before the expiration date. If the study is closed or completed before the IRB expiration date, you may notify the IRB by sending an email to irbinfo@uwm.edu with the study number and the status, so we can keep our study records accurate.

Any proposed changes to the protocol must be reviewed by the IRB before implementation, unless the change is specifically necessary to eliminate apparent immediate hazards to the subjects. The principal investigator is responsible for adhering to the policies and guidelines set forth by the UWM IRB, maintaining proper documentation of study records and promptly reporting to the IRB any adverse events which require reporting. The principal investigator is also responsible for ensuring that all study staff receive appropriate training in the ethical guidelines of conducting human subjects research.

As Principal Investigator, it is also your responsibility to adhere to UWM and UW System Policies, and any applicable state and federal laws governing activities which are independent of IRB review/approval (e.g., [FERPA](#), [Radiation Safety](#), [UWM Data Security](#), [UW System policy on Prizes, Awards and Gifts](#), state gambling laws, etc.). When conducting research at institutions outside of UWM, be sure to obtain permission and/or approval as required by their policies.

Contact the IRB office if you have any further questions. Thank you for your cooperation and best wishes for a successful project

Respectfully,

Melissa C. Spadanuda

Melissa C. Spadanuda
IRB Manager

Carnegie Mellon University Institutional Review Board Approval Notification

FW: STUDY2016_00000284 has been approved An Dochtúireacht/An príomhstaidéar x

 **Thomas Werner** <twerner@andrew.cmu.edu> 15/07/2016 ☆  
chuig: mise ▾

From: IRB-Review@andrew.cmu.edu [mailto:IRB-Review@andrew.cmu.edu]
Sent: Thursday, July 14, 2016 1:47 PM
To: Thomas Werner
Subject: STUDY2016_00000284 has been approved

To access SPARCS you must be:

- On-campus connected via the wired Ethernet or wirelessly via CMU-SECURE.
- OR
- Off-campus connected via the CMU Cisco AnyConnect General Use VPN client. Directions for the CMU General Use VPN are available at the [SPARCS website](#).

Notification of Approval

To: Thomas Werner
Link: [STUDY2016_00000284](#)
P.I.: Thomas Werner
Title: Implementing a cultural historical activity theory approach in a blended language course for ab initio learners of Irish

This submission has been approved. You can access the correspondence letter and if applicable the **IRB** approved consent form(s) by clicking on the above referenced link.

This is an automated notification email. Please do not reply to this email.

If you are having any technical issues accessing this record, please contact the [SPARCS Help Desk](#) or call (412) 268-3485.

Office of Research Integrity and Compliance | 5000 Forbes Avenue Pittsburgh, PA 15213 | (412) 268-7166

Background Questionnaire

This questionnaire is designed to gain insight into your language learning experience and your experience of using Information and Communication Technologies for this purpose. Your answers will help to generate a class profile. They will also help the teacher to tailor the course to the class's needs. If you do not wish to use your name, please leave that field blank.

The information provided is confidential.

Thank you for taking the time to answer this questionnaire.

Oisín Ó Doinn (Principle Investigator)

<p>ID 1 First and last name:</p>	<p>.....</p> <p>.....</p>
<p>ID 2 What do you hope to major in?:</p>	<p>.....</p>
<p>ID 3 What is your year of study? (Freshman, Sophomore, masters student, etc...)</p>	

<p>ID4 Date of birth:</p>
<p>ID5 Gender: F <input type="checkbox"/> ; M <input type="checkbox"/>; (Check the box)</p>
<p>ID6 Mother tongue:</p>

<p>LT1 Have you used computers or any other digital devices in education for language learning purposes?</p> <p style="text-align: center;">Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>LT2 If yes, what did you use them for while learning a language? (Examples: vocabulary, listening practice, help with reading, pronouncation etc...) Also please state which programs, apps or websites you used.</p>
--

.....
....

.....
....

.....
....

LT3 Do you like using computers for learning?

Yes No

LT4 Can you explain why?

.....
....

.....
....

.....
....

LT5 Do you own a computer or any other devices? (Please specify by operating system, e.g Mac, Windows, Android, iPhone, etc...)

Smart Phone: Yes No

Tablet: Yes No

Laptop: Yes No

Desktop: Yes No

Other:.....

.....

LT6 Can you connect to the internet with your devices?

Yes No

.....

....

LL1 Do you speak any other languages fluently? (If yes please specify)

Yes

No

.....

....

LL2 What other languages have you studied?

.....

....

LL2 What is your motivation for taking this course?

.....

....

Appendix I Overview of amendments made to questionnaire

The questionnaire administered by the researcher at the beginning of the pilot study revealed the language learning and technological background of the research participants. Based on the experience of the researcher in administering the questionnaire in the pilot the author observed that several improvements could be made to this research instrument in order to gather more precise information. These improvements were also influenced by feedback from the author supervisory panel and through discussion with Dr Françoise Blin. The instrument was improved by implementing the following amendments to the questionnaire:

1. Change certain terminologies used in the questionnaire so it would be better understood by the research participants. The researcher observed that participants did not understand certain terminology used in the questionnaire. Terms such as “course” and “tick” denote different concepts in American English than in Irish English. Since the main study was to take place in another third level university in the United States the researcher thought it paramount to address this issue and to update the questionnaire accordingly. For example, instead of the terms ‘tick’ and ‘course’ the terms ‘check the box’ and ‘what do you hope to major in?’ were substituted.
2. Specific questions about the participants use of technology for language learning purposes were added that could be answered by “checking a box” related to a question. The researcher posits that by providing more choices to the question Learning technology (LT) section of the questionnaire the author could more accurately gauge the participant’s experience of using digital technologies to learn a language.
3. Another question was added to investigate what operating system their digital devices used. This is important when specifying which browsers students are to use when accessing certain platforms and apps and also in order to inform students that certain apps on certain platforms cost money.

4. Certain parts of the most salient points of questions were highlighted in an attempt to ensure that the question would be answered accurately.
5. The researcher added a section to the questionnaire in order to collect more information about the specific types of technologies the students had used for language learning purposes.

Appendix J Questions for group interview

1. (Introduce the levels of the CEFR and ask the participants which elements of the CEFR descriptions apply to them). Which of these statements do you think are relevant in describing your language ability? (agree or disagree)
2. How do the participants feel the development of their different language skills? (Listening, Speaking etc...)
3. What were the individual objects the participants had?
4. Did the course fulfil these objects?
5. What was your most preferred learning resource?
6. What was your least preferred learning resource?
7. Where did participants use the learning resources outside of the classroom?
8. Did you find any other learning resources that helped you during the course?
9. What did you think of the different assignments during the language course?
10. Which elements of the face-to-face class did you enjoy?
11. Which elements of the face-to-face class did you not enjoy?
12. What did you think of the blend between the online and face-to-face portions of the course?
13. What recommendation would you make in order to improve the course?

Appendix K Interview transcripts

Group Interview Transcript (De-identified)

00:00:01 Principal Investigator (PI): Twenty-first of the tenth. Welcome everybody. Em... so, our first question that we'll start with is to do with the course objective. So we were all aware that the course objective was to get you up to about the B1 level on the Common European Framework of Reference for Languages. Is everyone familiar with this? No. Okay. Well, the CEFR, as it's called, basically maps out learner levels. All right? So A1: breakthrough. Would you agree that you've reached this level yourself? Okay? (reading) Can understand and use familiar everyday expressions and very basic phrases aimed at the satisfaction of needs of a concrete type. (finished reading) Yes? No?

00:00:44: Yeah.

00:00:45 PI: Yeah? Okay. So that's everyone. The next one is, (reading) can introduce themselves and others and can ask... answer questions about personal details such as where he/she lives, people they know and things they have.

00:00:57: Yeah.

00:00:57 PI: Yes, okay. (reading) Can interact in a simple way provided the other person talks slowly and clearly and is prepared to help.

00:01:04: (laughing) Yeah, prepared to help.

00:01:06 PI: (laughing) Yeah. So that's A1. That's breakthrough. Okay? A2 now is (reading) can understand sentences and frequently use expressions related to areas of most immediate relevance: basic personal and family information, shopping, local geography, employment.

00:01:24: Kinda.

00:01:25 PI: Come on, come on.

00:01:26: Kinda.

00:01:27 PI: Kinda. Okay. So I'd... eh... is there certain things there, so personal and family information.

00:01:33: Yeah.

00:01:33: Yeah.

00:01:34 PI: Shopping?

00:01:37: Probably not.

00:01:38 PI: Probably not, no. Local geography?

00:01:41: As in, like, here?

00:01:42 PI: Yeah.

00:01:44: Uhhh...

00:01:44: Oh, um...

00:01:45: Geography, what?

00:01:47 PI: Geography... meaning, like, what's around you, describing buildings that you commonly encounter, names and things for streets and stuff like that.

00:01:54 PI: No? Okay, so we didn't get that. (reading) Can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters.

00:02:04: Yep.

00:02:05 PI: So... Do you go, do you like, how often, when do you rise and stuff?

00:02:08: Mmhmm. Yep.

00:02:09 PI: Okay. (reading) Can describe, in simple terms, aspects of their background, immediate environment and matters in areas of immediate need.

00:02:20: Mostly.

00:02:21 PI: Mostly? So what ones there would strike you as, "no that would be beyond me?"

00:02:29: Immediate need.

00:02:29 PI: Immediate need. Can you elaborate on that?

00:02:33: I wouldn't be able to go into a store or a restaurant, or... ask somebody what time it is necessarily or where a particular street is but like I said, I don't know which needs are they interested in.

00:02:47 PI: Okay. So, immediate needs can be defined as, say if you're hungry or you're cold or you're wet or something like that...

00:02:58: With the proper vocabulary.

00:02:59 PI: With the proper vocabulary. But you feel you haven't met that objective? You haven't ticked that box in the CEFR?

00:03:04: Not completely.

00:03:08 PI: Not completely? How do other people feel?

00:03:11: Yeah, not completely.

00:03:13 PI: Not completely. Okay. Brilliant. Eh, so now we're at B1. And I think this is where we're kind of at that everyone's going "no, not at all," but it's up to yourselves, right? So, be as honest as possible. (reading) Can understand the main points of clear standard input on familiar matters regularly encountered in work, school and leisure. (Silence for eight seconds) You're shaking your head, (name inaudible)

00:03:39: No.

00:03:41 PI: Okay. So, what that would relate to is... You know, when you get up, what time you go to work at...

00:03:46: Yeah.

00:03:46 PI: ...What, like what do you do in your spare time...

00:03:51: Yeah.

00:03:52 PI: What you're doing in school, what other people are doing. Are we able to...

00:03:58: Yeah, mostly.

00:03:58: Yeah.

00:04:01: With a little more practice.

00:04:01 PI: Yeah, with a little more practice?

00:04:02: It's recent, so it's not, like, cemented yet

00:04:04 PI: So it's not cemented but you feel like you're at the level where you're able to interact with it comfortably at this stage?

00:04:10: Yeah.

00:04:11: Mmhmm.

00:04:15 PI: Okay. (laughing) (name inaudible).

00:04:16: (Group laughter)

00:04:17 PI: Okay, so anything else to add from anyone?

00:04:19: Nope. I feel like, um, mainly the way I can say yes to this is because of all the listening comprehension things we did. Like listening to the stuff from the textbook and then trying to, like, figure out if we understood just basically what we heard.

00:04:33 PI: Yeah.

00:04:33: Because usually I can just understand like what was being said. I wouldn't get the fine details until I listened to it a couple of more times but, um, yeah.

00:04:42 PI: Okay.

00:04:43: Yeah, I can understand it more than I can quickly respond to it, but I can, like, remember the words that are said to me if that makes sense.

00:04:52 PI: Okay. So there's a difference between the production and actually understanding the skills. So it's the listening and the speaking skills. So, yeah. I'll have to ask about that a little bit later. Just dealing with this, just the three more points. Em... (reading) you can deal with most situations likely to arise while travelling in an area where the language is spoken.

00:05:21: Probably.

00:05:22 PI: Probably?

00:05:24: Again it would depend on what... (clears throat) like if somebody told me how much something was...

00:05:28 PI: Yeah.

00:05:29: If I think back to Dublin... Ordering coffee? Probably. Shopping? Probably not. Um... beyond hello, thank you... It would be, I think, just another... just a question of vocabulary.

00:05:48 PI: Okay. So more vocabulary needs to come. Does anyone else feel that they could travel through the Gaeltacht?

00:05:53: (group laughter)

00:05:54: I mean, vocabulary is the biggest problem. Other than that I'd probably get by with, like, a lot of pointing to things.

00:06:02 PI: (laughing) Okay. I like that strategy. Anything else to add? Learner 10?

00:06:09: I... I would not feel comfortable travelling, no.

00:06:11 PI: (laughing) Okay.

00:06:12: I would not feel like I know enough.

00:06:13 PI: Okay. Alright. So second last one. (reading) Can produce simple connected text on topics that are familiar or of personal interest.

00:06:25: (inaudible)

00:06:27 PI: Yeah?

00:06:30: I think it's kinda like...(inaudible)... Again it's like, kinda frustrating now but I don't know about, like, two weeks from now.

00:06:37 PI: Of course, yeah.

00:06:40: (laughing) Maybe like six months to a year?

00:06:41 PI: Okay. So at the moment you feel that that's alright.

00:06:44: Sort of.

00:06:45 PI: Okay. Anyone have anything else to add? No? Okay. Em... (reading) Can describe experiences, events, dreams, hopes and ambitions and freely give reasons and explanations for opinions and plans.

00:07:00: (group laughter)

00:07:03 PI: There's a lot of head shaking going on. Okay. Great. That's the end of that question. Em... So the next one is... So the objective was to get us just to that point where we could start to... so we could tick off some things. But then we have an issue because it's between your listening skill and your speaking skill. Which do you feel is better?

00:07:24: Listening.

00:07:25 PI: Listening. You're more comfortable listening than you are speaking?

00:07:28: I'm more comfortable understanding it than I am reproducing it.

00:07:34 PI: You'd be more comfortable speaking than you are listening? Okay. So, hands up who's more comfortable listening? Okay, so that's four. And more comfortable speaking? Okay, so that's three. Interesting. What were your objectives and goals for taking this course? So we have the course's goals, but what were your ones?

00:08:02: Just to find out how the language works.

00:08:06 PI: Okay. A whisk of curiosity you might say.

00:08:08: Yeah. Curiosity, exactly.

00:08:12: To study a language that was not romantic.

00:08:18 PI: (laughing) Okay.

00:08:20: (group laughter)

00:08:23 PI: One participant is now listing Chinese, Japanese, Russian...

00:08:25: (group laughter)

00:08:29 PI: Em, just a note. And Arabic as well. So what were the other objectives? To learn more about the language, to try something different...

00:08:35: To learn more about Ireland.

00:08:37 PI: To learn more about Ireland

00:08:40: I had a... (inaudible)... so it'd be kinda cool to be able to speak...

00:08:44 PI: To be able to turn around and kinda... mess with someone's head.

00:08:48: (Group laughter)

00:08:51 PI: Okay. So, to learn about Ireland, to experience the language. Any other reasons?

00:08:57: Um... just general interest. We travelled there, we saw the signs. And I'd like to learn a little bit more.

00:09:07 PI: And Learner 9, you were forced?

00:09:09: Support. (laughing)

00:09:11 PI: All right. Brilliant. Did you achieve those objectives?

00:09:13: (inaudible)... (group laughter)

00:09:19: Yeah.

00:09:20 PI: Do you believe that you achieved those things?

00:09:21: Mmhmm.

00:09:22 PI: Okay, so the course was satisfactory for your own objectives although it didn't...

00:09:28: We touched on all the stuff in the A1 category.

00:09:35: Even if it was a whole semester I think we would've gotten pretty close.

00:09:40: (group laughter)

00:09:43 PI: Em... moving onto the tools, right. That we used in the course. What was your impression of the technical side of the course?

00:09:58 PI: So if we take the first one: Speakapps. It basically underpins the course and lays out what we're doing each week. What did you think of Speakapps?

00:10:08: It's nice to have a map of where we are in the course, I guess.

00:10:15 PI: Okay. Just a map. So...

00:10:16: It was kind of like a checkpoint to see what we were looking at coming up and then remember things.

00:10:24 PI: Yeah. Indeed. Anything else?

00:10:26: It was good to have a resource to know where to go for the documents you referred to.

00:10:31 PI: Okay. Excellent.

00:10:33: It was nice to have a hub for everything because I have a Duolingo account, a Soundcloud account, I use Anki. I use all of the stuff but having to go through all of it for this one course could be a little tricky at times because there's so much stuff to go through but having like a single area where you know this is what you have to do with this piece of technology for this week was very useful.

00:10:55 PI: Yeah. And that's kinda the anchor point because there's a lot of text so you can get lost on what you're going to do. What did you think of the aesthetic SpeakApps and the usability of it?

00:11:12: Uh... I wish I had (inaudible) Irish or whatever anyway so I didn't really explore anything. I was like whatever what was in front of me.

00:11:19: It was really easy to be able to find the links I wanted to.

00:11:24 PI: But being on the links, you didn't play around with what else was going on?

00:11:28: No.

00:11:28: It's pretty simple. It's not a very pretty website but it's useful.

00:11:35 PI: Yeah, yeah. Okay. What did you think of the Duolingo and being part of the Duolingo classroom?

00:11:44: I liked that. It kept me accountable. (laughing) Well, yeah.

00:11:47: (group laughter)

00:11:50: It tried to keep me accountable then I would realise I had things to do.

00:11:55: It could keep you accountable in between the periods because it would tell you you had to do this by... pretty soon. But if it reminded you, like, three days after you get the assignment, I found myself doing stuff near the end before it was due sometimes. You know, it can just sorta slip your mind.

00:12:12 PI: Yeah, indeed. Em...

00:12:13: And we keep getting emails randomly from Duolingo everyday, so I remembered. And um... I actually did manage to go on everyday until recently.

00:12:24: (group laughter)

00:12:25 PI: Well we all understand why because everyone is so busy with mid-terms, isn't it? [General agreement] Em... so actually using the app, do you feel it impacted on your different skills in the language or... tell me how what impact or how important it was for you to use the app.

00:12:44: There was definitely a big impact. Um... I think the fact that I was using it everyday helped me think about Irish everyday. And um... even though I was typing, reading and listening instead of speaking it just helped me learn the words and just keep it on my mind, so um... otherwise I was just going to class two days a week and I probably wouldn't get very far but with this it was a more continued learning experience

00:13:16 PI: Anyone else have anything?

00:13:18: Yeah, I started using the tablet - the iPad - and Bob kept saying "are you reading that stuff in the front?" And I said, I don't know what you're talking about that's all on the desktop version so I only started using that. I found their introductions and their explanations helpful.

00:13:38 PI: Yeah. There's an entire workbook in it. How many people actually made use of the grammar workbook... well not the workbook but the grammar book? Learner 3 is shaking his head vigorously.

00:13:50: (group laughter)

00:13:52: I find like the grammar explanations before each section of the Duolingo really helpful and I didn't actually know that that existed until I started using the desktop version. And I was like, wow! Okay. That's a lot more helpful because a lot of the time on the mobile version it would just go through something and not quite understand what you're doing until you read it and you go, oh okay that's what I was doing.

00:14:15 PI: I did mention it several times during the course

00:14:18: Well that's just a comment about the...

00:14:20 PI: Yeah, yeah. No I understand and that's the problem with mobile versus desktop. You get two different user experiences but was it that you discovered it yourself or was it that I prompted you? Was it something that...

00:14:34: I'm sorry to say I discovered it myself.

00:14:37 PI: You discovered it yourself? (laughing)

00:14:38: I didn't know about it until you mentioned it.

00:14:41 PI: So you discovered it yourself whereas...

00:14:44: Usually when I do the Duolingo it's when I'm waiting for the bus or like in the short amount because I don't have very much time. So it's normally in the short amount of time that I'm waiting for something and I can flick through something on my phone. I didn't even know that you could do it on a desktop and I didn't know that there were workbooks until you mentioned them.

00:15:03 PI: Okay.

00:15:05: What's the workbook?

00:15:06 PI: Eh, like not a workbook but a grammar book.

00:15:12: Just like the...

00:15:13 PI: ...the information. If you were to take each unit it would have all of the elements of the Irish language.

00:15:18: You talked to us about having those workbook grammar parts being (inaudible)

00:15:27 PI: Yeah.

00:15:29: I personally wouldn't have found them.

00:15:31 PI: Yeah there's a lot of work that needs to be done on that side of it. I would agree with you.

00:15:34: Um... and I found that reading became my better skill throughout the course from the Duolingo and the papers that we received.

00:15:44 PI: Okay. So you'd rank your reading skill higher than your listening and your speaking?

00:15:48: Yeah and actually my writing.

00:15:50 PI: And your writing as well?

00:15:52: Yeah.

00:15:54 PI: So you're the same?

00:15:55: Mmhmm.

00:15:56: I think that's partially just, or at least for me, that what my brain wants to say in terms of pronouncing a word is not how you pronounce it. So listening to it, it's harder to remember what it is than if I have the visual.

00:16:09 PI: We'll get onto that in a second, okay. With regard to the other tools that we had. Yankee(?) flash cards. Yay or nay?

00:16:18: Yeah they were fun.

00:16:19 PI: They were fun?

00:16:20: Yeah.

00:16:20 PI: Good. Helpful?

00:16:22: Like the ones that you made, I don't think I could make them myself.

00:16:26 PI: That's the other thing. Did you prefer if I made them or if... did you make any yourselves?

00:16:30: No.

00:16:31: I only used yours.

00:16:32: (group laughter)

00:16:33: Okay. No, but that's okay. Did they help you? Were they useful to you?

00:16:40: Yeah. Um, I only used them a few times but the few times I did they clearly helped a lot. Um, and I felt that some of the phrases I didn't really know before were something I had afterwards. Um, I would know how to say them and understand them. I think that actually helped a lot.

00:16:57 PI: Okay. Em, what would make you use them more?

00:17:04: So for the iPad - Apple - it was free, right?

00:17:09 PI: Yes, indeed.

00:17:09: So, free.

00:17:10: (group laughter)

00:17:11 PI: Okay.

00:17:12: So, you had it on Android but I couldn't get it on iPhone.

00:17:15 PI: It was available on PC as well, did you use the web version?

00:17:18: Yes.

00:17:20 PI: You did. But again it's not... it's a little clunky. Yeah, that's a nice way of describing it.

00:17:28: We used them for, uh, when we didn't have hands to click things. Or we couldn't really... like when we were driving. And that's nice because you don't have to remember to push a button. It just goes.

00:17:43 PI: Yeah.

00:17:45: And it will go for as long as you want it to unlike Duolingo which you have to write and type and click.

00:17:55 PI: Yeah so it fits a specific place and time better than other tools whereas I assume when you were accessing Speakapps, because I was actually going to ask about the location where you used it, I assume when you were accessing Speakapps it was on a laptop. Any mobile devices used?

00:18:15: I didn't know that you could use it on a mobile device.

00:18:18 PI: You can, yeah. On Chrome browser you can.

00:18:21: I did that, yeah.

00:18:23 PI: Once or twice?

00:18:25: Yeah it worked.

00:18:26 PI: So when you were using Duolingo, where were you using Duolingo?

00:18:34: At home on the laptop.

00:18:35 PI: At home on the laptop?

00:18:36: Or in my office.

00:18:38: Phone, mostly.

00:18:39 PI: Phone? Laptop? Okay.

00:18:44: If I was at school and I didn't have my laptop and I really needed to see the grammar book I would go on the Chrome browser on my phone, put in Duolingo.com and request the desktop version of the page. Because it's designed for your phone at the same time but it's an obscure way to use it but it did get me the grammar book also.

00:19:06 PI: Yeah, yeah. Okay. That's an interesting get around there.

00:19:10: It's a lot of steps.

00:19:12: PI: Eh, with regard to Soundcloud and the assignments - em... what did you think of those?

00:19:22: I got that last email telling me I had the right link and I did not have the right link so that was a bit of a pain but that was aside from the actual activity itself.

00:19:35 PI: But it's also about the usability of the tech so if the tech wasn't immaculate.

00:19:40: I mean I get that it wasn't as accessible as an iPhone, like, to record, like I just did it on my computer but it just means I have to be in a specific place where I have time to take out my computer.

00:19:55 PI: Yeah. Any other...

00:19:56: Well the only problem I had was that I made a Soundcloud account a long time ago but I didn't confirm my email so it wouldn't let me finish my recording but it didn't say why, so that was annoying but otherwise, you know... there's (inaudible) to record, say yes, private link and send it to you.

00:20:15: I think every time I did a recording the first one was always rubbed so I had to do it again, and then on my account there was like six of them, because there should only be three if there was six because the first one... it's there but it doesn't play anything.

00:20:31 PI: Can you not delete it?

00:20:33: I don't think so, I think I tried.

00:20:34 PI: Okay. I think you can delete it.

00:20:37: It didn't give me the option the last time, it would just say that it was loading.

00:20:43 PI: Okay. That's a great pedagogical value though because the more you repeat it, you know...

00:20:48: (group laughter)

00:20:52: It wasn't intentional. I went to play it back and I was like, what do you mean it won't work?
This again? It was just...

00:20:57: (group laughter)

00:20:58 PI: Would it have been better to have multiple ways of submitting audio? So say you could use Soundcloud, make recordings, press the file and send it on. Or we could make a Whatsapp group? Or something like that, something more direct just to have several options.

00:21:17: With the iPhone you can make a voice memo. That's what I did with Soundcloud I made a voice memo and emailed it to myself but I could email the voice memo to you.

00:21:27 PI: Right, okay. All right. Yeah?

00:21:30: Yeah, agreed.

00:21:33 PI: No, because it's just interesting just to discuss that. So those are kind of the main technologies that we used but we used other technologies as well. So we had Oppia for like the grammar book explorations and stuff like that. We had téarma. The different websites. So we had

téarma, foclóir, logainm, abair, fuaimeanna. Then there was also Youtube videos and multi-discs(?) (coughing obscures audio). Which ones did you use and which ones did you just stay away from?

00:22:08: I used the speech sensitiser one. The one on Duolingo.

00:22:16 PI: Yeah, okay. So you used it a lot. You used it to compensate for Duolingo, would you say?

00:22:23: Uh, no. Not Duolingo. Soundcloud, I meant. When I had to say a word I didn't know how to pronounce I used that to figure it out.

00:22:33 PI: Okay. Did everyone else use it as well?

00:22:34: Yeah.

00:22:37 PI: You didn't use it? Why didn't you use it, Learner 9?

00:22:38: I didn't... um, you and my notes on the Anki and just make notes on the workbook pages even, for pronunciation. And, um, the recordings that you uploaded. And I'd just listen to you.

00:23:01 PI: Oh, yeah. Okay. All right. Em... you were praising me (laughing). Any other input there for the...

00:23:10: I used the Anki.

00:23:12 PI: Oppia? No?

00:23:14: Oppiat?

00:23:16 PI: Oppia. (spells Oppia).org? The introduction to Irish thing?

00:23:22: Yeah, I used that.

00:23:23 PI: What did you think about it?

00:23:24: It was simple and easy to understand

00:23:26: I thought there'd be more to do but still, it works well with my computer and my phone so...

00:23:31 PI: Good, yeah. So you'd like more of them?

00:23:34: Yeah, it's just a simple, quick lesson you can go through and review whenever you need to so...

00:23:40 PI: Yeah.

00:23:41: I normally went through it like really close to the beginning of class just to see if I understood what I was taught on Duolingo. Usually I did.

00:23:48 PI: The difference there is that there's some technologies you're using kind of prior to the class and there's other ones that you're using every other day throughout the week.

00:24:00: Yeah.

00:24:01 PI: Yet you can't record a video. (laughing)

00:24:03: (group laughter)

00:24:04 PI: Yes, yes, okay.

00:24:06: Yes that is true.

00:24:07 PI: So, what, Duolingo would be the one you're using constantly?

00:24:10: Most often, yeah.

00:24:12 PI: Speakapps, how often are you logging in?

00:24:15: Every time I get an email from you. (laughing)

00:24:17: (group laughter)

00:24:17: (laughing) Every time you get an email.

00:24:19: (group talking over each other - inaudible)

00:24:23 PI: Okay, just to make sure we're in the same place.

00:24:25: Want to talk about the copy?

00:24:27: Yeah.

00:24:28 PI: Yeah, em, and then other ones just weren't specified.

00:24:33: When we were doing them that required them(?)

00:24:35 PI: Yeah, okay.

00:24:37: If this were a class I was taking for credit I would log into Speakapps and log off just to be more sure that I wasn't missing anything but I felt a little more laid back so I wasn't too worried about that.

00:24:48 PI: Okay, I love your honesty. So moving on to the face-to-face classes. What did you like about the face-to-face classes and what did you dislike about the face-to-face classes?

00:24:56: (long silence)

00:25:07 PI: So what did you like?

00:25:09: I liked that you forced me to actually speak. (inaudible)... very well. I felt more comfortable towards the end of the class but as soon as we walked in you were like "get up!" and it was like "ugh okay".

00:25:23: I liked it that you forced us to speak and I hated it that you forced us to speak.

00:25:28 PI: So it was both?

00:25:30: It was stressful.

00:25:31: There was a lot of anxiety coming into the class.

00:25:35: I thought it was a little difficult, at least for the classes that I did go to because I stopped going. Um... because everybody's pronunciation was a little bit different because we were mostly referring to the vocab sheets so it was hard for me to understand other students, or to be understood by other students because our pronunciation was different so it was a little disconnected. But then when you said it I was like "oh okay". There it is.

00:26:04: I felt much less high stakes talking to other people who also didn't know what was going on.

00:26:12 PI: Did you guys get used to each other's Irishes?

00:26:15: Yeah I started to be able to understand people.

00:26:17: Yeah I think so.

00:26:19: Or if we couldn't we'd just stare at each other until we could...

00:26:23: Or just point at the sheet.

00:26:24: (laughing) Yeah.

00:26:25: Until you came down because we looked lost.

00:26:26: (group laughter)

00:26:27: Or ask you how to pronounce something.

00:26:28 PI: Okay. So what did you dislike most about the course? So you said the speaking, right, so it's like a love/hate relationship there.

00:26:40: About the course or the...

00:26:44 PI: Sorry, the face-to-face classes.

00:26:47: The love/hate relationship with the speaking part sort of sums it up for me.

00:26:51 PI: What about the listening portions of the classes?

00:26:54: That was always good.

00:26:56: I enjoyed those.

00:26:57 PI: You enjoyed those?

00:26:58: They helped a lot. Just to like hear a conversation.

00:27:01 PI: Okay. Do you think the ratio between the two was right in classes or does there need to be more...

00:27:07: I think the class could have gone on longer.

00:27:10: I'm gonna say more listening.

00:27:12 PI: More listening.

00:27:12: I feel like we did a good amount of both things but we could have had an hour-and-a-half instead of an hour. That would've allowed for more time...

00:27:20 PI: More exercises?

00:27:20: Yeah.

00:27:21 PI: Do you feel everyone got enough support in these exercises?

00:27:29: (group talking) Yeah.

00:27:29 PI: Yeah? Okay. Em... now. This is kind of touching on what you said about if you were taking it for credit. Was it difficult to keep up with the course's workload and the assignments, forms etc?

00:27:49: Yes.

00:27:50: Yeah.

00:27:51 PI: So it was. Okay.

00:27:52: Not really for me.

00:27:54 PI: Okay so we'll go around. Why was it difficult or not difficult?

00:27:57: I think maybe because it was a class I didn't really plan to have until maybe the second week of classes here when it did start. And then I had to shift my schedule to accommodate studying for this class and making sure I'm prepared for each class and then I ended up failing, and all of those aspects and I eventually said you know I'm too far back so I might as well just...

00:28:26 PI: Cut your losses?

00:28:32: I didn't want to cut this but then I said I'm too far behind and I'm not going to catch up.

00:28:34: I liked coming. I think there's still one recording that I haven't turned in but like the same way that I like doing Duolingo... there's no way to immediately find a quiet room on campus to record something and I spend 90% of my time on campus. And the other 10% is the hours from like 4am to 7am. So it was just hard for me to find that time and I also have a very poor schedule.

00:29:00 PI: Okay. Very busy.

00:29:07: One thing that was lost through my recording is that sometimes even though it takes like 30 seconds to make a recording. A little bit of planning goes into it but also just having that situation

where you can just speak Irish freely clearly enough that your phone can pick it up. Sometimes I'll be in my apartment thinking "will my roommate hear my speaking Irish to myself?" It was a little weird so I'd just wait sometimes. (laughing)

00:29:30: My roommates definitely heard me and definitely laughed at me.

00:29:31: (group laughter)

00:29:35 PI: Okay, so you all had... not a privacy issue but a performance anxiety issue?

00:29:44: Just a space issue.

00:29:45 PI: So was there some assignments that you were like, nah I won't do that one but this one I can do because it's more convenient or whatever else like that. Was there certain, in your own mind, things that were more pressing or that you gave more urgency to?

00:29:59: Yeah. Well, there was a (inaudible)

00:30:06 PI: I'm sorry?

00:30:06: Things that had, like, concrete dates. So the Soundcloud recording would say this is due on this date so I would do it at that point.

00:30:16: I would do the Duolingo a lot more just because I was on it, but the Soundcloud you would be like, someone didn't give it to me! And it was me. And by the time I went home and did it it was like four weeks later.

00:30:31 PI: It wasn't just you.

00:30:32: There was that and like the review sheets. I think I did three of them at once and finally got them to you.

00:30:44: The review sheets were the one thing that I did as soon as I got them.

00:30:48 PI: Okay, yeah. You were all very good on those. Which was good.

00:30:53: For Duolingo, like, um... beat 100 XP by this date and that was pretty easy. Then there was one that was like we had to beat this specific unit by this date, and I had to do 100 XP everyday to get to that. Then the second assignment was to do something we had already done necessarily to be able to do the one the week before. So I had to do nothing. I think it's good to have specific units due but maybe having them within reasonable bounds or more often would be nice so you don't accidentally fall too far behind.

00:31:27 PI: I get you, yeah.

00:31:31: I had the same thing. There was one, we had to do verbs and I was like six behind and I had to do a whole bunch that we really weren't focusing on but it wouldn't let me jump past right to the verbs.

00:31:41: I think a big part of that for me is that I would do the review for XP to make sure everything was bold and I would, like, not move forward because I wanted to do the review.

00:31:54 PI: Okay.

00:31:55: You liked having the full...

00:31:57: I did. It's not anymore. I started just doing that. It's really terrible. My basic is still...(inaudible)

00:32:05: I can never really be sure sometimes how far ahead I should really be moving. Should I be reviewing or should I be just chugging ahead and doing the whole of Irish Duolingo at once?

00:32:15 PI: As I said at the beginning of the course, I'm going to set a minimum but I want everyone to be doing 100 XP. Like, remember, I said this a couple of times.

00:32:26: Yeah.

00:32:27 PI: So if you wanted to go ahead that would have been brilliant. I wanted you to have 100 experience points or in and around 100 each week. So when I actually specified something, within the course's framework, you should have already been there. Although I know you weren't. But I was trying to push people a lot because that's an interesting tension. So, em, was it more difficult to attend the classes or complete assignments?

00:32:54: Complete assignments.

00:32:54 PI: Complete assignments. Okay.

00:32:56: I mean, classes are scheduled, so you don't really have to think about how you're going to do it.

00:33:03: (group laughter)

00:33:03 PI: (laughing) Okay. Right. It's just blocked out. How did you find the blend between what was happening online and what was happening in the following classes?

00:33:17: For me it was nice just because this was my, literally, busiest two months of the whole entire year - September and October - and my final deadline was yesterday so I'm, like, free now. Now I wish the class had only started. But it's nice that for the days I did miss I can still kind of review and keep up, sort of. But, I mean, I liked the blend a lot.

00:33:45 PI: Okay.

00:33:46: Whenever something that we had discussed in class came up on Duolingo I got really excited. Duolingo teaches a lot of things that weren't covered in class which is good, but also when you see something you recognise and understand, like, okay so this is actually used. It's very, I don't know, satisfying and reassuring. I like the balance of, like, having new material and reviewing old material.

00:34:12: But by the same token, it was confusing sometimes not to see a link between what we were doing with the sheets and your recordings and editing for example, and class, versus Duolingo.

00:34:32 PI: Okay, yeah.

00:34:33: I guess I had expected that one would support the other.

00:34:36 PI: More directly, or just...

00:34:38: More directly.

00:34:39 PI: ...or just support?

00:34:41: No, just more directly. I mean early on with the food and stuff, and the main verbs like to eat, to drink, those kinds of things that we explored in class. But then as we went on I wasn't seeing the links. For me having more sources of input on similar issues is more helpful than less helpful.

00:35:09 PI: Okay.

00:35:10: I mean, Duolingo isn't structured so that... there are groups of things that you need to learn at a time but it's not structured in a way that we're gonna talk about this and then this and then this and then this. Um... which a class kind of necessarily is because that's just how time works. So... it didn't, it wasn't always like a one-to-one course line like we talked about in class to what was happening on Duolingo. But like Cass said, seeing things in either setting that we had already done in the other one was always exciting.

00:35:40 PI: Yeah, yeah.

00:35:41: I felt that I was, um, learning a lot of things on Duolingo that we weren't learning in class. I don't know if that's a good or bad thing or not. We don't need to necessarily practice talking about ducks or whatever in class everyday.

00:35:55: (group talking over each other - inaudible)

00:36:02: I have my screenshot

00:36:05: But um, I did feel like on Duolingo we were learning both words and the grammatical stuff and not reviewing them in class. I think at least reviewing things from Duolingo in class would have helped. So I'm not learning things entirely on my own.

00:36:25 PI: Okay.

00:36:26: There were times that, like, you asked me for a verb that I knew because of Duolingo. So it forced me to recall and strengthen that stuff.

00:36:35 PI: Okay. Would a more overt description of why things are happening and why I'm organising things the way they are be more helpful to you?

00:36:44: Yes.

00:36:46 PI: To see my logic behind it?

00:36:47: It's not that I... I...

00:36:50 PI: Yeah, okay.

00:36:51: I think that would depend on the group of people you have. We're obviously quite special.

(laughing)

00:36:58: (group laughter)

00:36:59 PI: Indeed, indeed.

00:37:01: I did think some of that was because I'm an older learner I was looking for something more traditional. It took me some time to get used to the hybrid approach to it. In fact, the first day I went home I looked at your photocopy to find the book online so I could order the book.

00:37:19: (group laughter)

00:37:21: That's how I was comfortable with having tech to work with. Sort of underpinning and underlining which is sort of what Duolingo did. I didn't feel we always went back to Duolingo to connect with what we did in the class.

00:37:33 PI: Okay.

00:37:34: See, for me, Duolingo was more just for vocabulary. It was where I learned words. But I wish it had more on pronunciation because my pronunciation of it was totally different to what it actually was. So I would learn it and then you would start talking about something in class and I would have no idea what it is, then you would write it on the board and I was like, oh I do.

00:37:53: (group laughter)

00:37:55: It's just not how it's supposed to be pronounced, so...

00:37:58 PI: Okay.

00:37:58: That was like the biggest thing for me but the actual classes helped to structure things, I guess.

00:38:01 PI: Yeah. I don't have too much input but if you kind of think of it as a Venn diagram. Em, so... what would you improve about the course? This is everything, so online, in the class, other resources.

00:38:29: It's a very small question.

00:38:31 PI: (laughing) It's a very small question, yeah. Just have a think about it there for a minute.

00:38:35: (long silence)

00:38:44 PI: Just think of the difficulties that you have. What are the difficulties that you have and how would you like to see them be addressed?

00:38:50: Maybe go back to pronunciation every few classes just to, like, remind...

00:38:59 PI: Okay. Pronunciation. Everyone's nodding their head.

00:39:04: Maybe, like, practice reading words aloud.

00:39:06 PI: Okay.

00:39:08: It helps you just to learn how certain words are pronounced and just to get used to the speech sounds in Irish.

00:39:18 PI: Okay.

00:39:19: Sometimes I found it hard to remember words because I couldn't remember how they were specifically pronounced. I would have this image of how it was spelled in my mind but it never really stuck because I couldn't say it properly, until I heard it and I'd go "oh, okay" and then I said it correctly but I would forget how to say it correctly later because I couldn't recall that image - the text in my brain.

00:39:42 PI: Okay.

00:39:44: It can be a bit tricky at times because in the course, the face-to-face class, we focused on communication, just being able to say it. But with Duolingo you have to be able to type it correctly, that could take time. It took me like three weeks to be able to type comhghairdeas.

00:39:59: (group laughter)

00:40:00: I mean it's useful too because I understand the logic behind...

00:40:05 PI: No, come on, spell it. (laughing)

00:40:07: Oh, uh... (tries to spell comhghairdeas)

00:40:16: (group laughter)

00:40:17 PI: You're nearly there. Okay.

00:40:21: Well that's a word I'll never use. Anyway, like I was saying, understanding slowly, like, the logic behind spelling words and when you use the fada, and like also to some extent the eclipses and lenition would come up in Duolingo. You just had to get used to it. It would point out whenever something happened or if something happened that you don't understand. You can look at the questions people are asking and see, oh that's eclipses we learned that like ten units ago. Like I said, the course is more about speaking so...

00:41:00: It's like, I think, I personally would learn pronunciation in a language more easily if it was very explicitly spelled out to me how the text is pronounced. I know for some languages that doesn't work like English, of course, but just like maybe a whole class that was just dedicated to - these are the conventions that Irish orthography has and this is the IPA that you would... because I found some other resource, I'm not sure if you had posted it but it was an Irish IPA translator

00:41:39 PI: That was Abair?

00:41:39: Yeah. It was Abair. So it would put it into IPA for me and I would just go, "oh, that's how you say it."

00:41:48: I didn't find that, it would have been helpful.

00:41:50: We talked about it at the beginning of the course but at that point I hadn't read any Irish words yet. I didn't have anything to like apply it to. So going back to it later would have been helpful.

00:42:04: We could do like pronunciation quizzes, or some sort of assessment.

00:42:10 PI: So you guys would like a wee sliver (?) of the course. The real emphasis of the course would be on pronunciation.

00:42:19: Showing, for example, what the different strategies would be for using these sites, like um, how would you use this? How would you use this? How would you use this? And then people like Learner 10 who haven't learned a language for a really long time and haven't used the technology and don't know how to apply it to their learning will be able to see, "oh, okay, I can do that." Or, "okay, that makes sense to me."

00:42:47 PI: So more training in metacognitive strategies to utilise these tools more effectively.

00:42:51: Well also scaffolding the technologies themselves. To introduce us to too many different technologies I think can overwhelm people. I think we all seem to have settled on things that we enjoy the most. And those are the ones we have kept with.

00:43:08 PI: Do you think that the course started off too tech-heavy, or was it just the right amount? Was it was too much at once?

00:43:17: There was a lot of information.

00:43:19 PI: It was a lot of information? So space it out even more.

00:43:25: And for each site, show it to us and say, "this would be good for this". Because in the end I did try to use some of those dictionary sites and I got frustrated so I just said, "okay, I'm just going to listen to Oisín and mirror his pronunciation."

00:43:38 PI: Okay, alright. Em...

00:43:44: But in the end, you can let people decide then which ones they want to use if they all do relatively the same thing but in different ways.

00:43:51 PI: Yeah, yeah. Okay, I understand. I thought that there was enough support but I was obviously mistaken (laughing).

00:44:05: I think you've been through(?) the millennials. They can be shown how to use particular... to address strategy use and strategy learning with different technologies.

00:44:18 PI: So do you think that maybe ten or 15 minutes, over the face-to-face class, like one class a week just to focus on the specific use of technology, would be beneficial to you?

00:44:31: We're asking (inaudible)... you know? As homework, use this, and then come back and say, "okay how did you use it? How did you find it?" Or "what didn't you find, let me show you where it is."

00:44:44 PI: Yeah, okay. Em, this is great. Those are the difficulties that you have. With the Irish language though, specifically, what was the biggest challenge for you?

00:44:55: Oh God, why would anybody make lenition and eclipses?

00:45:00: Those were challenging. I could hear a word and be like, "I don't know that word," only to find out it was just a 'g' stuck in front of a word I already know.

00:45:10: Even with the Duolingo grammar it was like, "okay, here you go" and gave a million different ways to know the rules and say, "see, now it's easy." Maybe I'm just weird but I don't really have the brain to remember all of them over the next couple of weeks.

00:45:27: Or all 77 prepositional pronouns. In a chart.

00:45:29: (group laughter)

00:45:30: If they were done just a little more sequentially I could deal with it but... It was definitely like every time eclipses or lenition came up and I didn't catch it or I didn't remember to type it in, I was like "ugh, Irish (inaudible)".

00:45:43: (group laughter)

00:45:45 PI: Eh... okay. Yeah, they're just a feature of the language. It is what it is, so...

00:45:53: You mentioned the prepositional pronouns. I went searching for them and found a page and I really found it helpful because I was always referring to it with, you know, 'orm' is that with or is that to? And then, those were a challenge for sure.

00:46:08: Yeah those were hard to memorise.

00:46:11 PI: So a bit more support there maybe?

00:46:13: Uh-huh. Because it's very different.

00:46:16 PI: Okay, this is good. Any of the other things that you do be wondering about?

00:46:25: The little words. Just like the 'ag', the 'ar'

00:46:30 PI: Prepositions.

00:46:31: Just why they were there. We might be a little too analytical as a group for...

00:46:40 PI: (laughing) I think you are.

00:46:41: It's funny because I didn't focus on those immediate difficulties but I also didn't focus on the testable grammar so I just tried to say a sentence instead of...

00:46:48: Put words in order in the right way.

00:46:50: Yeah.

00:46:51: I would see like, 'ag' and 'ar' and not realise that both is like the infinitive of the preposition because then there was 'agam', 'agat' because those all went along together. I didn't make that connection.

00:47:07: I never did.

00:47:09: (group laughter)

00:47:11: I think one helpful way as well was connecting... like making up easy ways to remember certain words like the sound you make when you get stabbed in the back or the kneecapping thing. It definitely does help because like a lot of Irish you can see how it's related to other European languages but other times you're like, I'm not sure how to do this.

00:47:37 PI: And what was the thing that... in the entire course... what was the thing that you most enjoyed? That was the biggest thing that you got out of it?

00:47:50: Making fun of you.

00:47:52 PI: (laughing) Making fun of me? Thanks Learner 9.

00:47:54: You're welcome, you said be honest!

00:47:57: (group laughter)

00:48:00: I liked it too.

00:48:01: I feel like I can have a conversation now, that's exciting.

00:48:05 PI: A conversation in Irish?

00:48:08: It's a very simple one with someone that's helping me, but yes.

00:48:12 PI: Any cultural awareness outcome, or historical, or identity?

00:48:16: Irish football is terrifying (laughing).

00:48:18: (group laughter)

00:48:22: Hurling is... barbarous(?)

00:48:25: I have two songs that I downloaded on my iPhone and I listen to them all the time. I can understand... well I can't understand but I can discern many more of the words than I could. I thought it was just a run on sentence. I can discern them that much better now.

00:48:44: That's good. So the cultural elements, were they important parts of the course? Should we put more elements on culture or...

00:48:50: It's an interesting part of the course. I mean in terms of like helping me to speak Irish I don't know if they really helped but in terms of being interesting, yes.

00:49:01: They were an extra motivation to learn the language.

00:49:07: Just the video of the footballer or whatever it was that you put on there, um, I actually looked up other ones. You watch one on YouTube and you just follow a whole bunch of other ones.

00:49:21: I didn't find the culture particularly interesting.

00:49:23: (group laughter)

00:49:30: I don't like Irish television. But I really liked about the words English has borrowed, or this expression has come from this. You know, like, the lore and easy peasy and stuff like that. I found that fascinating.

00:49:45 PI: Okay, cool. So there was something for everyone even if you didn't like the... did I see no blacks, no dogs, no Irish on your office... (laughing)

00:49:52: (laughing) Yeah, you did.

00:49:57: So the last thing I'm going to ask is would you continue to learn Irish?

00:50:05: Yeah.

00:50:07: Yes.

00:50:08: Would we, like in what situation?

00:50:09: Would you like to continue learning Irish and would you continue if you had the opportunity?

00:50:14: Yes.

00:50:16: And I'll probably stick with the Duolingo for now.

00:50:20: I'll probably keep doing Duolingo. I think I sort of viewed this as a one-time thing just to learn a few things. Like learn about the language, get something to talk about. And then I'd definitely be motivated to learn more if there was a bigger reason than that. If I was going to go to Ireland or something but I pretty much signed up just for fun.

00:50:50: Well there will be an aftercare home but we'll conclude that there now.

One-on-One Interview Transcripts

Learner 1 Interview

00:00:01: Oisín: One on one focus group interview with Learner 1. How are you doing?

00:00:05: Learner 1: Well! how are you doing?

00:00:06: Oisín: I'm very good. So, em, just to state Learner 1 left the course early. Why did you leave the course early?

00:00:14: Learner 1: Because I was travelling so much and missing so much and missing so much of it so it was too hard for me to catch back up because I didn't even have any internet so I couldn't even do the lessons...

00:00:24: Oisín: The online stuff, yeah...

00:00:25: Learner 1: No... and then it just became... I do work full-time and it became too much to try to catch up on a week's worth of stuff and then stay current.

00:00:34: Oisín: Yeah. Yeah.

00:00:35: Learner 1: It was just too much.

00:00:37: Oisín: There was just too much going on in your life. Okay. So, in the time that you did spend on the course, do you feel... how do you feel that your skills within the Irish language developed? What can you tell me about that?

00:00:47: Learner 1: Well, I really loved it. I thought it was really fun. I looked forward to going to class and doing the exercises. Um... I at least got better, I learned something. I got better, you know? I understood the slender and the broad vowels. I understood some of the foundational things, I understood, finally, about the way that you use the verb 'to be'.

00:01:09: Oisín: (laughing) Yeah.

00:01:09: Learner 1: Um... you know, so I feel like I learned some foundational things. I think I never got good at being able to read and understand how things are supposed to sound.

00:01:20: Oisín: Okay. So eh... pronunciation?

00:01:23: Learner 1: Yeah. I don't think I ever really got good at that.

00:01:24: Oisín: Yeah, okay.

00:01:25: Learner 1: But... I feel like I was only in the course for a couple of weeks and I think if I had been able to do the whole thing I would've been able to do that.

00:01:32: Oisín: Yeah. Indeed. Em, so, while you were participating in the course what were the resources you used? What were the main ones you used and how?

00:01:41: Learner 1: I used the Duolingo and there was another one you had sent us. A European version of it, sort of.

00:01:48: Oisín: Oh, Speakapps?

00:01:49: Learner 1: Um... was it Speakapps?

00:01:50: Oisín: Or (inaudible)?

00:01:51: Learner 1: No it must have been... whatever you sent us in the first...

00:01:53: Oisín: Oh, the Opia explor... the explorations where you click to go ahead, was it that one?

00:01:59: Learner 1: Whatever was on the syllabus.

00:02:01: Oisín: (laughing) Okay. You used?

00:02:02: Learner 1: (laughing) I used.

00:02:03: Oisín: (laughing) Okay.

00:02:03: Learner 1: And I think it might have been Speakapps. It had a European Union thing...

00:02:07: Oisín: It was Speakapps, yeah.

00:02:08: Learner 1: Okay. And the Duolingo, and you had sent us some links for pronunciation.

00:02:12: Oisín: Yeah, yeah.

00:02:13: Learner 1: That, I used a little bit.

00:02:15: Oisín: Was that on Soundcloud or with the flashcards?

00:02:18: Learner 1: Soundcloud.

00:02:19: Oisín: Soundcloud. Okay. And how did you find the resources? How did you find using them? Which one did you like using and which one did you most dislike using?

00:02:29: Learner 1: Well the easiest was Duolingo because it had coded in the accent keys so if you wanted to spell something or do something you could use that key without having to go in and figure out where it was versus the thing that was the external resource where you could type it in and hear it, you had to type it in...

00:02:49: Oisín: Okay.

00:02:49: Learner 1: ...you had to type it in and you had to find the accent keys. Like, I found some words the accent made a difference whether it had an accent or not...

00:02:56: Oisín: Oh, it does yeah. It makes a massive difference.

00:02:59: Learner 1: And so... I felt that that was hard for me to use because I didn't have a computer that was easy to use the accented keys on.

00:03:06: Oisín: You have the... it's a PC is it?

00:03:09: Learner 1: Yeah, yeah.

00:03:10: Oisín Yeah you have to set up the keyboard.

00:03:12: Learner 1: And I hadn't done that.

00:03:13: Oisín: I probably should have done that with you. (laughing)

00:03:16: Learner 1: But that's okay because that made it that bit more challenging to use that external resource

00:03:21: Oisín: Yeah.

00:03:22: Learner 1: And... one of the things I know we talked about in class is some of the Duolingo sentences you could hear the pronunciation and some of them you couldn't...

00:03:27: Oisín: Mmm, yeah.

00:03:28: Learner 1: It was probably a resource issue but in an ideal world it would have been cool for all of them to be soundable.

00:03:35: Oisín: Yeah.

00:03:35: Learner 1: Where you could click on it.

00:03:37: Oisín: Yeah, I told them that last week. (laughing) So, what were your opinions on the assignments that I gave out, so say, there was the Duolingo assignment where we had one week

where you had to complete a skill and then there was the speaking assignments as well on Soundcloud. How did you feel about those on a weekly basis?

00:03:56: Learner 1: I felt that the workload was reasonable while I wasn't travelling.

00:04:00: Oisín: Yeah.

00:04:01: Learner 1: So I felt that while I was here, even though I have a full-time job, it was fine. Um... I could never get my computer to do the Soundcloud thing where I could speak it, so I never did it.

00:04:17: Oisín: Okay, right. So that's an issue with Soundcloud then?

00:04:21: Learner 1: Yeah. And then we tried it on my phone and I don't remember... because I have an iPhone it wasn't as easy

00:04:25: Oisín: Yeah.

00:04:26: Learner 1: So like, I would say I know that I can... if there's a way... I have Whatsapp, you can speak messages into Whatsapp, or maybe another way of doing it. I just know that for people that had an iPhone it tended to be weirder and I couldn't do it on my PC.

00:04:44: Oisín: Okay. So maybe in the future there should be several ways to submit the audio files instead of just one.

00:04:50: Learner 1: Maybe.

00:04:51: Oisín: Yeah.

00:04:52: Learner 1: Maybe we could text them to you or something.

00:04:54: Oisín: Yeah, well there was meant to be something central on Speakapps but it failed so that was the reason we went with Soundcloud. So, em... did you come across any other Irish resources yourself that you used beyond what I provided you?

00:05:07: Learner 1: Yeah. There... well... I... I... just because I like languages would just basically type things in Google and just look at them.

00:05:18: Oisín: Okay.

00:05:20: Learner 1: And I don't remember what they were. It would depend on what I was doing at the time, and it was fun to see what was out there, and to see the different dialects. There's a lot. More than you would think.

00:05:28: Oisín: (laughing) There is. There's a lot of digitally managed resources. Em... so... What was I going to say? Em... so which digital resource did you most like?

00:05:43: Learner 1: I liked the Duolingo because it was the easiest. Like I said the accent things were already there, you didn't have to fuss around with anything and you could hear it. Um... that was the easiest for me typing. I did hear some of the Soundcloud videos that you made... or audios that you made, where we had the sheets where we could read along. That was the most helpful.

00:06:05: Oisín: Okay.

00:06:05: Learner 1: Because I could hear a whole (emphasised) list of phrases and read them so I could hear how they were pronounced. On Duolingo the sound bites were so small that I couldn't really hear the cadence of the language.

00:06:17: Oisín: Okay, right. I understand.

00:06:18: Learner 1: Your phrases were longer. They were more... and I know Irish isn't a sing-songy language but we could hear more how the whole depth of a conversation would go.

00:06:27: Oisín: Yes, yes, okay I understand. The next one is... what was I going to ask? The Speakapps classroom itself, what did you think of that as a layout?

00:06:40: Learner 1: I didn't... there weren't that many things on there during the time I was taking the course. Most of it was on Duolingo, except for the very beginning. So I don't really remember it.

00:06:52: Oisín: (laughing) You should log in again because there's loads of stuff now...

00:06:55: Learner 1: Really?

00:06:57: Oisín: Yeah, I've put in tons of stuff. Em... which elements of the face to face class helped you the most and helped you the least?

00:07:05: Learner 1: Well... I thought a lot about this because I knew we were going to be doing a little focus group and I know that part of your focus is, how do I do blended learning? And I've taken a lot of language classes, I speak a lot of languages. I, kind of, was sad that it was only two days a week. And, for me, it was the discipline factor. I could sit on my couch and do Duolingo with my cat. I could do that. But there was something about interfacing with a native speaker or having the class stuff that just reinforced it every day in a more meaningful way for me.

00:07:44: Oisín: Okay. Great.

00:07:46: Learner 1: Um... so, I, in an ideal world, I would've liked to see a quick class four days a week plus these exercises to do at home. And it would've helped me learn a language better.

00:07:56: Oisín: Yeah, yeah. Of course, yeah. Well in an ideal world I would've liked to do five days a week but it's just about fitting it into everyone's schedules.

00:08:05: Learner 1: Totally. And I don't mean for that to be a criticism.

00:08:09: Oisín: No, no, not at all. Yeah, I understand, obviously more frequent interaction... What did you most enjoy about the face to face? Was it the listening that we did, or was it the speaking when I got everyone talking? What was it that helped you the most?

00:08:25: Learner 1: I liked hearing you talk. I really did. And to hear how it sounds because the sounds do change depending on what words come before and after them. Whereas the people taking the course, like me, wouldn't have known how to change the sounds. But you did. So that was helpful to hear you speaking and reading some of the things on the board and even asking us questions. That was very very helpful in the face to face. At the beginning I didn't even know what you were asking but after you asked two or three people, I was like, "oh, that means that. That means that." So I could start making these associations in my brain. Um... what did I like the least? I'll tell you what I would have liked to have seen but I didn't. That I found very helpful when I started taking German.

00:09:11: Oisín: Okay.

00:09:12: Learner 1: These cards that had words on them that they would just hold them up. Like I could start speaking very minimally in like a week because the teacher would hold up these cards like, "rain", "sun", "wind". You know, like, this is the weather. So we started having vocabulary very early on. Really basic sentences but at least I felt like I wasn't mute. You know, I could say some things. And I know you did that with things like "hello" and "how are you?" but those are so canned, that once you say those things there's nothing else to say.

00:09:46: Oisín: Okay.

00:09:47: Learner 1: It would have been nice to get more nouns.

00:09:52: Oisín: And adjectives and stuff. Yeah.

00:09:53: Learner 1: Just to be able to say, like, "Hi, my name's Learner 1." "It's sunny today." Or, if we're in Ireland, "it's raining today! It's cloudy."

00:10:01: Oisín: (laughing) Yeah. I get you. We did get there in the end though.

00:10:06: Learner 1: (laughing) I'm sure. I'm sure.

00:10:07: Oisín: But you're... yeah I do get you. Maybe some things to help scaffold conversations, or physical things that you could hold that could help you scaffold the conversation a bit more.

00:10:19: Learner 1: And to help us be comfortable speaking, like, you know, she would hold up sun and be like, (speaks German). And we would all go, (speaks German). And we were like, "oh, that's sun." But it not only helps us to use the verbs in a sentence appropriately but with vocabulary. So stuff like that was really helpful.

00:10:40: Oisín: Okay. Lots of ideas now in the brain. So the next one I was going to say was, what changes or suggestions would you make to improve the course for yourself? You mentioned there having a bit more vocabulary and resources to help you scaffold. Anything else?

00:11:00: Learner 1: I think you're a wonderful teacher, so I have zero suggestions on that part. You're enthusiastic, you're supportive, you made us feel good about what we were doing and helped to reduce everybody's self-consciousness. So that was wonderful. So I really don't have any suggestions. The only thing was what I said about having pictures of things and making us pronounce them because it's helpful.

00:11:24: Oisín: Yeah, yeah. Okay. Thanks very much, that's a lovely compliment. Em... last question. Em... would you continue to learn Irish? Would you take it back up in the future?

00:11:34: Learner 1: I would!

00:11:35: Oisín: You would?

00:11:36: Learner 1: I was gonna ask you, if you come back if I could just take it again. I'm sorry I had to, just because of my travel schedule, not do it as seriously as I would've liked to.

00:11:47: Oisín: Well all the resources are still there on the course and it's all there for free. Thanks very much...(recording ends)

Learner 7 Interview

00:00:01: Oisín: Focus group, one on one interview with Learner 6. How are you doing? Are you well? Good. Okay. So, can you tell me what aims and goals did you have for taking the course?

00:00:15: Learner 6: Well, in the beginning, curiosity.

00:00:18: Oisín: Okay, go maith.

00:00:19: Learner 6: Because I did this DNA test and they said that I'm part Irish so I was curious how to speak this language.

00:00:31: Oisín: Okay. And eh, where did you want to get, what level did you want to reach after the six weeks? What was your intention? Was it just to learn a bit about the language and culture or was it to be able to have, like, a conversation or something like this?

00:00:46: Learner 6: I would like to learn about the culture. And also to communicate with some of my Irish friends. So just the basic thing and then because they know English too.

00:00:59: Oisín: Okay, yeah. Of course. Em, do you feel that you've achieved that goal?

00:01:04: Learner 6: I think that I maybe impressed him.

00:01:09: Oisín: I think you made good progress. Okay, em, so... just discussing some of the technologies. Em... what technologies do you feel or what activities that we engaged in during the course do you feel helped you develop your listening skill?

00:01:28: Learner 6: Well, I used too much Duolingo. After, lately, I started to try to listen to Internet, Youtube, TV4 or something?

00:01:45: Oisín: TG4? Yeah, that's our Irish language station. That's great.

00:01:52: Learner 6: In the beginning it was really hard because I could not understand anything. But last week I tried again and then I started to understand something.

00:02:05: Oisín: Brilliant.

00:02:05: Learner 6: It was good.

00:02:06: Oisín: Excellent. And did you feel a sense of accomplishment from that?

00:02:09: Learner 6: Yeah.

00:02:09: Oisín: That's great. Em... with regard to the speaking skill, how do you feel your speaking skill has come on?

00:02:17: Learner 6: Hmm... This is still... (inaudible) I know the word but is hard to pronounce.

00:02:26: Oisín: Yeah. Okay. Yeah. It's a bit of a tongue twister for you isn't it? Okay, so... what resources did you use the most during the course?

00:02:38: Learner 6: Well what I used the most was Duolingo.

00:02:44: Oisín: Duolingo. Okay.

00:02:45: Learner 6: But I used also Soundcloud, I think it was helpful. Yeah this Internet, this application for iPhones and I try to listen to words... They have a set of words for the day and I try to follow that. And the TV, like.

00:03:10: Oisín: Okay. Brilliant. So what areas of the course do you think were lacking or

could do with improvement?

00:03:21: Learner 6: In terms of time, I think it was good for the purpose that you had. But maybe for me there could be more listening.

00:03:39: Oisín: More listening. Okay.

00:03:40: Learner 6: I know that practice in class its different to speak because there is many people. But yeah I think this is also important. I could not get maybe the same level. If I read I know more than if I speak, you know?

00:04:01: Oisín: Yeah, yeah. Okay. But em...Alright. Excellent. So what were your opinions, or opinion, about using Duolingo and the assignments that were given through the schools platform?

00:04:16: Learner 6: One thing that I liked is that, um... these assignments always seemed to know exactly where I was weak and this was good because I could practice more. I think without that I would not practice again.

00:04:32: Oisín: (laughing) As much. Yeah. Okay. Em... do you think these assignments helped you to understand more about the language and subsequently to speak it in the class?

00:04:45: Learner 6: I think so, yeah. Em... One thing that I noticed was sometimes I didn't pay attention to some points in the assignments. And then when I came for the class and you said something that attracted the attention for something. Then those assignments were clear for me.

00:05:06: Oisín: Okay, yeah. Right.

00:05:09: Learner 6: So it's not only the assignments on Duolingo but we need this, yeah, this (inaudible) class.

00:05:17: Oisín: Okay, yeah. That actually brings me to another question. Em... did you feel that the face-to-face classes and the use of technologies online, did they gel together well or were they sort of disconnected for you?

00:05:35: Maybe in the class... I don't know. I felt a little bit desynchronised with Duolingo.

Is like, I wasn't doing Duolingo very fast. In the class maybe we could synchronise a little bit better. Maybe you could say, I don't know, maybe achievements to this point. Then give a kind of explanation. Even if there they have it too but is not the same thing that someone trying to explain and attracting the attention to that. So it could be easier to follow Duolingo and maybe to learn faster.

00:06:16: Oisín: Okay. Did you use any of the other resources that were posted

on Speakapps? The... Oppia exercises or the Anki flashcards? Did you make much use

of those?

00:06:28: Learner 6: Yes, yes. I used the cards.

00:06:30: Oisín: Okay.

00:06:31: Learner 6: Not Oppia.

00:06:33: Oisín: You didn't use Oppia? Right. Okay.

00:06:35: Learner 6: Um... yeah. Basically also the other links that you put in were very

helpful.

00:06:42: Oisín: Okay. And did you find that you accessed them more or less than Duolingo?

00:06:47: Learner 6: Less than Duolingo.

00:06:50: Oisín: Less, and is there any reason for that do you think?

00:06:52: Learner 6: I think that because of my level in the beginning. So I just wanted to

have some vocabulary to be able to understand the sentence and go to the grammar.

00:07:05: Oisín: Mmm. Okay.

00:07:05: Learner 6: So yeah. I think this was very helpful with Duolingo because I knew

nothing about the language and I started to have some vocabulary to go up.

00:07:15: Oisín: Okay. Excellent. With regard to the speaking assignments that I gave out on

Soundcloud. Did you find that they helped you prepare for the class and remember what we

had covered or did you find that they were valueless? What did you think of them?

00:07:32: Learner 6: I think they... the experience that I had most that attracted more of my

attention was with the family exercise. Because maybe it was the most difficult part that I had

in this class. And this was very helpful to record and listen to myself. So I could try to say the

words more correctly when I did this exercise. And before that I could not even try to say them.

00:08:08: Oisín: Okay. Em... with the digital resources what was your most preferred thing or

tool that we used?

00:08:23: Learner 6: Well, I used more Duolingo but I know that it's not complete.

00:08:34: Oisín: Okay, indeed. That's fine. And what was your least preferred thing, that was

in the course, online?

00:08:39: Learner 6: I think that the link that you mentioned about the... well the link that you

could put the word and then listen the word.

00:08:49: Oisín: Abair. Yeah.

00:08:50: Learner 6: Yeah. Um... it's okay but the pronunciation seems not so as we had in the class.

00:09:00 Oisín: Not as natural?

00:09:00: Learner 6: Yeah.

00:09:01: Oisín: Okay. That's fine. Em... em... which elements of the face to face class em... did you most like and least like? We'll start with which element of the face to face class did you most enjoy?

00:09:17: Learner 6: I liked the... dynamic to try to speak with the others. This was good. But in the beginning was hard because nobody could help with the other one.

00:09:31: Oisín: Yeah. Indeed. Yeah.

00:09:34: Learner 6: We didn't know if we could say correctly or not.

00:09:37: Oisín: Okay. Right.

00:09:39: Learner 6: Maybe if we have um... I don't know some kind of... someone following more and trying to correct in the beginning it could be helpful.

00:09:53: Oisín: Perhaps some more example exercises from native speakers?

00:09:57: Learner 6: Maybe.

00:09:58: Oisín: ...prior to the course or maybe a one on one tutorial or something like this before the course?

00:10:06: Learner 6: Yeah because when we had the three it was really good because we could exchange some experience with some native Irish.

00:10:18: Oisín: Yeah, when Mairéad and Caitríona came in. Yeah that was a fun class. And what was your least favourite thing in the face to face classes? What did you least enjoy?

00:10:28: Learner 6: Um... I don't know. (laughing) Nothing.

00:10:31: Oisín: (laughing) Nothing? Okay. Well, that's alright. Em... did you come across any other resources yourself? You mentioned TG4 that I hadn't mentioned and YouTube. Did you come across anything else that helped you with Irish?

00:10:47: Learner 6: Uh... I used some podcasts but it's hard to... maybe you could improve that to give some directions to say which kind of podcasts would be better to start to listen to.

00:11:01: Oisín: Okay. What podcasts did you use?

00:11:06: Learner 6: Some podcasts that tried to teach.

00:11:09: Oisín: Do you remember their names?

00:11:11: Learner 6: I can send it to you.

00:11:12: Oisín: Okay yeah.

00:11:14: Learner 6: I checked also yesterday. Uh... but yeah some of them is not just to teach Irish but in the middle they start to speak English. It's just confusing.

00:11:26: Oisín: Yeah, indeed. And they speak Irish English as well.

00:11:30: Oisín: Now. What changes or suggestions would you make to the course to improve it? What would you do if you were to do it?

00:11:39: Learner 6: Well, I would say in the perspective of what I felt. I think this... in the class in the beginning maybe if we have someone following the other in the beginning and after when we have more confidence and we know it is okay to do the... maybe one to follow better in the beginning and say how you are saying things and it would be helpful.

00:12:05: Oisín: Okay, so more support for pronunciation in the beginning.

00:12:07: Learner 6: Yeah.

00:12:08: Oisín: Okay. That's great. Em... and now that the course is over, what do you feel

you need to work on?

00:12:18: Learner 6: Pronunciation.

00:12:19: Oisín: Pronunciation. Okay. Any other area of the language that you feel you need to pay attention to or that you would...

00:12:27: Learner 6: Well... um... writing I know is still difficult.

00:12:33: Oisín: Writing. Okay.

00:12:35: Learner 6: It was not the focus of the course.

00:12:37: Oisín: Indeed.

00:12:38: Learner 6: Maybe I will practice this and pronunciation too but I think writing will be less than pronunciation.

00:12:45: Oisín: Okay. And, how do you feel about the level of your Irish after you've completed... after this five and a half weeks?

00:12:52: Learner 6: Well, I think I improved a lot because I could not even say the word, eh... man... or woman...

00:13:02: Oisín: (laughing) Yeah.

00:13:03: Learner 6: ...or woman and now I can say some sentences. I think this is

improvement.

00:13:09: Oisín: Yeah, indeed. And, last question... Final question. Em... Will you continue learning Irish?

00:13:17: Learner 6: I will try. This was one question that I brought up because I don't know how to do it. I know that in my city, in Brazil, Coritiba, we have some people from Ireland

but I don't know about the course. So I need to check. Probably I will not have the support there. And I will need

to find some online resource to continue there. Maybe some online classes and if you know some online classes that I could take by skype or things like that.

00:13:54: Oisín. Mmhmm. Yeah.

00:13:55: Learner 6: Things like that. This I think will be the way to continue that.

00:13:59: Oisín: Well I can certainly tell you some things. Well, thanks very much Learner 6.

That's it...(recording ends)

Appendix L Recruitment email and participant consent form

Recruitment Email

To whom it may concern,

My name is Oisín Ó Doinn and I am third year PhD candidate with Dublin City University in the Republic of Ireland. I am researching blended learning for ab initio language learners. Specifically, I am developing an Irish language course for beginners in order to explore this subject. The course focuses on the development of the speaking and listening skills. The course itself is comprised of a blend of online technologies and face to face classes. Currently, I am looking for individuals to participate in this language course. The course is being run as the main study for my PhD. In the course of the study I hope to identify contradictions and tensions that emerge in such a learning environment in order to determine practices and procedures for blended language course design and software design among other things.

The study will run in the first half of the fall semester, 2016 for approximately 6 weeks at Carnegie Mellon University. Face to face classes will be held twice a week with other learning taking place digitally via apps and websites. The course aims to equip participants with basic knowledge of the Irish language and Ireland. If you are interest in participating in this study or if you have any other questions about my research or myself feel free to contact me at odoinn@gmail.com. If you know anyone who might be interested in participating in such a course I would appreciate if you could forward them this email.

Le gach dea-ghuí, (With every kind regard)

Oisín Ó Doinn

Carnegie Mellon University Informed Consent Form for Participation in Research

Study Title: Implementing a cultural historical activity theory approach in a blended language course for ab initio learners of Irish

Principal Investigator (PI): Assistant Teaching Professor Thomas Werner, Department of Philosophy, Carnegie Mellon University, 5000 Forbes Avenue, Baker Hall 155F, Pittsburgh, PA 15213
Email: twerner@andrew.cmu.edu

Co-Investigator (CP): Mr. Oisín Ó Doinn, PhD Candidate
Fiontar, Dublin City University, Glasnevin, Dublin, Republic of Ireland.
00353-871330804
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Other Investigator(s): Dr. Mairéad Nic Giolla Mhichíl (Primary supervisor)
Email: mairead.nicgiollamhichil@dcu.ie
Dr. Peadar Ó Flatharta, (Secondary supervisor)

Purpose of this Study

The purpose of the study is to identify the contradictions and tensions that emerge during an introductory blended language learning course designed for ab initio learners of Irish. The study blends computer aided language learning (CALL) tools with face-to-face classes in order to develop ab initio learners' speaking and listening skills as well as their general knowledge of the Irish language. The CALL tools that have been selected for the study (Duolingo and SpeakApps) have been shown to develop learners' language skills. These tools are also available for free online and are being used by thousands and in some cases millions of people for language learning. This is where the importance of this project lies. In light of the proliferation of freely available CALL tools the principle investigator (PI) seeks to investigate methods for the integration of such CALL tools into formal and physical educational environments in order to enhance Irish teaching, blended learning course design and ab initio language education in general.

Procedures

If you agree to participate in this study you will be asked to attend a face-to-face Irish class twice a week for up to one hour. At the beginning of the course you will be asked to complete a learner questionnaire. The questionnaire is designed to gain insight into your language learning experience and your experience of using Information and Communication Technologies for this purpose. Your answers will help to generate a class profile. During face-to-face classes you will be asked to participate in discussions surrounding elements of the Irish language and Ireland's culture. You will also be asked to engage in role plays and language games as well as other communicative exercises.

Portions of certain face-to-face classes will be devoted to training in the CALL tools to develop different language skills and language learning strategies for Irish. The researcher intends to study the particular actions that participants take with these tools. Leading on from the content covered in class as a part of the course's syllabus, participants will be asked to complete exercises using certain tools. The explicit purpose of these exercises is to develop the language learners speaking and listening skills. General knowledge of the Irish language will also be developed with the use of these tools. It is intended that these exercises will support students using the Irish language for communicative purposes. The exercises do not require an excessive amount of time to complete. Other learning tools will be highlighted to the learner to facilitate independent study of the language also. The PI will make observations based on the activities of the students after each contact. Additionally, the PI will make observations based on the learners' use of the online tools.

In order to gather data from the perspective of the learner, participants will be asked to complete a weekly feedback sheet. This feedback will help the researcher to understand the learner's experience and will also enable him to identify contradictions in the courses activity system.

At the end of the study, participants will be asked to take part in a focus group in order to explore their experiences of and feelings towards the tools, classroom assignments and the language course. The focus group interview will be recorded using digital audio recording equipment to facilitate later analyses by the researcher. The recordings will be used to gain a deeper understanding of the participants' perspective of the classrooms activity system. They will also assist the researcher in triangulating his data sets.

The expected duration of participation in the study is five weeks. The classes will be held on campus in Baker Hall.

Participant Requirements

In order to participate in this research you must be at least 18 years of age or older. You must also be an Irish language learning beginner.

Risks

The risks and discomfort associated with participation in this study are no greater than those ordinarily encountered in daily life. The participants are not exposed to any physical danger that is not already present in every classroom. The only potential risks that the PI can identify are potentially physiological and social in nature.

Psychological risk: The only potential psychological risk that the PI can identify is that of cyber-bullying or trolling. Participants will be informed prior to using the CALL tools of the conduct that is expected of them online and the general protocols they are to follow in the event of cyber-bullying or trolling. Should this situation arise participants are asked to contact either investigator listed above. This risk is not considered likely to occur.

Social risk: The primary risk to the research participants concerns anonymity and confidentiality. Due to the small size of the class research participants may be able to recognize contributions or quotes from other participants in the researcher's published findings. In order to reduce the risks to participant anonymity the PI will establish a coding procedure to mask their identity using codes such as Learner 1, Learner 2 etc... These codes will be used to refer to the participants in the study across observation sheets, transcripts and usernames on the CALL tools. Data will be secured in an encrypted form on a password protected laptop. The data that is collected will also not be discussed by the PI with anyone else outside of the PI's supervisors and the external examiners of the PI's thesis. Other stakeholders in the study may also potentially view the study's records such as the Irish Research Council, Dublin City University's Research Ethics Committee, the Institutional Review Board at Carnegie Mellon or appropriate federal agencies like the Office for Human Research Protections.

Benefits

There may be no personal benefit from your participation in the study but the knowledge received may be of value to humanity.

Compensation & Costs

There is no compensation for participation in this study. There will be no cost to you if you participate in this study.

Confidentiality

By participating in the study, you understand and agree that Carnegie Mellon may be required to disclose your consent form, data and other personally identifiable information as required by law, regulation, subpoena or court order. Otherwise, your confidentiality will be maintained in the following manner:

Your data and consent form will be kept separate. Your research data will be stored in a secure location on Carnegie Mellon property. Sharing of data with other researchers will only be done in such a manner that you will not be identified. By participating, you understand and agree that the data and information gathered during this study may be used by Carnegie Mellon and published and/or disclosed by Carnegie Mellon to others outside of Carnegie Mellon. However, your name,

address, contact information and other direct personal identifiers will not be mentioned in any such publication or dissemination of the research data and/or results by Carnegie Mellon. Note that per regulation all research data must be kept for a minimum of 3 years.

Only the PI, Faculty Advisor, the PSI's supervisors, and his external examiners will have access to the information. However, the Irish Research Council, Dublin City University's Research Ethics Committee, or appropriate federal agencies like the Office for Human Research Protections may review this study's records.

All data collected during the course of the study will be anonymized using codes and will be stored on the PI's password protected computer in encrypted file format. The researchers will take the following steps to protect participants' identities during this study: (1) Each participant will be assigned a code such as Learner 1, Learner 2...; (2) The researchers will record any data collected during the study by code, not by name; (3) Any original recordings or data files will be stored in a secured location accessed only by authorized researchers.

In order to protect research participants' confidentiality the focus group's audio recording will be transcribed and the name of participants will be replaced with the codes outlined above. The digital recording will be encrypted and kept secure on the researcher's password protected computer. Only the PI, Faculty Advisor, the PSI's supervisors, and his external examiners will have access to the recording. However, the Irish Research Council, Dublin City University's Research Ethics Committee, or appropriate federal agencies like the Office for Human Research Protections may review this study's records.

Rights

Your participation is voluntary. You are free to stop your participation at any point. Refusal to participate or withdrawal of your consent or discontinued participation in the study will not result in any penalty or loss of benefits or rights to which you might otherwise be entitled. The PI may at his discretion remove you from the study for any of a number of reasons. In such an event, you will not suffer any penalty or loss of benefits or rights which you might otherwise be entitled.

Right to Ask Questions & Contact Information

If you have any questions about this study, you should feel free to ask them now. If you have questions later, desire additional information, or wish to withdraw your participation please contact the PI by mail, phone or e-mail in accordance with the contact information listed on the first page of this consent.

If you have questions pertaining to your rights as a research participant; or to report concerns to this study, you should contact the Office of Research Integrity and Compliance at Carnegie Mellon University. Email: irb-review@andrew.cmu.edu . Phone: 412-268-1901 or 412-268-5460.

Voluntary Consent

By signing below, you agree that the above information has been explained to you and all your current questions have been answered. You are encouraged ask questions about any aspect of this research study during the course of the study and in the future. By signing this form, you agree to participate in this research study. A copy of the consent form will be given to you.

PRINT PARTICIPANT'S NAME

PARTICIPANT SIGNATURE

DATE

I certify that I have explained the nature and purpose of this research study to the above individual and I have discussed the potential benefits and possible risks of participation in the study. Any questions the individual has about this study have been answered and any future questions will be answered as they arise.

SIGNATURE OF PERSON OBTAINING CONSENT

DATE

Appendix M Course descriptor

Course descriptor

Course Title:	Introduction to Irish
School:	Dietrich College, Department of Philosophy
Location:	226a Baker Hall, Carnegie Mellon University
Level:	Beginners
Length of course:	Six weeks
ECTS Credit rating:	1

Description:

This Irish language course is aimed at those with no prior knowledge of Irish. The course will focus on giving students the skills to talk about common topics such as the family, hobbies and pastimes and giving information about themselves. The course adheres to a blended learning format. Another aim of the course is to provide students with the appropriate skills and knowledge to facilitate their independent learning and interaction with the language outside of the classroom. Additionally, the course will expose students to Ireland's unique culture and history.

By the end of the course students will be able to engage in simple everyday interactions. They will also have acquired a basic understanding of the languages grammar and orthography.

Learning Outcomes:

On successful completion of this course students will be able to:

- Introduce themselves and others and ask and answer questions about personal details such as where he/she lives, people they know and things they have.
- Understand sentences and frequently used expressions related to areas of most immediate relevance (e.g. very basic personal and family information, shopping, local geography, employment).
- Communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters.
- Describe in simple terms aspects of their background, immediate environment and matters in areas of immediate need.
- Use a variety of online language learning tools to interact with the language independently.

Course format:

The course will follow a blended learning format. Students will be required to participate in online activities and face-to-face classes. Students will be given weekly assignments using a variety of different online and traditional resources. These resources will focus on the development of the student's oral and aural competence as well as the students' metacognitive learning strategies.

The face-to-face classes will take a communicative approach to language learning. Communication is the ultimate goal of the course.

Indicative Time Allowance:

This will vary from student to students the indicative total time spent should be approximately:

4 hours per week – 30 hours

This is roughly the equivalent to one ECTS credit (ECTS and WEINGARTEN, 2017).

Assessment:

There is no assessment for this course.

Appendix N Script and translation for monologue about the topic *The Family*

Teaghlach Uí Dhoinn

Dia daoibh. Is mise Oisín Ó Doinn agus is Éireannach mé. Is as Baile Átha Cliath mé agus táim i mo chónaí i Ráth Eanaigh. Tá cúigear i mo theaghlach. Mise, mo mháthair Yvonne agus m'athair Seán. Tá deartháir amháin agus deirfiúr amháin agam. Sadhbh is ainm mo dheirfiúr agus Tiarnán is ainm mo dheartháir. Is mise an duine is sine sa teaghlach. Tá Tiarnán sa lár agus is í Sadhbh an duine is óige.

Is cúntasóir í mo mháthair agus is ríomhchlárthóir é m'athair. Obríonn mo mháthair leis an mbanc agus oibríonn m'athair le hArd Oifig an Phoist. Is maith leo dul ag siúl agus dul ag rothaíocht.

Is mac léinn eolaíochta í mo dheirfiúr. Is maith léi damhsa Gaelach agus ballet.

Is mac léinn leighis é mo dheartháir. Is breá leis spórt, go háirithe an pheil Ghaelach.

Tá mo dheirfiúr, mo mháthair agus m'athair ina gcónaí i mBaile Átha Cliatha freisin. Níl Tiarnán ina chónaí i mBaile Átha Cliath. Tá sé ina chónaí i Luimneach.

English Translation

The Ó Doinn Household

Hello to you all. I'm Oisín Ó Doinn and I am Irish. I am from Dublin and I live in Raheny. There are five people in my family. Myself, my mother Yvonne and my father Seán. I have one brother and one sister. My sister's name is Sadhbh and my brother's name is Tiarnán. I am the eldest in the family. Tiarnán is in the middle and Sadhbh is the youngest person.

My mother is an accountant and my father is a computer programmer. My mother works with the bank and my father works with the General Post Office. They like to go walking and cycling.

My sister is a science student. She likes Irish dancing and ballet.

My brother is a medical student. He loves sport, especially Gaelic football.

My sister, mother and father live in Dublin. Tiarnán does not live in Dublin. He lives in Limerick.

Appendix O Duolingo lesson breakdown and experience table

Sections	Duolingo skills	Lessons per skills	Total experience per skill	Week of completion	Experience per week
Section 1	Basics 1	3	30	Prior to the course	
	Basics 2	3	30	Prior to the course	
	Phrases	3	30	Prior to the course	90
	Food	5	50	Week 1	
	Animals	3	30	Week 1	
	Plurals	2	20	Week 1	
	Eclipses	2	20	Week 1	
	Lenition	1	10	Week 1	130
Section 2	Clothing	2	20	Week 2	
	Possessive	2	20	Week 2	
	Present Tense	7	70	Week 2	110
	Colours	2	20	Week 3	
	Questions	2	20	Week 3	
	Conjunctions	1	10	Week 3	
	Prepositions 1	5	50	Week 3	100
	Ireland	3	30	Week 4	
	Dates/times	8	80	Week 4	
	Family	3	30	Week 4	140
Section 3	Jobs	4	40	Week 5	
	Adjectives	9	90	Week 5	130
	Present tense	7	70	Week 6	
	Prepositions 2	5	50	Week 6	120
	Genitive Case	3	30		
	Negatives	1	10		
				Total Experience:	820XP

Appendix P Student reflective sheets

Reflective sheets for week 1

Name:.....Learner 1.....

Reflective sheet date:.....9/14/16.....

1. Please state the language challenges and goals you had this period:

It's been difficult to understand when the consonants change sound. (ie. d to g or t to ch).

I'm also having trouble imagining how certain words sound and the general cadence of the language.

2. What resources did you use to overcome these challenges and to pursue these goals?

I listened to the recordings from Oisín and they were helpful. I also listened to all of the Duolingo sound bytes.

3. What were the learning outcomes for you?

I'm starting to hear patterns.

4. What do you feel you are still uncertain about or would you like to improve upon?

Pronunciation.

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

I listen multiple times to the class recordings of the basic phrases.

6. 6. What are your impressions of the course so far? (What do you like/dislike? What problems are you having? etc...) having? etc...)

Oisín is a great teacher. He makes the class really fun.

I would like the DuoLingo material to have sound bytes for all of the material on its site.

It would help a lot for pronunciation. There is a website we can use to hear words, but it's hard to type in all the words with the accents. It would be a lot easier if Duolingo had the sound accessible for all the material, especially the sentences to hear how the words run together (or are separate).

I would also like to hear more native speaker conversations between multiple people if possible to hear different voices. Reading conversations from a sheet of paper/ worksheet/ program isn't the same as hearing the cadence of native speakers. And listening to Irish language internet is not the same because I have no clue what they are saying ;)

I would like to see a printed dialog of maybe 10-15 sentences and then be able to read along with the dialogue.

Name: Learner 2

Reflective sheet date: Introduction and Week One 9/18/16

1. Please state the language challenges and goals you had this period:

This week we started right into our backgrounds and where we are from. I'm having difficulty with the pronunciation and sounds of the words. It's like my tongue won't move in certain ways to arrangement these sounds. I'm hoping with practice it won't be as difficult to form the words and phrases. The sentence structure is taking a little to get used to as well.

I want to practice the sheets that we got this week and continue to use the Duolingo app. It has been a great help, especially when the little megaphone comes up. I have Duolingo repeat the sentence or word many times and then I try to duplicate it.

2. What resources did you use to overcome these challenges and to pursue these goals?

During class, I tried to write down the words in a way that I could remember to say them. The Abair website did help a lot with this as did the soundcloud recordings. Duolingo has been a great resource and has also been fun to use.

What I think helps the most though is the first 15min of class where we got up to talk to other people. My manager, Learner 1, is taking the class as well and we practice speaking the few things from class during the day.

3. What were the learning outcomes for you?

Well I worked a little bit a head while I could. As soon as I saw the flyer, I actually got on Duolingo and did the first couple of units. It did give me an opportunity to absorb the information before the fall semester started with my graduate classes and the start of my work busy season.

I feel like I'm starting to recognize the words a bit when I'm reading through the book pages and Duolingo.

4. What do you feel you are still uncertain about or would you like to improve upon?

It's not that I'm uncertain about anything, but it's all just a lot to process after the first week. It's been a while since I've learned another language. So after the first week, it's been a little overwhelming. But I'm really looking forward to this course!

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

When I went home to visit my family the following weekend, I was telling my mom, dad and sisters how to say different things on the Basic Irish Phrases document. It made me realize that actually saying it out loud is what I need more practice at. So I've been reading though the basic phrases and the background sheet outloud. I've also been trying to speak along with the SoundCloud recordings.

6. 6. What are your impressions of the course so far? (What do you like/dislike? What problems are you having? etc...) having? etc...)

Everything is great so far! I think the main thing that I'm having problems with is the pronunciation. Like I said before, my mouth just doesn't want to form the words. I hear you say something and when I try to mimic the word, it's just off. I'm hoping the soundcloud recordings can help me with this.

Name: Learner 4

Reflective sheet date: 9/14/2016

1. Please state the language challenges and goals you had this period:

Understanding the sounds and orthography of the language properly were my main challenges. I had no particular goals for the first few weeks other than to gain a proper starting point in the language.

2. What resources did you use to overcome these challenges and to pursue these goals?

Duolingo was a helpful resource since it can be used in a variety of places and times, but the abair website was also of great use for understanding the various words that were not pronounced in the Duolingo course. In addition, the soundcloud files were helpful for remembering the phrases from class.

3. What were the learning outcomes for you?

I feel that I am getting a good grasp overall thanks to classroom exposure and reinforcement from Duolingo and Soundcloud. In particular, the fact that the classroom subjects tend to at least partially match up with the Duolingo course track is of great use.

4. What do you feel you are still uncertain about or would you like to improve upon?

I still need to solidify my understanding of the orthography to make things easier in the future.

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

Doing practice with Duolingo and review with course materials available on the Speakapps site. I've been using nothing from outside the course recommendations while studying.

6. 6. What are your impressions of the course so far? (What do you like/dislike? What problems are you having? etc...) having? etc...)

The course has a good pace and manages to teach a good amount despite only meeting twice a week. The Duolingo course itself could be improved as far as listening practice goes, but that is a different matter. I have no particular dislikes so far.

Name:...Learner 5.....

Reflective sheet date:...Sept 19.....

1. Please state the language challenges and goals you had this period:

challenges: knowing how to pronounce the words goals: get some confidence with very basic conversation

2. What resources did you use to overcome these challenges and to pursue these goals?

The large amount of time spent during class speaking with each other has been very helpful in achieving the goal above. I have not really overcome the challenge above yet.

3. What were the learning outcomes for you?

Achieve a very basic conversational level.

4. What do you feel you are still uncertain about or would you like to improve upon?

Still uncertain about pronunciation from reading text. But I think that once I learn the words from speaking them I will recognize them in the text and that won't be a problem anymore so I don't really plan on focusing on the pronunciation directly right now.

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

Going to class, duolingo.

6. What are your impressions of the course so far? (What do you like/dislike? What problems are you having? etc...) having? etc...)

Very good class because of how interactive it is.

Name:.....Learner 9.....

Reflective sheet date:..9/14/16.....

1. Please state the language challenges and goals you had this period:

Memory! And hearing what I understand but then forgetting how to reply. My goals were to practice and be able to do the chunked learning, and I did pretty well. But then we got verbs and different persons (conjugations) and then more prepositional pronouns... Arg! (in the English sense). And then just getting the work done regularly while doing beginning of semester things for work. Actually, Learner 8 was helpful. He got over his frustration and decided to commit, find things to help himself, and he overtook me ☺. So I can ask him things now and he's more open to practicing together.

2. What resources did you use to overcome these challenges and to pursue these goals?

Learner 8 And I downloaded Nemo but I haven't worked with it. The Anki cards were helpful.

3. What were the learning outcomes for you?

Just surviving at this point, and being ready for class. Not ideal outcomes...

4. What do you feel you are still uncertain about or would you like to improve upon?

The verbs are giving me nightmares, and the prep pronouns. I'm trying to figure out how to remember them, how to make links to words I know in French, Spanish, German (like freagh, to answer, like the German word 'frage'-question). Cé (où), Cá (changes, but où/quoi), Conas (comment). Spanish: queso; English (siucra, cáca...), some Italian is in there too. Just to help memory.

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

Like above, practice with learner 8, making links to other languages I know, and just sheer grit. I also use the 'cheat sheets' created by the prof to memorize and practice, they're very helpful.

6. 6. What are your impressions of the course so far? (What do you like/dislike? What problems are you having? etc...) having? etc...)

Like my students, more vocab = more problems = more headaches. The Duolingo has some odd phrasing which could be good for catching 'rote' answers, but 'I pay for the girl' sounds really bizarre, and "She eats a meal without tea.' Weirdness. If these are culturally appropriate, okay, but to my ears, it's like 'I would never say that!' I also don't use the photocopies except for in class. But I know there is info in there that I should read... I'm just another student. Sigh.

Name: Learner 7

Reflective sheet date: September 14, 2016

1. Please state the language challenges and goals you had this period:

Challenges: Remembering basic conversational phrases and pronouncing them correctly

Goals: To be able to have a basic conversation, learn vocabulary words, become accustomed to the basic sentence structure.

2. What resources did you use to overcome these challenges and to pursue these goals?

Practicing conversations in class, learning and memorizing vocabulary on Duolingo.

3. What were the learning outcomes for you?

Through the in-class conversations, I was able to learn and improve my pronunciation of the basic conversational phrases. Through Duolingo, I was able to memorize a few vocabulary words and form simple sentences.

4. What do you feel you are still uncertain about or would you like to improve upon?

One of the biggest challenges for me so far has been mastering the Irish orthography. On Duolingo, I often have to skip problems where I hear a word or phrase and am asked to type it because I do not know how it would be spelled. Likewise, I often cannot figure out how a word that I see written would be pronounced. As for speaking in class, I am not quite yet able to have a conversation without looking at the paper to remind myself which phrase to respond with.

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

I have been trying to memorize the spelling rules so that I can sound out new words on Duolingo and work out how spoken words might be spelled. Repeated practice in class has helped me respond faster in conversations.

6. 6. What are your impressions of the course so far? (What do you like/dislike? What problems are you having? etc...) having? etc...)

My impression of the course so far is generally positive. The class sessions are structured well, with a good balance between time practicing and time learning new information. Practicing on Duolingo everyday has helped me become accustomed to the language quickly and is especially helpful because it keeps Irish on my mind between class periods, so I always feel ready when going to class.

Name: Learner 8 Shapiro

Reflective sheet date: September 14, 2016

1. Please state the language challenges and goals you had this period:

I'm still struggling with pronunciation and immediate recall, but I understand it when I hear it now. My goal is to be able to say the words.

2. What resources did you use to overcome these challenges and to pursue these goals?

I used the alphabet chart to try to get the pronunciation based on spelling correct, and stared at the handout for a while.

3. What were the learning outcomes for you?

I can say hello successfully (I think), and I can recognize other phrases when they're spoken to me.

4. What do you feel you are still uncertain about or would you like to improve upon?

My recollection speed is super slow and I don't trust my pronunciation.

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

Listening to the audio files online, duolingo, in class work.

6. 6. What are your impressions of the course so far? (What do you like/dislike? What problems are you having? etc...) having? etc...)

My biggest struggle is pronunciation, which is really what's hindering my ability to remember stuff. The class is great in terms of speed and subject matter I just need to get the pronunciation down so I can remember the words.

Reflective sheets for week 2

Name: Learner 2

Reflective sheet date: Week 2 - 9/25/16

1. Please state the language challenges and goals you had this period:

During week two, I had to miss all of 9/20 and part of the 9/23 class because of work. I missed a good bit of the pronunciations for the family and personal numbers documents. I felt a little behind on Friday because of this. I also didn't have a lot of time this week to study or review much

Goal wise, I want to get caught up with everyone and need to focus on the family terms. Another goal is to get over the fact that I'm talking in another language to someone. It makes me really nervous when I don't know what to say or if I mess something up. Then everything gets thrown off. So it makes it a little difficult to talk to other people in the class since I was so unsure of words and phrases on Friday. I need to not let the nerves get to me.

2. What resources did you use to overcome these challenges and to pursue these goals?

This weekend, I spent some time going to the different websites that you put up on the speakapps website. Focloir.ie seems to be my favorite and I used it when I made my soundcloud recording. Abair.ie is also awesome and helped with the pronunciation of the phrases.

I did download the AnkiDroid app but haven't had a chance to use it much. I really like having the different resources on my phone. I don't have an excuse to not practice. I took the bus to work the other day and used Duolingo the entire 25min ride, it was great!

3. What were the learning outcomes for you?

This week focused on likes, dislikes and our families. This is all building on last week when we discussed our backgrounds and where we are from. I feel more confident speaking about my background and where I am from. But I also listened to the pronunciations many, many times.

Doing the listening exercises from the book, is really helping me to pick the familiar words out of sentence and solving the words I don't know with context clues.

4. What do you feel you are still uncertain about or would you like to improve upon?

I mentioned before that I missed almost all of the class time this week. I really get a lot out of the class time so it has been a struggle this week trying to learn these words and phrases on my own.

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

Since I stayed in Pittsburgh this weekend, it gave me a chance to really go over the personal numbers and family terms. I'm hoping to be more prepared for next week.

6. 6. What are your impressions of the course so far? (What do you like/dislike? What problems are you having? etc...) having? etc...)

Is maith liom e! Honestly, I'm surprised at home much I retain from the Duolingo I started working on a few weeks ago. The classes are a lot of fun and the songs we listened to in class on Friday were very interesting! The timing is not ideal for me since I'm so busy with work and grad school. I just wish I had more time to devote to it all!

Name: Learner 6

Reflective sheet date: September 22, 2016

1. Please state the language challenges and goals you had this period:

My challenges are more related to the sounds: listen and speak.

2. What resources did you use to overcome these challenges and to pursue these goals?

I am starting to try to listen more in Irish by watching TV or listen to musics.

3. What were the learning outcomes for you?

In two weeks, I've observed improvements. Now, I know basic phrases, a bunch of words, that I still need to look at the sheet before saying them, but I can observe that I start to get used to them.

4. What do you feel you are still uncertain about or would you like to improve upon?

I would like to improve and understand more about the lenition and eclipses. They are things that I still could not get very well.

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

I am still looking for actions to outcome this.

6. 6. What are your impressions of the course so far? (What do you like/dislike? What problems are you having? etc...) having? etc...)

It has been a challenge, particularly with the family members words. But I am enjoying the experience.

Name: Learner 8

Reflective sheet date: Sept. 23, 2016

1. Please state the language challenges and goals you had this period:

I'm still having trouble working out pronunciation. My memory of phrases is improving but getting the words to fit in my mouth correctly is a bit of a struggle.

2. What resources did you use to overcome these challenges and to pursue these goals?

I've been listening to the things that are posted and asking about pronunciation a lot, as well as trying to mouth the words as we discuss them to get some feeling of their placement.

3. What were the learning outcomes for you?

I can have a remedial (like 2 year old style) conversation about where I'm from, with a little help from the handout.

4. What do you feel you are still uncertain about or would you like to improve upon?

I really just want to get pronunciation, I want to be able to say the words better.

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

Asking for the word to be repeated more often and listening to the materials online.

6. 6. What are your impressions of the course so far? (What do you like/dislike? What problems are you having? etc...) having? etc...)

I really like the course, I feel like we're moving at a reasonable speed. I think the biggest problems I'm having are ones that I just need to practice on my own.

Name:.....Learner 1.....

Reflective sheet date:.....9/28/16.....

1. Please state the language challenges and goals you had this period:

Well, last week was hard as I was traveling and had no internet access.

2. What resources did you use to overcome these challenges and to pursue these goals?

I did over 100 points in Duolingo to try and catch up when I got back. But it's hard to cram everything in and still remember.

3. What were the learning outcomes for you?

I did learn and pass the DuoLingo work – but I'm not sure how much I remember ;)

4. What do you feel you are still uncertain about or would you like to improve upon?

I need more work with uruh and knowing when the sounds change.

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

I'll be working more with the DuoLingo course and re-reading my paper course materials.

6. 6. What are your impressions of the course so far? (What do you like/dislike? What problems are you having? etc...) having? etc...)

Oisín is a terrific teacher. His enthusiasm for the Irish language is contagious and his class is really enjoyable. I also appreciate that he explains the literal translations so that I can get a sense of how the language is structured. (ie. Something comes "at" you vs. I have it.)

Name:.....Learner 9.....

Reflective sheet date:....9/21/16.....

1. Please state the language challenges and goals you had this period:

Pronunciation, removing intonation, and remembering word order in our questions, then applying word order rules to individual replies.

2. What resources did you use to overcome these challenges and to pursue these goals?

I looked online for fuller explanations of lenition and eclipses. The eclipses came a little easier since I was able to pair voiced/voiceless consonants for eclipses. But I'm still not sure when I should implement eclipses.

3. What were the learning outcomes for you?

To keep up. The semester got busier so I wasn't able to do the work but two or three times in a week.

4. What do you feel you are still uncertain about or would you like to improve upon?

The phonological rules are driving me crazy. I dislike mispronouncing words so I do what I can to approximate and get as close as possible to native-like pronunciation.

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

I've been trying to understand the lenition and eclipses, as noted above.

6. 6. What are your impressions of the course so far? (What do you like/dislike? What problems are you having? etc...) having? etc...)

The tools are useful. I do wish that the explanations in each duolingo set of exercises came with pronunciation, like in the pronoun, verb conjugation charts.

Name: Learner 10

Reflective sheet date: 9/21/16

1. Please state the language challenges and goals you had this period:

I'm still struggling with some of the basic phrases and not understanding the literal meaning of words. I'm working to get more comfortable with quicker and more fluid responses.

2. What resources did you use to overcome these challenges and to pursue these goals?

I tried to have more Irish conversations with my wife.

3. What were the learning outcomes for you?

Slightly more fluid conversations.

4. What do you feel you are still uncertain about or would you like to improve upon?

I'm still uncertain about questions and use of the word "go". I haven't figured out when to use direct objects or not. Ta and bí are still confusing.

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

I continue to listen to podcasts and language apps. Mango was recently recommended and I have starting.

6. 6. What are your impressions of the course so far? (What do you like/dislike? What problems are you having? etc...) having? etc...)

Instructor is enthusiastic. I'm still not seeing a good connection between Duolingo and the in-class learning.

Name: Learner 7

Reflective sheet date: September 21, 2016

1. Please state the language challenges and goals you had this period:

My goals were to become comfortable asking and answering questions about where I live, what I do, and what I like.

2. What resources did you use to overcome these challenges and to pursue these goals?

I practiced in class and used Anki to help memorize the phrases.

3. What were the learning outcomes for you?

I have generally been able to use these phrases and remember them quickly. However, sometimes I can only remember the last few words of the phrase and not the entire phrase. I think I am learning certain words faster than the rules behind formulating a question or response.

4. What do you feel you are still uncertain about or would you like to improve upon?

Pronouncing new words is still a challenge.

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

Conversations in class have been good for learning which phrases to use when, and how to pronounce them. Anki has helped with memorization.

6. 6. What are your impressions of the course so far? (What do you like/dislike? What problems are you having? etc...) having? etc...)

I like the way new words and phrases are taught in class. We are able to practice pronouncing everything and using words with context.

Name:...Learner 5.....

Reflective sheet date:...Sept 19.....

1. Please state the language challenges and goals you had this period:

challenges: knowing how to pronounce the words

goals: get some confidence with very basic conversation

2. What resources did you use to overcome these challenges and to pursue these goals?

The large amount of time spent during class speaking with each other has been very helpful in achieving the goal above. I have not really overcome the challenge above yet.

3. What were the learning outcomes for you?

Achieve a very basic conversational level.

4. What do you feel you are still uncertain about or would you like to improve upon?

Still uncertain about pronunciation from reading text. But I think that once I learn the words from speaking them I will recognize them in the text and that won't be a problem anymore so I don't really plan on focusing on the pronunciation directly right now.

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

Going to class, duolingo.

6. 6. What are your impressions of the course so far? (What do you like/dislike? What problems are you having? etc...) having? etc...)

Very good class because of how interactive it is.

Name: Learner 4

Reflective sheet date: 9/23

1. Please state the language challenges and goals you had this period:

Currently I am trying to get the various rules of sound changes with regards to grammar down. They tend to be explained all at once in the Duolingo course, and so it can take time to sort through them and understand how each one is applied.

2. What resources did you use to overcome these challenges and to pursue these goals?

So far I've been practicing on the Duolingo course, trying to get a better grasp on previous units before I move forward. I also try to find how the grammar is implemented in the main class sessions.

3. What were the learning outcomes for you?

I have been making progress, and though I think a lot of things are still uncertain currently I believe I will be more confident by the end.

4. What do you feel you are still uncertain about or would you like to improve upon?

Rules regarding lenition and eclipsis. The rules themselves are explained fine, but having more practice would be useful since the Duolingo course only spends a small amount of time on each specifically.

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

I have still been working by myself so far, using Duolingo and Anki when I have time. The Anki deck in particular is very useful, and is something I have used for other languages.

6.6. What are your impressions of the course so far? (What do you like/dislike? What problems are you having? etc...)

having? etc...)

I think the course is moving at a good pace and has been covering useful topics. I'm not having any

particular problems at the moment.

Reflective sheets for week 3

Name:.....Learner 9.....

Reflective sheet date:....9/28/16.....

1. Please state the language challenges and goals you had this period:

I'm feeling better about how and why of lenition and eclipses but I'm not sure on the pronunciations. So I've made myself some charts for the combinations of vowels and consonants and looked up 'tricks' for pronunciation. The questions of word order as solidifying and I'm grateful that present tense conjugations are rather straightforward. I'm also struggling with words that are missing in my replies bc I thought I knew what was what (that I understood what I needed to do and in fact, did not).

2. What resources did you use to overcome these challenges and to pursue these goals?

Online guides/explanations as well as Oppia.

3. What were the learning outcomes for you?

To keep improving. I'm happy that reading and writing are possible at this point even though they aren't a focus of the course.

4. What do you feel you are still uncertain about or would you like to improve upon?

Listening comprehension. Once we add native speakers to the mix, it will be hard to hear individual words, although we should be pretty good with the chunks (name, city, etc).

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

I prefer reading a passage and then listening to it, because then I can 'see' the words as I hear them, instead of having to sort through ALL of the possibilities and pick the one word the sound belongs to.

6. What are your impressions of the course so far? (What do you like/dislike? What problems are you having? etc...) having? etc...)

The material is getting more in-depth but that's to be expected. I have a feeling that verb pronunciations are going to be challenging this coming week especially as we explain more about our lives and our families.

Duolingo sentences, really???? ☺

Name: Learner 7

Reflective sheet date: September 28, 2016

1. Please state the language challenges and goals you had this period:

Be able to speak clearly about my household, improve my general pronunciation and fluency.

2. What resources did you use to overcome these challenges and to pursue these goals?

I used Anki to memorize the household vocabulary, and Duolingo to practice general skills.

3. What were the learning outcomes for you?

I was able to become comfortable using the new vocabulary and talking about my family.

4. What do you feel you are still uncertain about or would you like to improve upon?

Certain grammatical constructs are challenging. It often takes me a while to remember which words I need to change in order to conjugate certain phrases I already know, for example conjugating “is maith leom X” to the third person. Pronouncing new words is still difficult.

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

Duolingo has helped a bit with forming grammatically correct sentences. Writing the recorded passage about my household was good practice with sentence formation. This also was good practice with pronunciation. When I needed to use a new word for my recording, I looked up the pronunciation on Abair.

6. 6. What are your impressions of the course so far? (What do you like/dislike? What problems are you having? etc...) having? etc...)

The course is going great! I am learning a lot and I feel like I am improving my skills.

Name: Learner 10

Reflective sheet date: 9/29/16

1. Please state the language challenges and goals you had this period:

I'm still working to get comfortable interacting in class. I sweat and get nervous as soon as we have to stand and talk with each other. I struggle to understand the sentence structure and expressions.

2. What resources did you use to overcome these challenges and to pursue these goals?

I continue to listen to various apps and other Irish learning programs. I fell behind in Duolingo but seem to be caught up now

3. What were the learning outcomes for you?

To work to express myself and understand others.

4. What do you feel you are still uncertain about or would you like to improve upon?

I'm not comfortable not knowing the words and expressions and am still training my brain to memorize and find mnemonics.

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

I've stopped using the mobile version of Duolingo. The explanations in the desktop version are helpful. I use Google's Irish to English translation. I found helpful lists of prepositional pronouns.

6. 6. What are your impressions of the course so far? (What do you like/dislike? What problems are you having? etc...) having? etc...)

I like the instructor's enthusiasm. Although it may not help to continue to remind students that "Irish is easy" as those who are struggling may question their learning abilities since they are having difficulty with something that should be easy.

Regular Duolingo assignments are helpful.

Name: Learner 4

Reflective sheet date: 9/30

1. Please state the language challenges and goals you had this period:

Understanding the grammar more extensively and continuing to be mindful of eclipsis and lenition is what I seem to have focused on this week. Since we were beginning to use more complex

sentences, understanding how multiple clauses can fit together and how ideas can be expressed in multiple ways was what me and other students seemed to have been doing.

2. What resources did you use to overcome these challenges and to pursue these goals?

One website I tend to use for quick information is Wiktionary. For Irish, it can quickly list the forms and when things become lenited or eclipsed, so it is useful when I'm not sure about something. Otherwise my resources were the same as previous weeks.

3. What were the learning outcomes for you?

I feel that I have been starting to become more comfortable in the language to a certain extent, which was helped a lot by reading while listening. Hearing authentic, relatively complex speech while being able to follow along has always been an effective learning strategy for me.

4. What do you feel you are still uncertain about or would you like to improve upon?

I want to solidify my understanding of the lexicon and grammar up to this point, in order to make learning about the language further more easy.

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

I have been trying to use the Duolingo course more frequently, which has been encouraged by having specific unit goals. In addition, I feel inspired to use it more when looking at the course leaderboards and understanding how much I am using it compared to everyone else.

6. What are your impressions of the course so far? (What do you like/dislike? What problems are you having? etc...)
having? etc...)

The course has been moving at a good enough pace for me. I am hoping we can cover a good variety of subjects before it ends.

Name: Learner 8

Reflective sheet date: 10/3/16

1. Please state the language challenges and goals you had this period:

It's getting a little easier! I'm still having some pronunciation trouble and word recollection trouble but I just need to practice more.

Goals are still just be able to say words right.

2. What resources did you use to overcome these challenges and to pursue these goals?

Spoke the words more, tried to use full sentence answers, spoke Irish with other people outside of just the classroom (but only a little).

3. What were the learning outcomes for you?

it's starting to become a little easier to recall things, and its especially become easier to understand things.

4. What do you feel you are still uncertain about or would you like to improve upon?

Pronunciation and word recollection

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

Asking for the words to be repeated often.

6. 6. What are your impressions of the course so far? (What do you like/dislike? What problems are you having? etc...) having? etc...)

it's great, I wish i had a better handle on the language but i think I'm getting there.

Name: Learner 6

Reflective sheet date: October 2, 2016

1. Please state the language challenges and goals you had this period:

My challenges during the week 2 were related to the family members names and pronunciation of them.

2. What resources did you use to overcome these challenges and to pursue these goals?

I have used more the Abair page to listen the words pronunciation in order to try to get used to the sound of the family members names.

3. What were the learning outcomes for you?

In three weeks, I've observed improvements. Now, I can understand basic words and phrases from TV programs and radio. I started to be more independent of the sheets to say basic sentences.

4. What do you feel you are still uncertain about or would you like to improve upon?

Despite re-reading explanations in Duolingo and Internet, I still would like to improve and put in practice easily the lenition and eclipses. And I am usually uncertain about how to say some words related to the family members..

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

I have studied by myself, sharing the findings about Irish language with a friend and by the support of the Internet.

6. 6. What are your impressions of the course so far? (What do you like/dislike? What problems are you having? etc...) having? etc...)

It has been a challenge, particularly with the family members words. But I am enjoying the experience and it seems now that for the regular verbs conjugation I will not have too much difficulties.

Name: Learner 2

Reflective sheet date:- 10/2/16

1. Please state the language challenges and goals you had this period:

Class on Tuesday we continued to talk about our families and what they like. I'm starting to understand the sentence structure a little more. It was definitely strange at first but again it's all starting to come together.

I did a soundcloud recording on my family over the weekend. A lot of challenging new words and trying to pronounce them. My dad is a production team manager at a manufacturing plant so instead of trying to pronounce machining manager, I just went with manager.

I had to miss class on Friday because of a retirement party but I ended up missing that because of a grant that was due. I reviewed the Oppia that we were to watch on Friday.

2. What resources did you use to overcome these challenges and to pursue these goals?

The soundcloud recording I did over the weekend helped a lot with learning the sentence structure. I first wrote down everything I was planning on saying. Then I did my best to translate it to Irish, while trying to put the fada's in the right places. I used the Focllir.ie website a lot and the Abair.ie for the words that didn't have a little mega phone beside them.

3. What were the learning outcomes for you?

The sentence structure is on the up-and-up! I'm feeling more comfortable with the vocabulary I'm saying. I'm not sure if all the speaking practice is training my tongue and mouth to form the words and sounds, or if I'm just getting used to hearing the way that I say it and think it's correct.

I think I'm starting to get the hang of the verb conjugations. Or at least notice the pattern of the conjugations on Duolingo.

4. What do you feel you are still uncertain about or would you like to improve upon?

I missed Friday but I did complete the present tense unit on Duolingo. I hope I remember the section and will need to review it before week four starts on Tuesday.

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

The soundcloud recording really helped. I listened to the recording you uploaded a couple of times for the pronunciation practice and then wrote and recorded my own. I even listened back to my own recording and made my sister listen to it.

I had my Duolingo streak up to 12 days this week, but the weekend caught up to me. I like that it notifies me to keep practicing.

6. 6. What are your impressions of the course so far? (What do you like/dislike? What problems are you having? etc...) having? etc...)

I'm sorry for missing so much class. I'm realizing it is hard for me to get there by 4:30. Overall everything is going well. As I've said in previous weeks, I wish I had more time to devote to this. I need to learn to relax and trust what I'm saying. I tend to over think what word comes next which just throws me off.

Reflective sheets for week 4

Name: Learner 8 Shapiro

Reflective sheet date: 10/10/16

1. Please state the language challenges and goals you had this period:

I don't know how to say the words. I'm getting better, but it's a constant struggle.

2. What resources did you use to overcome these challenges and to pursue these goals?

Abair.ie helps, but also I just ask for words to be repeated often.

3. What were the learning outcomes for you?

I'm starting to build a mental lexicon, which is great. I know some words off the top of my head so things are getting slightly easier.

4. What do you feel you are still uncertain about or would you like to improve upon?

Pronunciation and word order in sentences.

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

I did like 10 duolingo sections in one day and it actually helped more than I expected it to.

6. 6. What are your impressions of the course so far? (What do you like/dislike? What problems are you having? etc...) having? etc...)

I like how much we are encouraged to talk to each other. I struggle through it but it is super helpful.

Name:.....Learner 9.....

Reflective sheet date:....10/5/16.....

1. Please state the language challenges and goals you had this period:

The focus of the course is supposed to be speaking and listening, but when we do the Duolingo there is translation and reading that we have to be able to do in order to succeed. I think that this 'mixed message' between the online and class work is what caused some of the questions that were asked in class that went beyond speaking and listening.

2. What resources did you use to overcome these challenges and to pursue these goals?

The usual, I haven't used anything new.

3. What were the learning outcomes for you?

To keep up! And getting the vocabulary out of my mouth. Pronunciation.

4. What do you feel you are still uncertain about or would you like to improve upon?

Pronunciation and the spelling changes that happen with lenition and eclipses.

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

Learner 9 and I talk some about things we've discovered or tricks to remember and use vocabulary, pronunciation, etc. Mostly though I worked alone.

6. 6. What are your impressions of the course so far? (What do you like/dislike? What problems are you having? etc...) having? etc...)

I think the biggest confusion is the class focus on speaking and listening, but the translation and reading comprehension focus (as well as listening) in Duolingo. We have questions related to what we find in Duolingo that aren't related to what we do in class (except for thematic vocabulary which also happen to be verbs, for example), which causes me personally to want to ask questions about Duolingo.

Name:.....Learner 9.....

Reflective sheet date:....10/14/16.....

1. Please state the language challenges and goals you had this period:

Having missed last Friday's class, Tuesday was a bear. It's amazing how much can be done in one hour and consequently, how lost one can be during the next class. It was difficult to keep up in class given the new vocabulary, even from Tuesday to Friday this week.

2. What resources did you use to overcome these challenges and to pursue these goals?

Nothing new, I used what was provided to us from the instructor and Duolingo.

3. What were the learning outcomes for you?

To understand better the pronunciation rules and to become more familiar with the prepositional pronouns that we started to use more and more.

4. What do you feel you are still uncertain about or would you like to improve upon?

I gave up trying to create an accent and focused on pronunciation, making rules for myself and using IPA to continue to remind myself of pronunciations. I also use English or French words to remind myself of the sounds that Irish spellings makes.

5. What actions did you take in order to achieve these outcomes, by yourself or with others?

See above. Lots of notes on pronunciation, and making charts of the subject, object and prepositional pronouns so I can start mentally putting words into categories and remember what 'goes with what'.

6. 6. What are your impressions of the course so far? (What do you like/dislike? What problems are you having? etc...) having? etc...)

So, in this my last journal entry...

1. I am surprised at how much I learned

2. I do wonder how much more confident I might be if I had had more direct instruction in grammar, the use of the small words (bheigh, ar, in/i, ag), for example.

3. Lenition and eclipsing will never be my friends.

4. Pronunciation in Irish will never be my friend.

5. I can see continuing to learn Irish but I'm not sure how I will continue, whether with Duolingo and/or in an Irish course. The time commitment for these few weeks was not large at all and as the semester went on, I found it more and more difficult to make sure that I did the work. I never did spread it out over the week (what a bad student!).

In any case, thank you for an interesting experience and I will try to prevent attrition!

Appendix Q Researcher observation sheets

Week one

Observation sheet: Class one, week one

Date and time of Observation: 09/09/16 4:30pm

Location of observation: Baker Hall 135c

Length of observation:

Number of students present: 9

Object of activity

The object of this face-to-face class was to review the content contained within the introductory section of the online classroom on SpeakApps. Additionally, another object of this class was to get the students talking in Irish to interact with each other using the basic phrases posted on SpeakApps. A full list of the topics (objectives) of this class that were covered sequentially are as follows:

- Explanation of Irish orthography
- Irish sounds at the beginning of Gaeilge gan Stró (GGS)
- Review basic facts surrounding the Irish language contained in the Oppia exploration *Introduction to Irish for beginners*
- Review of basic phrases
- Brief explanation of the emphatic form in Irish
- Have the class interact with one another
- Review audio of Unit one in GGS

Lastly, the final aim of this class was to introduce the class to the influence of the Irish language on the English language especially the American brand of English. Such as the relationship between the expression So long = slán.

Tools used

Teacher: paper printouts of the basic phrases from SpeakApps classroom, portable speaker, Gaeilge gan stró recordings CD 1 (tracks 2, 3, 4, 5, 8), laptop, Blackboard

Student: Computers (laptops and tablets), printouts, notebooks and regular stationary

Actions observed within the activity

Prior to class: The SpeakApps learner analytics showed that all of the students present for class that day had viewed the oppia exploration, the Irish basic phrases and the audio for those phrases. Additionally the majority of the class had also signed up for the Duolingo classroom and had begun to cover the lesson specified in the orientation meeting.

At the beginning of the class I asked if the students had reviewed the introduction to Irish Oppia exploration posted on the SpeakApps classroom. I then began to ask them questions related to the Irish language, its history, where it is spoken, the Irish name of the country and some simple questions about its syntax. The students were able to successfully answer my questions. After 10 minutes of these questions we moved on to an explanation of Irish orthography and its phonology.

I asked the students about what they thought about the Irish language. One of the students (leaner 9) stated she hated it as the writing system did not line up with what she heard. I proceeded to show them a copy of the Irish seanchló. I explained how the Irish alphabet had changed and that historically there was no 'h' in the language. I informed them that they should treat the h as an accent instead of a letter in and of itself as it replaced the 'builte' and caused lenition. I read the text that I had chosen to them in order that they hear the language in full flow.

Moving on from this we looked at the pronunciation of the consonants and vowels in Irish using the introductory material at the beginning of *Gaeilge gan Stró*. I made sure to draw attention to the effect that the lenition and the eclipse had on the beginning of consonants. I then went through the pronunciation of the words on pages viii and ix. I encouraged the class to repeat the words after me. Depending on the class's accuracy with the pronunciation I repeated certain words several times until I was satisfied they could make the sound or a close approximation of it. I also drew attention to the pronunciation of the vowels and the effect that the acute accent had on the sound of the vowels. During this portion of the class I observed that every person present made notes next to the words on the handout to assist them in the pronunciation. The notes varied from phonetic spelling of the Irish sounds from an English perspective to the use of IPA to make notes of the sounds. At the end of this portion of the class I asked the students if they had any questions regarding pronunciation. Several stated that they thought that the pronunciation was very difficult and that the language seems very confusing. Several asked about the combination of vowels and consonants and their corresponding sounds such as 'acht', 'amh' and the changes that occurred with a lenited f. I addressed these questions but stressed that they should not be overly concerned at this point in their study with over focusing on the pronunciation points of Irish.

Leading on from the discussion on pronunciation I directed students' attention to the *Basic Irish Phrases Handout*. All of the students had accessed these before class though few of the students had actually brought a physical copy of the phrases with them. I handed out a print out with this phrases to those who required it. I then proceeded to go through the pronunciation of the words

and phrases on the handout. I observed students writing the phonetic and IPA pronunciation next to the words and phrases again. I also made use of the recordings in unit one of *Gaeilge gan Stró* (GGS) to add to the students aural exposure to the language. Additionally this helped to illustrate to the students the different dialects of Irish. The students were asked to repeat the words and phrases after I had pronounced them. I drilled each phrase and word at least twice with the students. More if the class presented difficulty with pronunciation.

Once this section of the class had been completed I instructed the students to stand up as Gaeilge, take a deep breath and to attempt to talk to everyone else in the class using the basic phrase. Many of the students seemed amused by this prospect but I pressed them just to attempt to talk to one another using the language. The handouts were firmly clutched in the hands of the students as they proceeded to move about the class to talk to one another. Groups of two, three and four people formed sporadically throughout this portion of the class. Students moved from group to group and waited on new talking partners with which to practice the basic phrases. Often after the students had gone through the phrases they would descend into a discussion about the language's structure, grammar and phonology. I encouraged students to move about and to avoid these discussions at this moment in time. I also participated in this exercise and spoke to each individual in the classroom. Students often asked me questions with regard to pronunciation and some students pushed me for direct translations of the sentences. The handout for all of the students was an important support and due to this the students rarely made eye contact during this speaking exercise. Once every student had had the opportunity to talk to each classmate I asked the students to sit down as Gaeilge again. I then played track 8 on CD1 GGS three times.

At the conclusion of the class I informed the students that there would be a new section created on the SpeakApps classroom that would prepare them for the next class. I directed those students who had not registered for the Duolingo classroom to do so and to work towards completing the basics 1, 2 and phrases. I also informed the students that audio of the basic phrases would be uploaded in the introductory section in order to help them with their pronunciations.

Division of Labour

Student division of labour prior to class: Review the materials on the SpeakApps platform. Register for the course and the Duolingo classroom. Review the basic phrases

Teacher:

- Ensure the students understand the basic facts surrounding the Irish language.
- Explain Irish orthography and why the sound system is the way it is.
- Cover the basic phrases and pronunciation. Drill exercises.
- Manage the classroom speaking exercises.

- Ensure that students had ample time to practice the basic phrases
- Play audio material for the class and elicit responses based on structures points of interest.

Students:

- Answer questions
- Participate in pronunciation exercises
- Participate in speaking exercises
- Interact with other students

After class:

- Continue to study the material provided on the SpeakApps classroom
- Register for the Duolingo classroom
- Completed the first three lessons on Duolingo and explore the platform themselves
- Review the audio of the basic phrases

Rules

Prior to the class: Review the specified materials ahead of class.

In class students were required to participate in exercises and classroom discussion to the best of their ability. Additionally, students were required to interact with one another following the direction of the teacher.

After class: Review material covered in class and prepare for coming f2f class by interacting with prescribed materials on SpeakApps.

Observed Difficulties/Problems

Based on my observation of this face to face class the main difficulties and problems that I observed related to: pronunciation, difficulty reading the basic phrases (Irish orthography), and retention of vocabulary, understanding the Teachers accent and following the teachers' directions. I will expand on each of these points now.

The biggest problem that I saw that students experienced during this class related to the pronunciation of the Irish words and phrases. Students seemed quite confused regarding how a

word was spelled and how it was said. This was made know to me by a couple of the more vocal students in the class.

The students made a lot of use of the handouts that were provided. This contributed to the students interacting with one another but students were not able to retain the phrases and the vocabulary off hand. This was possibly impacted by the fact the audio of these phrases was uploaded after the class. This was in part due to the fact the Langblog platform was not functioning properly on my Apple laptop.

Some of the students were hesitant to speak the language for fear of making a pronunciation error. This stems from a self-consciousness among certain students while others simply jumped into the speaking exercises.

There was also some issue among the students in understand my Irish accent. The students were certainly amused by it, though I am concerned that the class did not fully grasp my instructions regarding the speaking exercises.

Prior to the class there was a lack of interaction with Duolingo. Not all of the students had registered with the Duolingo classroom or began working with the app to cover the material they were directed to in the SpeakApps introduction section.

Outcomes

Based on my observations of this first class I conclude that the students have a better understanding of the basic facts surrounding the Irish language and its history. Furthermore, they are now also aware of some of the basic facts of Irish's current status on the Island of Ireland today and indeed in the European Union.

Regarding the students' knowledge and skill in the language itself, after this class the students have a better grasp of Irish orthography and the basic rules regarding pronunciation of the language. The majority of the class are still unsure of certain sounds in the language and are intimidated by the way it sounds.

Lastly, by the end of the class the students had a grasp of how to use and pronounce the basic phrases. I anticipate that this will improve as the course progresses. The students also are aware that there are different dialects in the Irish language as well as the emphatic form. As well as this,

the students are aware of the morphological related to lenition and the eclipse in Irish.

Observation sheet: Class two, week one

Date and time of Observation: 13/09/16 4:30pm

Location of observation: Baker Hall 226b

Length of observation: one hour

Number of students present: 8,

Additional notes on subjects: One student has dropped out of the course due to other commitments

Object of activity

The object of this class was to go over the speaking exercises of the first class and to focus on the audio that builds on the basic phrases. Another object of the class was to cover the vocabulary and phrases laid out in the week one section of the SpeakApps classroom. The following topics (objects of activity) were covered in this class.

- Review the basic phrases from the first class
- Asking where someone is from (Cé as tú? Is as x mé, The copula Is as x mé. Is x mé)
- Irish placenames
- Talk about the student's background and where they are from
- Say where they live and ask the question in emphatic form
- Introduction to the eclipse and the rules pertaining to the preposition 'í'
- Expressing a like or dislike for something in preparation for the following
- The rule known as 'Caol le caol, leathan le leathan' (Slender with Slender, Broad with broad), the golden rule of Irish Orthography

Tools used

Teacher: paper printouts of the basic phrases from SpeakApps classroom, portable speaker, , laptop, Blackboard

Students: Computers (laptops and tablets), new handouts and handouts from previous class, GGS handout unit 2 notebooks and regular stationary,

Actions observed within the activity

Observations prior to class: 9 of the students that were registered for the class reviewed the preparatory material *Your Background and where you live*. Interestingly more students (10) accessed the audio for this topic than the word document. Some students also revisited the audio for the basic phrases. Only seven students managed to complete the Duolingo assignment to gain 100 XP. The remainder of the students managed to complete the assignment either 3 or up to 10 days later. The Oppia exploration, *conjugating Irish Verbs*, was only viewed by three students before the class. Lastly, I instructed the class to make use of the Tearn.ie and Focloir.ir to look up three words that were related to them in some way such as an interest of theirs or an area of study/work.

I began the class by addressing the issue that several students still had not signed up for the Duolingo classroom via SpeakApps or through the email link that I had sent out to the students. This was frustrating to me as it had been over a week since I had held the orientation session and there should not have been a delay at this point of the course. I highlighted to the class again the importance of registering with the Duolingo classroom as weekly assignments would be dependent on this technology.

Moving on from this 'technical housekeeping', I began the class in earnest by asking the students for the Irish or the English from different exercises they were supposed to have covered on Duolingo. I also asked the students to translate the basic expressions and phrases that we had covered in the last class into English or Irish. It was evident that recall of the sentences was an issue. The students relied heavily on the use of the handouts from the last class. Another issue to crop up was one of pronunciation. This affected students' confidence that they were very reluctant to attempt to say some phrases without encouragement from the teacher.

Once we had reviewed the basic phrases from the previous class, I instructed the students to stand up and interact with one another using these phrases. The students proceeded to do this but would not move from partner to partner without prompting from me. The students read from the handouts mostly. Certain students did not have any issue with the recall of the sentences and it was clear that they had studied the material in their own time. I moved about the class interacting with the students using the target language. Once I had interacted with everyone in the classroom I singled to the class to retake their seats. Before moving on to the next section of the class I asked the students if they had any questions of particular issues with the basic phrases. Most of the questions the students put to me related to pronunciation. I reviewed the pronunciation of several words and sentences. Some students were also confused by the use of the emphatic forms of words. I explained the rule of adding 'sa' or 'se' to the end of the word depending on whether it was broad or slender. This rule had been explained in the Oppia exploration prescribed before the class though this was not widely accessed.

After the initial speaking exercise, I directed the students to take out the handouts for *Your background and where you live*. The entire class had brought the handout with them though only five of the class had actually reviewed the audio. I began the discussion surrounding this section by asking the class if there was anything that they were unsure of. We discussed some of the

pronunciation difficulties. Students seemed to dwell on the literal translations of the sentences and they also began to ask very specific questions relating to the grammatical elements of the sentence 'I like it'. I gave them the grammatical terminology but I also informed them that they should not over analyse every sentence as it would only confuse them.

Having covered the handout and the nationalities in the GGS handout on page 16 I asked the class to engage in speaking practice. I pointed out the pattern for generating people's nationalities from the names of countries. They were instructed to talk about where they were from and where they lived currently. I also instructed them to remember to keep moving once they had covered these sentences with their partner. This speaking exercise lasted roughly ten minutes, which was longer than I had anticipated and put me under pressure to cover the remainder of the topics on the handout. I engaged the students with the target language also.

Toward the end of the class I asked the students what words they had looked up as per my instructions via email. Some students were reluctant to say the words that they had looked up. This required me to look at the word that they had written down. Some made more of an attempt at pronouncing the word. I wrote all of the words up on the blackboard with a translation of the English next to them. Some of the words related to pastimes and others related to academic or professional vocabulary. Having completed this step I went around the class asking what the students liked or disliked again drawing their attention to the handout that had been posted on SpeakApps. I then engaged students with words that had been provided by other members of the class Unfortunately, there was not enough time to allow the students to engage with one another in an all class speaking exercise.

In the final portion of the class I set out the students' homework speaking assignment for the first week. I directed them to use the SoundCloud platform to record themselves using the target language that we had covered up until this point. I directed them to download the app via their smartphones or to create an account using their laptops. I went around the class once they had downloaded it to ensure that each student understood how the app functioned and how they were to make a recording. I instructed them to forward their recordings to me privately and to try and use as much of their Irish that they could.

Division of Labour

Student division of labour prior to class:

- Review the materials on the SpeakApps platform.
- Research vocabulary related to their areas of interest or study.
- Continue to engage with the Irish language content on Duolingo.

Teacher in class division of labour:

- Review of target language from the previous class
- Facilitate the speaking exercises
- Explanation of new target language
- Support students in exercises
- Elicit information from the students based on the material covered online
- Engage students one on one during speaking exercises
- Respond to areas of immediate need expressed by the student
- Cover the planned materials for that class

Student in class division of labour:

- Attend the class on time and with the prescribed materials
- Participate in speaking exercises
- Participate in listening exercises
- Participate in discussions surrounding the target language, the target culture and other elements of the course
- Seek to resolve issue that the students are having with the language
- Ask questions when clarification is required
- Assist other students when possible

After class: Review material covered in class and prepare for coming f2f class by interacting with prescribed materials on SpeakApps. Complete homework speaking assignment on SoundCloud and submit prior to the next face to face class. Complete the Duolingo assignment given on the 12/09/16 by the 16th.

Rules

Rules in the online space: interact and complete tasks that have been prescribed by the teacher on all platforms. This also includes reviewing and preparing materials for use in the face to face class.

In class students were required to participate in exercises and classroom discussion to the best of their ability. Additionally, students were required to interact with one another in a respectful manner. Lastly, students were required to follow the teacher's instructions and directions during the class.

Observed Difficulties/Problems

At the conclusion of this episode of activity a number of difficulties and problems have become apparent to me.

Online/technology difficulties or problems: The asynchronous interaction tool Langblog that I had chosen as a part of the course does not function. I have had to make use of another platform to enable the students to practice their speaking skill outside of the classroom. I have specified that students use SoundCloud in order to record their speaking assignments. This is not an ideal platform as some students are having problems with the SoundCloud App and website on their devices (IOS).

With regard to Duolingo, not all of the students are engaging with this platform. Indeed some students have not even registered with the Duolingo classroom which leaves me blind as to whether or not they have registered with the course. Additionally, students have voiced their frustration at the lack of audio available on the course as well as the strange sentences.

Students have not been interacting with all the material provided to them on the virtual learning environment (SpeakApps). This is affecting the pace at which we can progress with activities and exercises in class. I have had to revert to the traditional teacher role and explain things as one would in a non-blended classroom.

Difficulties with the language: The main difficulty that the students are having with the language so far related to the language's orthography and Irish pronunciation. Another issue that the students are having is being able to recall the target words and structures in a timely fashion. They are relying too heavily on the handouts. I am unsure as to whether or not they are studying the language in their own time sufficiently enough. It is clear that certain students are spending more time with the source material than others. Some students in the class are excelling greatly. These students are explaining the pronunciation of words to other classmates and assisting people in the construction of sentences.

Difficulties in the physical classroom: The original classroom that was scheduled for today was doubled booked. This caused us to lose some time at the beginning of the class as I had to locate another room. This also had the effect of preventing me from preparing fully for the class prior to its commencement (such as: laying out handouts, setting up the laptop, loading the listening material).

Attendance difficulties: One student has dropped out of the class due to other commitments. This is unfortunate but understandable. I have offered to allow her to continue to be registered for the course and to continue to have access to the materials. She stated via email that she would like this. Other students arrived late to the class today as they had prior commitments which ran over time. One student came at the end of the class in order to apologise that she had gotten caught in the

meeting. Students arriving late or not being present affects the speaking exercises that I plan for the class and also interrupt the class when they enter. There is little that I can do to resolve this issue.

Difficulties covering target material: I was unable to cover all of the content and engage the students with all of the exercises that I had planned today. This is unfortunate, though I was happy at the amount of progress that the students made in the end. I was unable to engage the students in any listening exercises and I had to cut some of the speaking exercises short. The final difficulty that I had this class was trying to motivate the students to move from partner to partner after completing a speaking task. This slows up the class.

Class on Friday will go over everything again and then we will play the recordings before we jump into the Topic; An teaghlach. This will now have to begin next Tuesday.

Observed Outcomes

By the end of this episode of activity I have observed that the students had made great progress regarding the understanding and using the target language covered in the course so far. The following outcomes were;

- Review of the basic phrases
- use of basic phrases with less reliance on the handouts
- introduction to new target language concerning talking about ones background and where they live
- improved pronunciation and understanding of Irish sounds
- improved understanding of the languages orthography
- reaffirming grammar rules covered this week, such of the use of the dependant and independent form of Bí in the presents tense, the emphatic forms of words
- Expanded vocabulary covered in the class and online due to self directed exploration of online Irish resources
- Dissemination of the metacognitive language learning strategies. Students were informed not to rely on literal translations

At the end of this first week the students are progress well. They do not seem to display any major difficulties with the language. They have been able to complete every speaking exercise in class. This has allowed them to practice of the sentences specified in the SpeakApps class room. Additionally, students are becoming more familiar with the GGS resources and the functioning of the online resources also. Time needs to be made up in the next class regarding listening exercises.

Week two

Observation sheet: Class one, week two

Date and time of Observation: 16/09/16 4:30pm

Location of observation: Baker Hall 226a

Length of observation: one hour

Number of students present: 10

Object of this episode of activity

The objects of this class were as follows:

- review the basic phrases from the first week
- practice talking about one's background and where they are from
- Expressing one's likes and dislikes
- Review vocabulary from the Duolingo assignments, new adjectives, names of countries and vocabulary relating to facilities in a place
- Listen and break down recordings related to section 2 from GGS

Tools used

Teacher: Laptop, GGS recordings, notes and blackboard

Student: Student handouts, GGS handouts, laptops and tablets(some students only), notebooks

Actions observed within the activity

Observations prior to class: Prior to this class students were requested to submit their first SoundCloud recording. The task was outlined in the last class on Tuesday. Only seven students made the recording in time for this class. The quality of the recording was satisfactory over all though there were students who did not understand precisely what they were required to do and one student was unable to get SoundCloud to work for her

Additionally, the class was required to complete the second Duolingo assignment by this class. The entire class managed to collect 100 xp on Duolingo though two of the students did not complete this assignment in time. Overall though the students have been very active on this platform outside of the class.

Lastly, Since the last class I had added additional resources to the SpeakApps moodle to assist students with their pronunciation. Unfortunately, no students had interacted with these resources prior to this class.

In class face to face observations:

I started the class by reminding those who had not submitted their SoundCloud recordings to do so as soon as they could. I reminded them that the SoundCloud recordings served as a great practice for the speaking exercises that we would participate in during the class and that the success of these exercises relied on the students' continuous efforts. Some students stated that they had an issue using the platform.

Once I had addressed this issue I directed students' attention to the blackboard where I had written some of the most commonly used adjectives. I instructed the students to make use of this when I asked them the question 'Conas atá tú?'. I drilled the pronunciation of the new adjectives with the students and I also provided the students with their meanings in English. I observed the students making notes of this new vocabulary. I went around the class asking in Irish how people were. Before I began this exercise I instructed the students to try and use different adjectives than the people that came before them. Once I had completed this step I directed the students to ask the people on the left and their right how they were.

Moving on from this I pulled up the Class's VLC on the Duolingo platform in order to view the vocabulary that the entire was familiar with. I asked in Irish the following questions inserting the English or the Irish word were applicable: Cad é an Ghaeilge ar x (What is the Irish for X?) or Cad is brí le X? (What does X mean?). This portion of the class proved to be enjoyable to the students. It further revealed more pronunciation issues that the students had with certain sounds in Irish. This also proved to be an effective Segway into an exercise using the structure 'Cad is maith leat?' (What do you like?). I went around the class asking each student individually what they liked. Once I had done this several times I changed the question to 'An maith leat x? (Do you like x?). Using the noun that the previous student had used I asked the following student if they like X or not. Depending on their gender I changed the preposition pronoun to express the like in the third person singular. I wrote these structures on the board in order to assist the class with this task. I also included a list of the prepositional pronouns for 'Le'. I drilled the pronunciation of this new vocabulary with the students. Several students inserted the subject pronoun into the structure. I informed them that this was incorrect and unnecessary. At this point several students asked me to define the subject

and object pronouns. One student asked how to say that she hated something which I assisted her with.

Moving on from this exercise I directed the students to take out their handouts while I set up the following tracks from GGS: 28, 40 and 44. I played track 28 twice. I asked the students not to look at the script on the handout for the first play through. After the first play through I asked the students questions about the speakers to determine if they understood. The students translated what they heard. Once this had been completed I played track 28 again with the students looking at the script. Following this I played the other two tracks three times. Firstly without the script in front of the students then a second time without the script where I played each sentence and passed the track. During the second recording I asked the students to translate what they heard and to tell me what the speakers were talking about. During the third play through students were asked to read the script while listening to the track and to make notes about the pronunciation of the target language. Students asked about the vocabulary surrounding facilities in the speakers' locality. I pointed out patterns concerning these words such as the ending 'lann' (e.g. leabharlann, iarsmalann). I also directed their attention to page 18 of the handout.

In the final part of the class I instructed the students to engage with one another using all of the phrases that they had learned. During this exercise I interacted with the students one on one in order to offer feedback on their pronunciation and to assist individually with any issue they were having with the language. I wrote the sentences which were causing problems to the students up on the blackboard. At the conclusion of this exercise we discussed the problems that the students were having. I was asked clarifying questions on pronunciation of the phrases, the use of the *urú* and the emphatic form of the subject pronouns. Students were less reliant on the handouts during this speaking exercise though a small number who had not completed the SoundCloud assignment had more problems/challenges with this exercise than others.

At the conclusion of the class I introduced the students to Anki intelligent flashcards. I highlighted the functionality of the application and its availability across a variety of platforms. Not all the students were able to download the app to their mobile devices as they had iPhones and the cost of the app on this platform is prohibitive. I instructed the students as to the creation of Decks and how they should be laid out. I informed them that they would receive decks with audio files attached to help them with their pronunciation.

At the very end of the class I reminded the students that I had added additional resources on SpeakApps to assist them with pronunciation and I highlighted the usefulness of *abair.ie* and *fuaimeanna.ie*. Lastly, I informed the students of the next class's topic and the next Duolingo assignment (collecting a further 100 xp). After the class I assisted students with questions relating to the new app Anki and SoundCloud.

Division of Labour

Student division of labour prior to class:

- Review the materials on the SpeakApps platform.
- Research vocabulary related to their areas of interest or study.
- Continue to engage with the Irish language content on Duolingo.

Teacher in class division of labour:

- Review of target language from the previous class
- Facilitate the speaking exercises
- Explanation of new target language
- Support students in exercises
- Elicit information from the students based on the material covered online
- Engage students one on one during speaking exercises
- Respond to areas of immediate need expressed by the student
- Cover the planned materials for that class
- Engage students with listening material

Student in class division of labour:

- Attend the class on time and with the prescribed materials
- Participate in speaking exercises
- Participate in listening exercises
- Participate in discussions surrounding the target language, the target culture and other elements of the course
- Seek to resolve issue that the students are having with the language
- Ask questions when clarification is required
- Assist other students when possible

After class: Review material covered in class and try to engage with the language independently through the various online resources. For those students who had not completed the Duolingo assignment or the SoundCloud recording I requested that they try and complete these tasks. Download the Anki flashcard decks before the next face to face class and begin work on the new Duolingo assignment.

Rules

Rules in the online space: interact and completed tasks that have been prescribed by the teacher on all platforms. This also includes reviewing and preparing materials for use in the face to face

class.

In class students were required to participate in exercises and classroom discussion to the best of their ability. Additionally, students were required to interact with one another in a respectful manner. Lastly, students were required to follow the teacher's instructions and directions during the class.

Observed Difficulties/Problems

At the conclusion of this episode of activity the following difficulties became apparent to me:

Online/technology difficulties or problems: The SoundCloud platform was not as intuitive to use for some students as others. This may have been to do with the type of devices that they were using or their competence with IT in general. This meant that some students had not submitted their recordings and therefore had more difficulty in the speaking exercises. Additionally, not all of the students completed the SoundCloud recording as they were instructed and simply read out the sentences from the handouts. Although this gave them an opportunity to practice their pronunciation it did not contribute to them personalising their language learning.

Not all of the students were able to complete the Duolingo assignment on time due to a number of reasons. These included a lack of available time to interact with the platform, misunderstanding of what was required of them and also not being registered with the platform or the Duolingo classroom still. I had to assist the students with these difficulties by guiding them through the registration process step by step. I also explained more clearly as to the weekly workings of the course (i.e. as it was stated at the beginning, students would be required to complete at least one Duolingo assignment a week). In order to avoid this difficulty reoccurring I will assign the Duolingo assignment at the earliest possible time and remind the students about this during the weekly email update.

On SpeakApps, some learning resources have not been accessed by the students at all. This is unfortunate as the posting of these resources was in direct response to the students request for additional support regarding Irish pronunciation.

Difficulties in the physical classroom: Pronunciation proved to be a persistent difficulty that the students had with the language. Also recall of the target language proved to be another difficulty that the students had. This was apparent from the speaking and listening exercises.

I am not convinced that the students are spending much time interacting with the physical handouts that are distributed in the class. A lack of understanding of some of the languages basic elements

such as the Copula, subject pronouns and sentences structure were obvious in about half of the class. In order to address this issue I discussed them with the students and added additional information on the board to help support the students during the speaking exercises.

Observed Outcomes

Despite the difficulties that I observed during this episode of activity I was very pleased with the progress of the students. By the end of this class the I was satisfied that the students were able to do the following:

- Interact with each other using the basic phrases
- Talk about ones background and where one lives
- Use additional adjectives to describe their current state and things in a basic fashion
- Improved pronunciation
- Improved understanding of basic Irish structures
- Ability to express that they like or dislike something
- Listen and understand the main points of native speakers talking about their background and where they live
- Use vocabulary related to their immediate locality

Observation sheet: Class two, week two

Date and time of Observation: 20/09/16 4:30pm

Location of observation: Baker Hall 226a

Length of observation: one hour

Number of students present: 8

Object of activity

The objects of this class were as follows:

- Review of previous vocabulary and structures
- Explore vocabulary related to the family and pronunciation
- Review the rules and pronunciation of the personal numbers
- How to introduce people
- Introduce the class to songs sung in the Irish and the use of the website Multidict

Tools used

Teacher: Laptop, GGS recordings, notes and blackboard,

Student: Student handouts, GGS handouts (section 3), laptops and tablets(some students only), notebooks

Actions observed within the activity

Observations prior to class: Students activity prior to class on the SpeakApps classroom was limited. Only five of the students had accessed the prescribed material that I had specified in the last class as preparation for this face to face class. The majority of the class had done little on Duolingo either as I have observed though they have all began the assignment due this coming Friday.

At the beginning of the class I asked each student individually how they were in order to ascertain if they had memorised the adjectives to comment on their state from the last class. The majority of the students responded using the 'go brea' or 'go maith'. Others added to this by commenting that they were tired. One or two stated that they were not good or used another type of adjective to describe how they were. I then asking question of students as to the state of other students in the

class using the third person (Conas atá sé/sí/x). Three students used the first person pronoun along with the third person pronoun after the verb to answer my question. At the end of this exercise I pointed out the VSO structure of Irish to them again.

Another warm up that I engaged in was to ask the students to name the countries in Irish by asking them 'Cad é an Ghaeilge ar x?'. The students seemed a little unsure at the beginning of this exercise though they were able to recall countries of most immediate relevance to them. I then asked them what they would call an individual from France for example. I reminded them that needed to add 'ach' to the name of the country. I used this as a chance to ask the students questions using the copula intentionally asking them if they were from a country I knew they were not from. This gave them an opportunity to go over some of the structures that had been covered the previous week.

After this brief warm up I then asked the class who had reviewed the Anki flashcard deck that I had forwarded to them via email. The entire class said that they had and that they found the resource to be useful. I am unsure whether this was true or not as I have no way of know if that had accessed it as Anki does not allow for this. I did notice however that the deck had been downloaded 11 times since I posted it so I assume that it is true. Leading on from this, I distribute section 3 from GGS and I also passed out the sheets with the target vocabulary that was posted on SpeakApps. I did not need to give these sheets to everyone as those who had viewed the material prior to the class had printed it out themselves.

I went through the sheet titled *An Teaghlach*. I drilled the pronunciation of this vocabulary and phrases with the students. We also discussed some of the grammatical points that the students encountered on the sheet such as the use of the prepositional pronouns for 'ag' and its function in the sentence (e.g An bhfuil clann agat?/ Do you have a family/a children?). Students had a good grasp of this structure due to this being a common structure used in the earlier lessons in Duolingo I believe. When discussing the vocabulary of the family I directed the students' attention to page 25 on the GGS handout. I did this in order to illustrate the rules concerning the definite article and gender. Also bringing in how this should be addressed on Anki when adding new words etc...

Having looked at these sentences we moved on to a brief speaking and listening exercises. I asked the students to look at the exercise 3.1 in the GGS handout. I played audio for the sentences twice. I then asked the students to stand up and to interact with the other students using this target language. I interacted with the students to assess their pronunciation. There were no issues with this exercise.

Moving on from this we then looked at the personal numbers and their pronunciation. Additionally, I also explained the rules concerning these numbers as covered in the GGS handout and the material on SpeakApps week 2. I then proceeded to a drilling exercise to give the students an opportunity to practice the pronunciation of the new words.

In order to put this new vocabulary into practice we engage in a speaking exercise to answer the question: Cé mhéad duine atá i do theaghlach? I supported the students in this exercise by writing it on the blackboard. Students were instructed to create their own answers by adapting the phrases on the board to suit the description of their own family. Additionally, I asked the students to ask for the names of other people's family members. This proved to be a good opportunity to review introductions and to bring in new prepositional pronoun forms of 'do'. Having looked at the target language and discussing it with the class I then instructed the students to engage as many people they could in the space of five minutes. I also engaged with the students during this exercise which also provided me with the opportunity to move the speaking partners about.

Towards the end of the class we engaged in a listening exercise using tracks 47 and 54 on GGS. I played the track three times through, slowing the tracks in places in order to ask questions of the students and to give them the opportunity to seek additional information on various points.

At the conclusion I wanted to expose the students to some Irish culture and a new piece technology for them to use; Multidict. I played them Cailleach on Airgead and aslo Óró sé do bheatha 'abhaile. I also explained the history/story behind these songs. The students seemed to show interest and enjoyment at these songs. Following this I asked the class to continue to work with the materials on SpeakApps and Duolingo. I informed them that we would continue to work on this topic in the next class. I also asked them to look up words relevant to describing their family, such as parents or siblings occupations.

Division of Labour

Student division of labour prior to class:

- Review the materials on the SpeakApps platform related to the topic (the family).
- Research vocabulary related to their areas of interest or study.
- Continue to engage with the Irish language content on Duolingo.

Teacher in class division of labour:

- Review of target language from the previous class
- Facilitate the speaking exercises
- Explanation of new target language
- Support students in exercises
- Elicit information from the students based on the material covered online
- Engage students one on one during speaking exercises
- Respond to areas of immediate need expressed by the student
- Cover the planned materials for that class
- Engage students with listening material

Student in class division of labour:

- Attend the class on time and with the prescribed materials
- Participate in speaking exercises
- Participate in listening exercises
- Participate in discussions surrounding the target language, the target culture and other elements of the course
- Seek to resolve issue that the students are having with the language
- Ask questions when clarification is required
- Assist other students when possible

After class: Review material covered in class and try to engage with the language independently through the various online resources. Continue to work on the Duolingo assignment for Friday.

Rules

Rules in the online space: interact and completed tasks that have been prescribed by the teacher on all platforms. This also includes reviewing and preparing materials for use in the face to face class.

In class students were required to participate in exercises and classroom discussion to the best of their ability. Additionally, students were required to interact with one another in a respectful manner. Lastly, students were required to follow the teacher's instructions and directions during the class.

Observed Difficulties/Problems

At the conclusion of this episode of activity the following difficulties became apparent to me:

Online/technology difficulties or problems: Since the last activity episode very few of the students have not been interacting with all of the material provided online. This has impacted on the speed with which I am able to move through the course material. Furthermore, it impacts on the amount of speaking exercises that I have been able to engage the students in in this class as I have to revert to traditional teaching styles instead of relying on the class's preparedness.

Students have continued to work on the Duolingo assignments though there has been a smaller amount of activity compared to the previous week. This in turn is affecting the rate at which we can progress as a class as I find myself having to explain again grammatical points that are covered on the app. I am unsure whether the students are using the grammar portion of the course on the website version of the App though I have pointed out this resources several times since the beginning of the course. I am not convinced that the students will have completed the assignment given to them for this coming Friday.

Difficulties in the physical classroom: Within the classroom itself the main difficulties that I experienced this contact related to students following my instructions related to speaking exercises, student pronunciation of new vocabulary and a lack of time to engage in listening exercises with the class.

During the speaking exercises several of the students seem to fix themselves in place and not move to a new partner having completed the scaffolded conversation on the blackboard. This in turn caused chokepoints in the class which effectively stopped all movement or created a barrier to entry to some students who wanted to join a new group. The speaking partners changed only with prompting from me. This led to a lot of time being wasted as I invariably spent more time interacting with the students one on one than student on student interaction and thus could not interrupt the flow of a the students speech. Lastly, the layout of the physical classroom itself is impeding students movement as there are quite a large amount of chair in the class relative to its size.

Due to the students lack of engagement with the materials online and a lack interaction with the additional materials to assist with grammar on Duolingo a large portion of this classes(for a blended approach) time was taken up with traditional instruction. This impacted also on the amount of time I could devote to meaningful speaking practice in the class and also the amount of time that could also be devoted to the listening skill. Additionally, there was also little time to spend with the students exploring the new resource on Multidict. With regard to showing of Multidict, few of the students had brought devices suitable to use this website which is also a problem.

The problems that I noted that have to do with the comprehension of the language related to the rules related to the personal numbers. Students struggled with the meaning of the word 'duine' and 'amháin' and what pattern of usage to follow with the other personal numbers. This is a common mistake among ab initio learners from my experience. Others also used some of the basic numbers as they had learned them on Duolingo.

Pronunciation proved to a continuous issue in this class as I imagine it will be for the rest of the course. Students had significant difficulty with the Irish word for brother(s) and sister(s).

Outcomes

At the conclusion of this class I was satisfied that the students could:

- Use basic vocabulary related to the family and marital status
- Understand to a degree the rules related to the definite article and gender. Such as the lenition of female nouns etc...
- Can as for someone's name in the third person
- Understand the basics of a dialogue between to speakers talking about their family

Week three

Observation sheet: Class one, week 3

Date and time of Observation: 23/09/16 4:30pm

Location of observation: Baker Hall 226a

Length of observation: one hour

Number of students present: 9

Object of activity

The objects of this class were as follows:

- Listening to speakers talk about their family on GGS section 3
- Review all phrases that had been covered in the course to this point
- Convert these phrases into the third person singular to talk about ones family
- Review of the copula to explain what people do
- Review of all pronouns and the prepositional pronouns of 'le' and 'do
- Rules of the possessive particles
- Expand the students competence in expressing their likes/dislikes

Tools used

Teacher: Laptop, GGS recordings section 3 (Track 66), notes and blackboard

Student: Student handouts, GGS handouts (section 3), laptops and tablets(some students only), notebooks

Actions observed within the activity

Observations prior to class: The class was more active on the SpeakApps platform than in the last episode of activity. Most of the students accessed the course and viewed the Irish language song, phrases and audio we had covered in the first weeks of the course. Few accessed materials about the family or personal numbers though this may have had to do with the fact that this material was handed out physically in the last face to face class.

With regard to the Duolingo assignment, student activity was down very much since the last week. Five students had not completed the assignment on time. One of these students had not begun the assignment.

In class face to face observations:

At the start of the class I made my observations of the student online interaction with the learning resources known to the students. I pointed out the importance of people completing the prescribed assignments on time and also the importance of interacting with the target material as much as they could. The portion of the class who were students and not staff at Carnegie Mellon stated that had been busy preparing for assignments.

I began the class in earnest with a listening exercise from GGS (track 66). I instructed the students not to look at their hand outs and to focus on what they heard. I stated that I would play the recording three times. The first time entirely, and then the second time at slowed intervals (pausing after every sentence), and thirdly while looking at the handouts if they so wished. On the second recording I asked the students to translate what they had heard or I asked them what they thought the speaker was saying in a sentence. It was necessary for me to play sentences several times before everyone could understand what was being said or for them to be able to grasp what the speakers were saying. It seems that speakers struggle the most with the Donegal dialect. On the third play through students asked more questions regarding the sentence structures. Notes were made by the students with regard to certain elements of the speech such as the use of 'ar bith' and how to say one is the eldest and youngest.

Leading on from this I began structuring a sample conversation on the board to help the students interact with one another during the speaking portion of the class. On occasion I wrote the sentence in Irish on the board and asked for a translation. For other sentences I asked them to translate a phrase into Irish from English. I alternated my approach to the construction of the sample conversation based on my knowledge of what the students had covered so far in course. This provided a great opportunity to review all of the phrases and structures that had been covered in the course and an opportunity to convert them into the third person singular, as well as plural forms. I wrote these structures down in this format on the board, placing an emphasis on the difference between structures based on genders.

I also took this opportunity to revisit structures such as 'he likes' and 'she likes', focusing on the use of the prepositional pronoun forms used. Additionally, we also looked at the possessive adjectives in some detail as it was evident to me that the students were struggling with the rules that applied here although the class had completed this lesson prior to the class.

Once the conversation had been written up on the board I instructed the students in Irish to rise and to begin talking to their classmates. I pleaded with the students not stand in place once they had finished the practice conversation but to move on to a new partner. I moved about the class interacting with students using the target language and providing assistance where necessary or when requested. I also assisted students with certain vocabulary related to their family such as occupations, and educational terminologies (for example: high school student, elementary student).

This speaking exercise occupied the majority (about 20 minutes) of the class and highlighted a lot of areas to me where the students were struggling with the language. These issues were noted on the board from notes that I had made going around the class and discussed as a class.

At the conclusion of the class I informed the students that we would continue to work on the topic of the family in the next class. I highlighted that we would be focusing on the questions that were posted on SpeakApps.

Division of Labour

Student division of labour prior to class:

- Review the materials on the SpeakApps platform.
- Research vocabulary related to their areas of interest or study.
- Continue to engage with the Irish language content on Duolingo.

Teacher in class division of labour:

- Review of target language from the previous class
- Facilitate the speaking exercises
- Explanation of new target language
- Support students in exercises
- Elicit information from the students based on the material covered online
- Engage students one on one during speaking exercises
- Respond to areas of immediate need expressed by the student
- Cover the planned materials for that class
- Engage students with listening material

Student in class division of labour:

- Attend the class on time and with the prescribed materials
- Participate in speaking exercises
- Participate in listening exercises
- Participate in discussions surrounding the target language, the target culture and other

elements of the course

- Seek to resolve issue that the students are having with the language
- Ask questions when clarification is required
- Assist other students when possible

After class: Continue to review the topic related to the family and to study material already covered.

Rules

Difficulties with the technologies: There were numerous difficulties concerning the use of resources posted on SpeakApps. The difficulties related to the use of non-completion of assignments on the Duolingo platform, the Multidict tool and low engagement in general with the online resources.

Only half of the class managed to complete the Duolingo assignment in the time specified. This delays the advancement of the course and impacts on the student's ability to recall vocabulary, phrases and structures in the class. This in turn impacts on the types of activities that can take place in class and also affects the format of the class as I have had to adopt a traditional approach to overcome gaps in the students' knowledge. These grammar deficits in their knowledge base I believe are linked to the non-interaction of the students with the Duolingo platform and other resources which will be discussed next. Moreover, I also suspect that the students are not interacting with the grammar in any formal way either through the worksheets or on the grammar section on Duolingo resource.

Over this activity episode the interaction with the online tools posted on SpeakApps was low. The activities of this class were dependant on the students having completed and reviewed these exercises.

Lastly, with regard to the most used resource by the student, Multidict, it is unfortunate that I am unable to see how the students are interacting with this annotation glossary.

Difficulties in the physical classroom: (Related to the language learning, completion of exercises and material)

Difficulties in the physical classroom: The difficulties and problems I observed within this face to face class related to the recall of rules and the target language in general.

The management of the class's time was difficult as the class required me to revisit content from the online portion of the course. For example, the majority of the class struggled with the rules

concerning the possessive adjective. The possessive adjective had been covered by the students on the Duolingo platform the previous week. I had to teach the rules to them using the traditional method which impacted on the class time. Additionally, certain students were not confident in expressing their likes or dislikes and could not recall the prepositional pronoun for the other forms in the singular or plural. This again required me to revert to the traditional method.

Another issue which is also impacting on the amount that can be achieved in one class is the students' reluctance to move about the classroom interacting with as many partners as possible during the speaking exercises. I am unsure as to how I can manage this issue or what its exact cause is. I have issued the instruction in several ways now over the recent weeks and this has not had an effect on student behaviour. I have also manipulated the classroom as I suspect that the number of chairs and the chair placement are impacting on the students' movement. Additionally, certain students may be shyer than others to walk about the classroom or interact with people who they do not know. It is important to note that two students in particular are very willing to communicate with everyone and I rely on them to make sure the speaking exercises go smoothly.

Some students are still relying too heavily on the handouts and the blackboard for phrases and sentence that were covered in the last episode of activity. Furthermore, the production of words relevant to their family was non-existent during this class and I was asked for this vocabulary on numerous occasions during the speaking exercises. This vocabulary should have been acquired as a part of the work that was specified in the previous activity episode as part of the language challenge. Lastly, some students are still having trouble with the basics of how to use the copula and when to use the verb 'Bí'.

With regard to the listening portions of the class, the lack of preparedness of the students is also taking away the amount of time that could be spent on this exposure to audio material. Additionally, certain students fail to follow my directions during these portions of the class using their handout to look through the script during the listening only playing.

If the students fail to interact with the specified technology exercises the synergy between the blend of tech and face to face is compromised. thus the face to face format changes from an opportunity to put content into practice and production the face to face class reverts to mini segments of ppp in order to address the needs of those students who are behind.

Observed Outcomes

At the end of this episode of activity I am happy that the students have made progress with regard to the two topics covered in week 1 and 2. This episode of activity did show that the students interaction with the online resources for this topic were less frequent than before. This affected the amount of content and the development of recall and the skills concerning the new target language.

From my observations over this episode I can conclude that the student are competent in the following:

- Using basic everyday phrases
- Providing information about one's background and where they are living
- Expressing likes and dislikes
- Pronouncing the vocabulary in the above points

Students need to spend more time studying the material and completing assignment in order to improve their grasps of the use of the Copula and the verb Tá. Additionally, students need to work on their recall of pronouns and prepositional pronouns in the context of the third person and to a lesser extent the second person.

Date and time of observation: 27/09/16

Location of observation: CMU, Baker Hall 226a

Length of observation: one hour

Number of students present: 8 including a new student who I have agreed to allow to join the class. One student dropping out. He has informed me that he is dropping out due to other time commitments. This is unfortunate.

Object of activity

The objects of this activity episode were:

- Review the phrases and the vocabulary related to the topic the family
- Have the students acquire the vocabulary through self-directed learning that is specific to their family
- Introduce the students to numbers and also the way to state people's ages.
- Build the students' knowledge of this topic by covering material related to expressions stating what order they are in in the family. Oldest/youngest middle person

Tools used

Teacher: Laptop, GGS recordings, notes and blackboard

Student: Student handouts, laptops and tablets(some students only), notebooks

Actions observed within the activity

Observations prior to class: Prior to this face to face class I had assigned two Duolingo assignments specifically focusing on two topics; the family and the present tense. Few students had completed these assignments by the 27th which is understandable as the due date was set for the end of the week (beginning of week 4).

Aside from Duolingo, there was little activity on SpeakApps. The little activity that there was related to the Irish songs and the personal numbers.

In class face to face observations:

At the beginning of the class I engaged in some technical housekeeping. Some students still had not submitted their first recording to talk about where they are from and what they like. I reminded the students that it was important for them to make these recordings as it would help them review the material that they had covered so far.

After this the class began in earnest. We began by listening to recordings from unit 3 of GGS. The following tracks were played during class: 54, 62, 66. As in other classes the tracks were played the students were asked not to look at their handouts. Each track was played twice without the student's reading the script. After the recordings were played I asked if the students had any questions and if they understood them. I read some lines from the script and asked them to explain to me what the speakers were saying. We then played the recordings again and I paused after each sentence and asked the students to translate what they heard. As some of these track had been played in the class before some students had no difficulty understanding the speakers while others asked me to reply the sentence several times. The sentences that contained the words brother and sister as well the sentences containing the personal numbers proved to be the most difficult for the students to understand. After this activity I played the recording one more time as the students looked at the script. After each time we did this I asked the students if they needed anything explained to them.

Students asked about the word *bliain* (year) and how it changed after different numbers. I took this opportunity to teach the students the about *na maoluimhreacha* and *na bunuimhreacha* (cardinal numbers). I explained how they changed in different circumstances (i.e counting and counting things). Additionally I explained how number affected the word that followed them from 2-6 and 7-10. I used the blackboard to illustrate the rules to the students and I also drew their attention to page 28 on the GGS handout. One student inquired about the structure of numbers higher than thirty which I then covered,

Students' attention was also drawn to the structures for saying who was the eldest in their family and who was the youngest. The conversations used in the talking heads section of GGS were highlighted. As in the previous class the students were directed to use these scripts to help them structure their own descriptions of their families.

In the final half hour of the class I instructed the students to prepare themselves to talk about their families. The following sentences were used in order to scaffold this exercise:

1. Cén mhéad duine atá i do theaghlach/ do chlann? - How many people are in your household/family?
2. Cad is ainm dóibh? - What are their names?
3. Cad is maith leo? What do they like?
4. Cad a dhéanann siad? - What do they do?

5. Cá bhfuil siad ina a gcónaí? Where do they live?

The students were also informed that this exercise would serve to prepare them for the next speaking assignment using SoundCloud.

In order to ensure that the students moved around the class I asked the students to form two lines facing each other. I then informed them that there would be a time limit of two minutes per interaction between partners. The purpose of doing this was to ensure that each student would get an opportunity to speak to each other student. This time limit was not strictly enforced as from interaction to interaction students asked question of the teacher in order to clarify a grammar point or to ask for additional vocabulary.

At the conclusion of this exercise I informed the students

Division of Labour

Student division of labour prior to class:

- Review the materials on the SpeakApps platform.
- Research vocabulary related to their areas of interest or study.
- Continue to engage with the Irish language content on Duolingo.

Teacher in class division of labour:

- Review of target language from the previous class
- Facilitate the speaking exercises
- Explanation of new target language
- Support students in exercises
- Elicit information from the students based on the material covered online
- Engage students one on one during speaking exercises
- Respond to areas of immediate need expressed by the student
- Cover the planned materials for that class
- Engage students with listening material

Student in class division of labour:

- Attend the class on time and with the prescribed materials
- Participate in speaking exercises
- Participate in listening exercises
- Participate in discussions surrounding the target language, the target culture and other elements of the course
- Seek to resolve issue that the students are having with the language

- Ask questions when clarification is required
- Assist other students when possible

After class: Complete SoundCloud recording, speaking about one's family. Complete the Duolingo assignments.

Rules

Rules in the online space: Interact with and completed tasks that have been prescribed by the teacher on all platforms. This also includes reviewing and preparing materials for use in the face to face class.

In class students were required to participate in exercises and classroom discussion to the best of their ability. Additionally, students were required to interact with one another in a respectful manner. Lastly, students were required to follow the teacher's instructions and directions during the class.

Observed Difficulties/Problems

Difficulties with the technologies: No new difficulties. Little interaction on the students' part with the resources on SpeakApps. Students continue to interact with the Duolingo platform

Difficulties in the physical classroom:

I observed few difficulties in this face to face class, though those few that I did observe are not new.

Some students are still struggling with the basic copula. These students are in the minority in the class but it is still surprising at this stage in the course. I directed the students which made mistakes with this structure to review the first Duolingo assignment. I also directed the class's attention to this structure while explaining how to say one is the eldest and youngest in the family.

Managing the students' movement around the class has finally been resolved as I have implemented a timer on speaking interactions. This change has come about from a recommendation from one of the students who is also a teacher. By implementing a time limit to cover the content in the time allotted a sense of urgency has been created. For some of the weaker students I feel that it makes

them anxious in that they will be unable to cover the target material in time. Some students still reverted to talking about the language in a metacognitive way during these exercises though.

Pronunciation in the class is improving though there are still issues as one would expect. The majority of the class is still struggling with the pronunciation of the words brother(s) and sister(s) in Irish. Some students are also forgetting the influence the séimhiú has on the pronunciation of vowels as well as the rules related to certain consonants. The soft s is also another area of concern.

During the listening exercises students are continuing to disregard my instruction to listen before they read. When asking them to translate what they hear I see them read the English script. Additionally, with regard to the handouts I do not believe that the students are spending anytime exploring the content within them in their own time. While covering the numbers only some students showed that they were familiar with this vocabulary. As this was not a defined task it is not of major concern though it does reveal the class's interaction with this resource. In addition to this, covering the numbers revealed that students still struggle to recall the urú. Only two students exhibited a recall of the different urús.

Finally, one student has dropped out of the class as he has stated that he has too many other commitments this semester to be able to participate in the class fully.

Observed Outcomes

At the end of this episode of activity I am satisfied that the students are making good progress. I am satisfied that they can converse about their families in a basic way using the most relevant vocabulary and structures related to them. I am confident that they are able to understand the basic points of information concerning the family while others are speaking.

Week four

Observation sheet: Class one, week four

Date and time of Observation: 30/09/16 4:30pm

Location of observation: CMU, Back Hall 226a

Length of observation: one hour

Number of students present: 4

Object of activity

The object of the activity was to expand the participants knowledge and understanding of language to enable them to talk about their hobbies and pastimes.

Specifically the goals of the activity were to help the participants to learn or understand:

- Conjugating regular verbs in the present tense
- How to use the question particle and rules regarding the urú
- How to use the negative particle and the rules of the séimhiú
- Understanding the use of the prepositions 'ar' and 'le' with certain verbs
- Explanation of when to use go and go dtí

Additionally, another object of the activity was to give the participants the opportunity to improve their listening and speaking skills in relation to this week's topic. Recordings of commonly used verbs in Irish relating to sports and activities were played. Towards conclusion of the class the students were asked to interact using the sentences from the records, choosing their own three sentences.

Tools used

Teacher: Unit 5 GGS, Tracks CD 1 track 88, handouts. Class plan, laptop, Bluetooth speaker, Blackboard, chalk

Student: Student handout sheets unit 5, pens and paper, mobile devices (some students only)

Actions observed within the activity

Observations prior to class: There was little activity on the SpeakApps platform prior to this face to face class. The students had been sent a link to the same content posted on SpeakApps and this may have been the reason for this. Six of the students had submitted their second recording before the face to face class. The recordings were of a very good quality. Additionally, all of the students followed the instructions correctly for this speaking assignment.

Students continued to be active on the Duolingo platform though not all of the students had managed to complete the two assignments on time.

In class face to face observations:

I began the class by asking the students if they had reviewed the Oppia exploration titled *An Aimsir Láithreach*. The students who were present stated that they had reviewed the segment. SpeakApps statistics show that only 3 of the students had accessed the Oppia exploration prior to the class though the exploration may have been followed via the link contained in the weekly course email. I then asked them how Irish verbs are organised. I understand that this was an unspecific question. Learner 4 stated that we organise them between broad and slender. I informed them that there are three groups of Irish verbs: first, second and irregular conjugation. I asked them what irregular verbs they knew. They could not answer this question. I highlighted that the verb *Bí* is irregular and highlighted the verb in the present tense *Tá, Níl* and *an bhfuil*. Some of the students (learner 1, learner 6) suggested the copula 'Is' as an irregular verb. I pointed out the differences in use between the copula and the verb *Tá*. I have pointed out to the students the differences in uses before between 'Is' and 'Bí'. Some of them still have difficulty understanding the concepts between them.

I began to write the rule of 'caol le caol, leathan le leathan' on the board. I drew a line between the broad and slender on the board and then asked them how to determine if a verb was in the first conjugation or the second. Several of the students stated the verb in the first conjugation only has one syllable. I then asked if there were any exceptions to this rule to which a student (Learner 4) listed the exempted endings. I then asked them to give me two verbs that were slender and two that were broad. The verbs were *caith* (to throw), *ith* (to eat) *ól* and *póg* (to kiss).

Once the endings of verbs we conjugate in the slender group of the first conjugation. We moved on to the broad verbs. I emphasised the rule of 'caol le caol leathan le leathan' by draw lines from vowel to vowel in order that they would begin to see the pattern.

Moving onto the second conjugation I asked the students how they knew if a verb was in this group. Learner 10 stated that they were multisyllabic. I stated that that was correct. I again elicited slender and broad verbs from the students that fell into this group. The students stated that these verbs were the ones that started on 'igh'. I informed them that they were mostly correct as there were exceptions, but not to worry about that at this point. It was more challenging to get examples of verbs from the students in this group. I proceeded to write the verbs *bailigh* (to collect) and *ceannaigh* (to buy) on the blackboard. I then told the students that we needed to get to the root of the word and in order to do this we must remove either 'igh' or 'aigh'. We then conjugated these verbs by asking the students what the endings were. They found the verbs easy to conjugate orally

but harder to get the spelling correct. I wrote down the verbs conjugate in the present tense correctly.

After this, I laid emphasis on the point of the pronunciation of the 'igh' informing them that it made an 'ee' sound. I did this in order to guide them in their spoken conjugation. I taught them a language hack to remember that if they simply added the sounds mmm or nnn (with a pronoun) to the end of the verb it would then be said in the present tense. I told them not to worry about the spelling too much but the sounds.

Leading on from this we then looked at the use of the question and negative participles, and the rules related to them. When I asked the students what the negative particle was they suggested Níl. I informed them that Níl is the negative form of Tá and that Níl was in fact correct. There was also confusion relating to the question particl. Some students used bhfuil after an and the verb again. Once this had been explained to the students we reviewed the rules relating to the use of the eclipse and lention. I elicited the information from the class but it was clear that they all still struggled to a degree with this features of the language.

In order to facilitate the development of the listening skill in the class I played recording 88 and 90 of CD1 Gaeilge gan stró. Students were asked not to look at their handout and to just listening. The tracks were played thrice. Once fully through and twice at slowed speed. During the second playing the students were asked to translate what the speakers said. In the final playthrough students were told to look at their handout so they could see what the speakers were saying. I explained certain grammatical points with each sentence such as 'ag' forming the gerund of a verb or the requirement of the use of a preposition with the use of the verbs 'éist' or 'féach'. The sentences were then drilled. We then worked through the sentences as a class converting them to questions and negative statements.

Towards the end of the class I asked the students to work with the person beside them asking questions using the sentences on page 48 GGS section 5.1 to guide them. Once this exercise was completed I informed the students that we would continue to work on this topic in the following class.

Division of Labour

Student division of labour prior to class:

- Review the materials on the SpeakApps platform.
- Research vocabulary related to their areas of interest or study.
- Continue to engage with the Irish language content on Duolingo.

Teacher in class division of labour:

- Review of target language from the previous class
- Facilitate the speaking exercises
- Explanation of new target language
- Support students in exercises
- Elicit information from the students based on the material covered online
- Engage students one on one during speaking exercises
- Respond to areas of immediate need expressed by the student
- Cover the planned materials for that class
- Engage students with listening material

Student in class division of labour:

- Attend the class on time and with the prescribed materials
- Participate in speaking exercises
- Participate in listening exercises
- Participate in discussions surrounding the target language, the target culture and other elements of the course
- Seek to resolve issue that the students are having with the language
- Ask questions when clarification is required
- Assist other students when possible

After class: Review the present tense and continue to work on the Duolingo assignments.

Rules

Rules in the online space: Interact with and completed tasks that have been prescribed by the teacher on all technology platforms. This also includes reviewing and preparing materials for use in the face to face class.

In class students were required to participate in exercises and classroom discussion to the best of their ability. Additionally, students were required to interact with one another in a respectful manner. Lastly, students were required to follow the teacher's instructions and directions during the class.

Observed Difficulties/Problems

Difficulties with the technologies: There were very few difficulties that I observed with the technologies this activity episode. The majority of the students submitted their speaking assignment on time and the class continues to interact with the Duolingo platform regularly. In relation to the Duolingo assignments though there were only six students had completed this assignments on time.

There appears to be little visible activity on SpeakApps though this is possibly due to the fact that I have distributed the weekly course content via email. By doing so I am unable to view all of the students interaction with the material provided but I do know that they have listened to the audio files on Soundcloud. Additionally, I am aware that the majority of the class has interacted with the Oppia exploration specified though this is not true in every case.

Difficulties in the physical classroom:

The major difficulty for me this activity episode was the relatively small number of people who attended the class. The purpose of this class was to ensure that the students were comfortable with the conjugation of regular verbs in the present tense before moving onto practical speaking exercises. The small number means that I will now have to revisit this topic in the following class before moving on. This did not seem to bother the students who were present today though when I informed them of this.

I observed a gap in the students' knowledge regarding their knowledge of the verb Tá. The students are still unsure as to the exact meaning of the verb in the negative and question forms. I have observed this problem before in ab initio learners. When composing questions students said 'bhfuil' after the question particle and then placed another verb following it. They were also unaware that the verb 'Bí' is an irregular verb.

The students showed that they continue to grapple with the concept of the copula in that they stated that it was a verb and that it was irregular.

While composing questions students again showed that they had a gap in knowledge concerning the úrus. I have highlighted to the students the importance of these in the language and I have directed them to look at the lessons on Duolingo again.

Lenited consonants continue to prove to be a source of pronunciation difficulty for the students. This is understandable and will improve as we progress through the course.

Observed Outcomes

Students who were present in this class have a basic understanding of how to conjugate verbs in the present tense. The students are now familiar with the rules regarding asking questions and making positive statements also, though they have not committed these rules to memory.

Students are improving their understanding of Irish syntax and sentence composition.

The class has been introduced to vocabulary related to pastimes and sports through the GGS handout.

Observation sheet: Class two, week four

Date and time of Observation: 04/10/16 4:30pm

Location of observation: CMU, Back Hall 226a

Length of observation: one hour

Number of students present: 7. Another student has informed me that she has had to drop out due to work commitments.

Object of activity

The object of this episode of activity episode was to continue to develop student's ability to be able to talk about pastimes and hobbies. More specifically this episode focused on:

- Reviewing content that was covered in the last class
- Review rules related to the present tense
- Have the students who were present in the last class assist other students in learning the grammar rules related to the present tense
- Introduce Irish sports to the class
- Engage students with listening and speaking exercises surrounding pastimes and hobbies

Tools used

Teacher: Unit 5 GGS, Tracks CD 1 track 88, handouts. Class plan, laptop, Bluetooth speaker, blackboard, chalk

Student: Student handout sheets, pens and paper, blackboard, chalk, mobile device (some students only)

Actions observed within the activity

Observations prior to class: little interaction with the SpeakApps platform. Only three students accessed resources in this episode of activity through SpeakApps. The views on the Oppia and SoundCloud exercises suggest that they were accessed by the class through the email I sent in week 3 but I cannot who did and did not.

The class continues to engage with Duolingo consistently. Indeed many of the students are ahead of the assignment that has been prescribed this week.

In class face to face observations: I began the class by inquiring whether the students had completed the Oppia exploration and the reviewed the Duolingo exercises. Several stated that they had not as of yet. I reminded the students the importance of completing these tasks prior to the face to face classes as the activities that I plan are based on this content.

The first action I took was to split the students into two groups. As there was seven students in the class one group had four and the other three. I directed them to take two separate black boards at either side of the room.

Group one: (learners 2, 10, 11)

Learner 11 and 10 had difficulty understanding how to use the question particle in the classroom. It was interesting to see this difficulty as these two students had already completed the question and verb present lesson on Duolingo and they had already reviewed the Oppia exercises. They had an over reliance on the question form of the verb Tá. They kept putting An bhfuil and then the verb after this to ask a question. The group wrote down the correct conjugations for the verbs in the present tense. They wrote it down in a format that would be more similar to learning another language such as French or German in that they listed the 1st, 2nd, 3rd conjugations for the singular and plural tenses.

In order to assist their comprehension of the use of the negative and question particles I asked them to create basic sentences. I then asked them what they would need to change in the sentence in order to turn it into a question. They stated that they would need to add 'An' to the beginning of the sentence. I then asked them what effect that would have on the verb. They informed me that they would need to eclipse it. They also changed the person from first person to second person singular. We then covered the rules of the negative particle.

This group also had trouble grasping the understanding of broad and slender endings. I reiterate the 'golden rule of Irish spelling: Slender with slender broad with broad. I subsequently wrote my own name and other words on the board to illustrate this.

Group two (learners 4, 7, 9, 12): This group had much more success in writing up the conjugation rules for the present tense on the board. This may have been to with the fact that learner 4 who' is one of the stronger students in the class was leading this group. The group divided the board as learner 4 had seen me do in the previous class. The group proceeded to write up the rules with no major issues though there was still some confusion surrounding the use of the rule 'Caol le caol, leathan le leathan'. Once the rules were written up I asked them to tell me about the question and negative particles. Learner 4 was able to write the rules perfectly on the board. Once they completed this I asked them to create sentences of their own.

Once the two groups had written the rules up on the board and create their own sentences I handed out unit 5 of Gaeilge gan stró. I then played the tracks from the last class (track 88, 90). During this listening period students were asked not to look at the scripts of the recordings until the third time that they were played.

The sentences in unit 5.1 were the drilled with the students.

The speaking exercise toward the end of the class went much better than the last one. Learner 11 asking about how she could say that she likes to do something. I informed her of that structure and what form of the verbs that she would need to use but that it is slightly beyond their level currently. There was very little time left in the class for the speaking exercise to allow everyone to interact with one another. More time needs to allotted in the next class for this.

I concluded the class by plying videos of Irish sports; Hurling and Gaelic football. The students seemed very interested in these sports. Two of the students in the class had seen the sport before.

Division of Labour

Student division of labour prior to class:

- Review the materials on the SpeakApps platform.
- Research vocabulary related to their areas of interest or study.
- Continue to engage with the Irish language content on Duolingo.

Teacher in class division of labour:

- Review of target language from the previous class
- Facilitate the speaking exercises

- Explanation of new target language
- Support students in exercises
- Elicit information from the students based on the material covered online
- Engage students one on one during speaking exercises
- Respond to areas of immediate need expressed by the student
- Cover the planned materials for that class
- Engage students with listening material

Student in class division of labour:

- Attend the class on time and with the prescribed materials
- Participate in speaking exercises
- Participate in listening exercises
- Participate in discussions surrounding the target language, the target culture and other elements of the course
- Seek to resolve issue that the students are having with the language
- Ask questions when clarification is required
- Assist other students when possible

After class: Review the material posted in Week 4 on SpeakApps and continue to work on the Duolingo assignments as well as reviewing material covered in the face to face class.

Rules

Rules in the online space: Interact with and completed tasks that have been prescribed by the teacher on all technology platforms. This also includes reviewing and preparing materials for use in the face to face class.

In class students were required to participate in exercises and classroom discussion to the best of their ability. Additionally, students were required to interact with one another in a respectful manner. Lastly, students were required to follow the teacher's instructions and directions during the class.

Observed Difficulties/Problems

Difficulties with the technologies:

Difficulties in the physical classroom: (Related to the language learning, completion of exercises and material)

There were a small number of absences again. Another student has informed me that she will be unable to continue with the course as her work schedule has become increasingly busy. The student state that she feels that she cannot keep up with the course workload either and that by attending the class sporadically will impact negatively on the other students. Another student has been continuously absent for the past three classes and has not engage with the online platforms either. I suspect that he has also dropped out of the course though he has not officially informed me of this.

During the student lead grammar explorations of the present tense it became apparent to me that the students are over thinking the complexity of conjugating Irish verbs. The methods that a lot of the students adopted were very similar to the traditional approaches (Drilling) common in learning European languages such as French or German. Additionally, the formulation of questions and negative statements seemed to cause the students difficulties. The majority of the students at the beginning of creating questions used the dependent form of the verb tá. This is a common mistake that I have witnessed before among ab initio learners. It appears to be mostly the syntax that confused the majority of students. Two of the students (learner 7, learner 4) had no difficulty whatsoever.

The golden rule of Irish spelling is still causing some students some heartache. As the emphasis of this course is on speaking and listening I am not overly concerned. I am sure that this situation will be rectified over time though this rule has been covered many times in the course at this point. I have redirected the students to the Oppia exercises explaining the rule and also the Duolingo exercises on the present tense. I believe that more exposure to the target language is the only remedy. Those who attend the class on a regular basis do not seem to grapple to the same extent as the other students.

Due to the student led grammar exploration exercise going over time there was little opportunity left for speaking practice in this class. This was down to a number of factors including poor time management on my part. I do not regret this as my main goal was to cement the rules for conjugating this tense in the students' knowledge base. I also suspect that a lack of student engagement with the target material online is a reason.

Pronunciation continues to improve though with the introduction. Some students continue to struggle with lenited and eclipsed consonants.

Observed Outcomes

Based on my observations during this episode of activity I can conclude that the students:

- Are more familiar with common verbs used in Irish
- Have expanded their vocabulary related to pastimes, sports and hobbies as well as other everyday activities such as eating and drinking
- Are aware of the different regular verb groups and how to distinguish between the two of them
- Are able to construct questions and negative sentences in the present tense to varying degrees
- Can understand speakers talking about their pastimes and hobbies in a very basic way
- Have improved their pronunciation of Irish words in General

Week five

Observation sheet: Class one, week five

Date and time of Observation: 07/10/16 4:30pm

Location of observation: CMU, Back Hall 226a

Length of observation: one hour

Number of students present: 5

Object of activity

The object of this activity episode was to;

- focus on the development of the speaking and the listening skill with regard to vocabulary surrounding pastimes and hobbies.
- to give the students the opportunity to use their newly acquired vocabulary related to their interests to communicate their interests and hobbies to one another.
- to highlight different structures to the students when say I like something, I like to do something, and I like to go and do something.

Tools used

Teacher: Laptop, Bluetooth speaker, GGS unit 5, Gníochachtaí Gasta, Blackboard and chalk

Student: Student notes, handouts unit 5. Gníomhaíochtaí Gasta pages 70, 71, Mobile devices (some students only).

Actions observed within the activity

Observations prior to class: Limited interaction with the materials provide on the SpeakApps platform. Only two students used this platform to access materials one of which is no longer enrolled in the class.

The Duolingo assignment for this episode of activity was completed by eight students on time. Students continue to be very active on this platform. This is a testament to Duolingo usability and accessibility compared to the other technologies contained with the course's blend.

In class face to face observations:

The class began by reviewing the audio components of unit 5 GGS track 94 conversations 5 a and 5 b. The students were asked to listen to the recordings first without looking at the script. The recordings were firstly played through fully and then a second time at a slowed space. During the second playthrough I paused the recordings after each sentence and asked the students what the speakers were talking. Certain sentences were played more than others when students appeared to have difficulty understanding the speaker. After the second playthrough the students were directed to look at the script of the recordings while they were played a third time.

After listening to track 94 I pointed out how we express having a skill in Irish and the difference between the verb *seinn* and *imir*. We then listened to track 97 exercise 5.2 without the script where I stopped the recording after each sentence and asked the students how they would respond.

Leading on from this exercise I handed out the print outs from *Gníochtaíochtaí Gasta* pages 70 and 71. I went through some of the structures with the class and then asked them to see if they could see a pattern to the structures. The successfully worked it out. Additionally, I went over the pronunciation of new vocabulary with them. Having completed these steps I put the students into small groups asking questions of one another using the target language. The students did a great job with this exercise and presented little difficulty grasping the new concepts. They seem to enjoy scaffolded speaking exercises such as this.

Moving on from this exercise I wrote up the following four questions on the board:

- Cad is maith leat a dhéanamh? - What do you like to do?
- Cén spórt a imríonn tú? - Which sport do you play?
- Cad a dhéanann tú i d'am saor? - What do you do in your spare time?
- Cén caithimh aimsire atá agat? - What hobbies do you have?

I instructed the students to prepare to answer these question as best they could. Once I had given them about five minutes I asked them to rise in Irish and to try and talk to everyone in the class. Due to the small number of people in the class I was able spend a substantial amount of time with each student. As I moved from student to student I noted issues that cropped up. During this interaction I wrote vocabulary up on the board to assist the students. Some of it was new while other vocabulary had been covered in other portions of the course or in previous fact to face sessions. At the conclusion of the exercise I explored the mistakes that the students made together as a class on the board.

Student division of labour prior to class:

- Review the materials on the SpeakApps platform.
- Research vocabulary related to their areas of interest or study.
- Continue to engage with the Irish language content on Duolingo.

Teacher in class division of labour:

- Review of target language from the previous class
- Facilitate the speaking exercises
- Explanation of new target language
- Support students in exercises
- Elicit information from the students based on the material covered online
- Engage students one on one during speaking exercises
- Respond to areas of immediate need expressed by the student
- Cover the planned materials for that class
- Engage students with listening material

Student in class division of labour:

- Attend the class on time and with the prescribed materials
- Participate in speaking exercises
- Participate in listening exercises
- Participate in discussions surrounding the target language, the target culture and other elements of the course
- Seek to resolve issue that the students are having with the language
- Ask questions when clarification is required
- Assist other students when possible

After class: Continue to review the material related to the present tense and to expand their knowledge of the Irish language in relation to their hobbies and interests.

Rules

Rules in the online space: Interact with and completed tasks that have been prescribed by the teacher on all technology platforms. This also includes reviewing and preparing materials for use in the face to face class.

In class students were required to participate in exercises and classroom discussion to the best of their ability. Additionally, students were required to interact with one another in a respectful manner. Lastly, students were required to follow the teacher's instructions and directions during the class.

Observed Difficulties/Problems

Difficulties with the technologies: There is a lack of engagement with the material outside of the Duolingo platform. I am beginning to suspect that there is an over reliance on this platform and that the students consider this technology alone to be sufficient to meet their language learning needs and the requirements of the different exercises in the course.

Difficulties in the physical classroom:

Low number of participants present in the class again. The continued absence of some students in the class and the low attendance rate is starting to impact on the milestones that I have laid out for the class. As the main focus of the course is on the listening and most importantly the speaking skill it is impractical to move on to more complex speaking exercises without at least the majority of the class being on the same level. I suspect that this would not be such an issue if the course was for credit.

One student in the class was not paying attention during the lesson. Additionally learner 11 has not completed the work on the different language learning platforms nor registered for the Duolingo classroom. This caused disruption to the speaking exercises though it did give other students the opportunity to explore their own knowledge of the topic at hand as they helped learner 11 form sentences and talk about their own hobbies. They also broke down the rules that related to this topic, e.g. verb conjugation in the present tense.

I asked the students if they had looked at the questions posted on SpeakApps in week 4 and they stated that they had not. This is frustrating to me as this is meant to make the students be able to use the language more independently and also introduce another level of richness into the class. The conversations during the last speaking exercises were very short in some cases and there was also a lack of vocabulary used specific to the students themselves.

Tá An bhfuil and Níl still persist in causing the students difficulty.

Observed Outcomes

Students who were present in this class were able to speak about their hobbies and pastimes with only slight pronunciation and grammatical issues. They exhibited a satisfactory understand of the grammar rules and also of composing questions. When interacting with the teacher they also were able to express themselves and return question that were asked of them using the emphatic form. The students made great use of the stuctures that were covered in the Gníomaíochtaí Gasta exercises. They also understood the use of bheith before the continuous present form of the verbs eg Is maith liom a bheith ag rith.

Observation sheet: Class two, week five

Date and time of Observation: 11/10/16 4:30pm

Location of observation: Baker Hall 226a

Length of observation: one hour

Number of students present: 7 with two additional native speakers in the classroom

Object of activity

The object of this activity episode was to review all material that had been covered in the course up until this point.

Tools used

Teacher: Laptop, Gaeilge gan stró, GGS audio, notes and blackboard,

Student: Student handouts, Gaeilge gan stró, laptops and tablets(some students only), notebooks, Gníomhaíochtaí gasta handouts

Actions observed within the activity

Observations prior to class: The majority of students who are still attending the course continue to use Duolingo on a daily basis. Two students have not accessed the course in the past week which is slightly worrying as there has also been very limited activity on SpeakApps. Only three students have accessed any of the material posted in week 4 through the platform. Again I have distributed the materials and links via email to the students which would circumvent the need for them to access these materials through the platform. I do this to ensure that the students see what is available straight away when opening the weekly emails though it leaves me blind as to whether they accessed it or not.

In class face to face observations:

Prior to the commencement of the class I wrote the most common questions relating to the topics that we had covered so far in the course on the board to help guide the students during the main speaking exercises.

Once the class began I introduced the two visitors. I then distributed the Gníomhaíochta Gasta from the last face to face class to those who were not present then. I went through the structures and vocabulary with them addressing questions as they arose. Additionally, I also drilled the pronunciation of the new vocabulary with the students. Once this had been completed I instructed the students to engage each other using the target language and to ask questions of one another.

Following on from this speaking exercise I drew the class's attention to the questions that I had written on the board earlier. In order to assist the students I elicited commonly used verbs from them that I then wrote up on the board. After prompting the students with questions and providing them with some new verbs I deemed the list to be sufficient to proceed with the speaking exercise. I informed the class that they would be required to talk to everyone else in the class. I also stated that they would have three minutes for each interaction. Prior to the exercise I gave the students a brief opportunity to prepare themselves for the task.

During this speaking exercise I interacted with each student and assisted with vocabulary and sentence structure. I also wrote additional forms of verbs on the blackboard and added to their notes. The speaking exercise went very smoothly and the students enjoyed the opportunity to interact with other Irish speakers.

At the completion of the speaking exercise I engaged one of the Irish speakers in a similar dialogue that the students had just practiced. I did this in order to give the students the opportunity to listen to a conversation between two speakers in real life. I then inquired as to what they understood or had difficulty understanding.

In the final portion of the class I engaged the students with a listening exercise from unit five; Talking heads (track 6). I went through the same motions as usual for the listening portions of the class. Playing the track multiple times focusing on areas of difficulty for the students by replaying segments of the track. Students asked for clarification regarding 'go/godtí' and chuig. I also drew students' attention to certain phrases contained within the talking head script.

Student division of labour prior to class:

- Review the materials on the SpeakApps platform.
- Research vocabulary related to their areas of interest or study.
- Continue to engage with the Irish language content on Duolingo.

Teacher in class division of labour:

- Review of target language from the previous class
- Facilitate the speaking exercises
- Explanation of new target language
- Support students in exercises
- Elicit information from the students based on the material covered online
- Engage students one on one during speaking exercises
- Respond to areas of immediate need expressed by the student
- Cover the planned materials for that class
- Engage students with listening material

Student in class division of labour:

- Attend the class on time and with the prescribed materials
- Participate in speaking exercises
- Participate in listening exercises
- Participate in discussions surrounding the target language, the target culture and other elements of the course
- Seek to resolve issue that the students are having with the language
- Ask questions when clarification is required
- Assist other students when possible

After class: Go over the content that was covered in the class and extract meaning vocabulary and expressions that are relevant to them.

Rules

Rules in the online space: Interact with and completed tasks that have been prescribed by the teacher on all technology platforms. This also includes reviewing and preparing materials for use in the face to face class.

In class students were required to participate in exercises and classroom discussion to the best of their ability. Additionally, students were required to interact with one another in a respectful manner. Lastly, students were required to follow the teacher's instructions and directions during the class.

Observed Difficulties/Problems

Difficulties with the technologies: Lack of interaction with the other resources on SpeakApps. The Anki deck for pastimes was not as widely downloaded as previous decks. This I believe is one of the reasons for the recall in the class relating to the current target language being so bad among so many of the students.

Difficulties in the physical classroom: (Related to the language learning, completion of exercises and material)

Students continue to struggle to ask questions using the newly learned verbs. Students keep slipping bhfuil between the verb in the present tense and the question particle. Additionally students use níl instead of the negative particle ní. At least I can be confident that the students can definitely recall the verb 'to be' in the present tense. Unfortunately, I am certain that some of the class are not entirely sure as to the use of the verb within different contexts.

The problems with the verb 'to be' are not just confined to asking questions in the present tense with the regular verbs. Students are also mixing up the copula when responding to a question using the verb to be. This is not the biggest issue as I hear native and fluent speakers do this on a regular basis but it is still a cause for concern.

During the speaking practices students are still relying heavily on the student handout material. Some students seem unable or are unconfident in speaking with the support of having the target language written down in front of them. This is not true of all students though. I believe it is mostly a matter of confidence.

Regardless of the time limits set for the speaking exercises and the instructions given by the teacher to use the target language certain students continue to engage in prolonged discussions about the language's grammar. Granted it is not unproductive and I do tolerate some discussion of this sort, but it is not the appropriate time. Some students engage in discussions that take up the majority of the time allotted for speaking practice. There is an opportunity provided for such discussion after every exercise. Additionally, I have made it aware to the students that I am available outside of the classroom time to discuss these things via email or in person. No student has engaged me in this way.

The class still struggles with prepositional pronoun usage when expressing likes and dislikes.

Observed Outcomes

At the conclusion of this episode of activity I have observed the following outcomes:

- Students' recall of the vocabulary, phrases and grammar related to the topics covered in the course to date has improved greatly. Some students' recall is better than others as is natural in language course.
- The class's vocabulary related to themselves that they have sought out through individual research has also
- Expanded student vocabulary related to pastimes and hobbies
- Students are aware of a limited amount of verbal noun forms and are able to express their likes and dislikes for certain activities
- Students understand the difference between *chuig* and *go dtí*
- Students have been introduced to the structures for stating preferences
- The class has also begun to learn about how to express the superlative forms of adjectives.

Week six

Observation sheet: Class one, week six

Date and time of Observation: 14/11/16 4:30pm

Location of observation: Baker Hall 226a

Length of observation: one hour

Number of students present: 8

Object of activity

The object of this activity episode was to cover the following topics:

- Engage the class in a speaking exercise without scaffolding related to the topics covered in the course so far
- Expressing opinions
- Describing the weather
- Days of the week and weekly routines
- Present habitual tense
- Talking about the weekend

Tools used

Teacher: : Laptop, Bluetooth speaker, GGS unit 6, Blackboard and chalk

Student: Student notes, GGS handouts unit 6, Mobile devices (some students only).

Actions observed within the activity

Observations prior to class: The interactions with the material posted on SpeakApps was very low during this episode of activity. This is not overly concerning as no new material was posted on the platform during this time

The majority of the preparatory tasks and materials for the first face to face class of week six were covered in the Duolingo assignments. There were two assignments given in total relating to verbs in the present tense and dates and times. One of these assignments (Dates and Times) had a higher

completion rate than the other. Students who were usually active on the platform became less active during this episode.

Lastly, only three of the students in the class submitted the third SoundCloud speaking assignment.

In class face to face observations:

At the beginning of the class I thank those who had completed the SoundCloud speak assignment and I remind the other students who were present to submit theirs as soon as they could. I explained to them that the recordings served as aural portfolio of the topics that we had covered for the students and that they would help them to recall what they had learned in the future. On top of this, I informed the students that the practice was an important part of preparation for the face to face class exercises.

Moving on from this, I then asked the class to remind me what topics we had covered so far in the course. I listed these on the blackboard. While listing them I ask the students to translate the questions and phrases that related to each topic. Once I had done this I informed the students that we would engage in a speaking exercise and that they would be required to use as much of their Irish. I also stated that they should refrain as much as possible from using handouts and notes and to try and communicate as naturally as possible. I made it clear that this was of course optional and that if they got stuck on something that they could ask their speaking partners, myself or refer to their notes. I set the interaction between students for two minutes. I then went about the class listening to the different conversations, assisting where I could. I was asked for some vocabulary related to the family. The only major issue during this time that I observed related to pronunciation of words to do with the family, hobbies and pastimes. There was little use of the new structures using the verbal noun from the last class. The stronger students in the class were very helpful to those who struggled with such difficulties. It was heartening to see the students work so well as a team of learners. The student completed this speaking exercise very satisfactorily and there was also little discussion in English relating to the grammar. This may have been due to the lack of content written on the blackboard or written material in the form of notes in front of the students.

The following section of the class looked at expressing opinions. I asked the students if they knew the Irish verb for 'to think'. The verb 'ceap' was put forward by two students. I wrote this on the board and also added the other verb 'síil'. I quickly moved through the conjugation of the verbs by asking questions of the students as to what group the verb fell into whether it was broad or slender etc... I then asked how they would express an opinion using these verbs (i.e. indirect speech). This proved to be beyond the students' recall at this time even though the four students who had completed the Duolingo assignment on the lesson verbs two were present. I wrote the structure 'Ceapaim go bhfuil X Y' on the board and then I elicited adjectives and adverbs from the class. I wrote these on the board. Some students also asked for translations from me. I then drilled the pronunciation of this structure with the students as well as the new adjectives.

In order to put this into practice I asked the class as a whole what they thought of various topics such as different types of sports, pastimes, celebrities, politicians and things common in Pittsburgh. The class enjoyed this exercise greatly from what I observed. Expanding on this exercise I wrote new adjectives on the board relating to the weather and temperature. I drilled the pronunciation with the class and then I asked questions this new vocabulary.

Towards the end of the class we looked at the present habitual tense and the days of the week. I did this with the aim of facilitating a speaking exercise based on the weekend. Once this had been completed I set the class the task of asking each other what they usually do on certain days and at the weekend. This speaking exercise went smoothly though it was limited by the amount of time left in the class. I asked the students to go over what had been covered in this face to face lesson.

At the very end of the class I asked those students who had not completed the online assignments on Duolingo and SoundCloud to do so.

Division of Labour

Student division of labour prior to class:

- Review the materials on the SpeakApps platform.
- Research vocabulary related to their areas of interest or study.
- Continue to engage with the Irish language content on Duolingo.

Teacher in class division of labour:

- Review of target language from the previous class
- Facilitate the speaking exercises
- Explanation of new target language
- Support students in exercises
- Elicit information from the students based on the material covered online
- Engage students one on one during speaking exercises
- Respond to areas of immediate need expressed by the student
- Cover the planned materials for that class
- Engage students with listening material

Student in class division of labour:

- Attend the class on time and with the prescribed materials
- Participate in speaking exercises
- Participate in listening exercises
- Participate in discussions surrounding the target language, the target culture and other

elements of the course

- Seek to resolve issue that the students are having with the language
- Ask questions when clarification is required
- Assist other students when possible

After class: Complete third speaking assignment talking about what one does in one's free time. Complete Duolingo weekly assignment. Study the content that was covered in the class today.

Rules

Rules in the online space: Interact with and completed tasks that have been prescribed by the teacher on all technology platforms. This also includes reviewing and preparing materials for use in the face to face class.

In class students were required to participate in exercises and classroom discussion to the best of their ability. Additionally, students were required to interact with one another in a respectful manner. Lastly, students are required to follow the teacher's instructions and directions during the class.

Observed Difficulties/Problems

Difficulties with the technologies: There was a very low completion rate of all the assignments.

Only three of the students completed the SoundCloud speaking assignment on time. This assignment was given to the students with the intention of strengthening their recall of phrases and vocabulary related to pastimes. Additionally, it was also meant to contribute to the reinforcement of their understanding of the conjugation rules for the regular verbs for the present tense.

More students managed to complete the Duolingo assignments than the speaking assignment. This is unsurprising though as half of the class had completed these lesson on the platform prior to the date of assignment. The rate of completion for these assignments was still lower than previous ones.

Difficulties in the physical classroom:

As certain students had not reviewed the prescribed lessons on Duolingo I had to revert to the traditional method to fill the gaps in knowledge. This took away from the classes time that could have been spent focusing on more speaking exercises though it did not have a great impact on the activities that I had planned for the day.

The class in general had difficulty recalling adjectives previously covered in the class. I am unsure how many of the students are creating Anki flashcard decks independently to facilitate their recall of the vocabulary covered in the course so far.

Some students struggled with the concept of the present habitual tense. This is common and they will overcome this difficulty the more the use this target language and the more contact they will have with the target language.

Observed Outcomes

At the conclusion of this episode of activity I have observed the following outcomes:

- Students can formulate and recall the most common questions related to all topics.
- All students can talk about the topics that we have covered so far in the course. Some students can do this at length
- Students' vocabulary has been expanded and they are beginning to be able to talk about daily routines and weekend routines.
-

Observation sheet: Class two, week six

Date and time of Observation: 181016 4:30pm

Location of observation: Baker Hall 226a

Length of observation: one hour

Number of students present: 5

Object of activity

The object of this activity episode was to:

- Review numbers
- Review dates and talking about the time
- Talk about ones daily routines

- Adverbs of time/frequency

Tools used

Teacher: Blackboard and chalk, GGS, Bluetooth speaker

Student: Student handouts GGS section 6, notes, digital devices (some students only)

Actions observed within the activity

Observations prior to class:

More of the student had completed the Duolingo assignment on Dates and times. Only one student was active on SpeakApps.

No additional students had completed the speaking assignment by the end of the course.

In class face to face observations:

Class began with a review of the numbers. I elicited these numbers from the students; everyone present could count to twelve without any difficulty. I then moved on to cover the vocabulary related to the clock and time. I directed students' attention to the GGS handout page 61. I tried to elicit this vocabulary from the students but I was unsuccessful. After some discussion of the pronunciation of the vocabulary and the structure of the sentences I then asked the students to translate different time by drawing hands on the clock face on the board and asking 'Cén t-am é?'

Leading on from this I wrote four questions on the board. We discussed adverbs of frequency as well at this point. I highlighted the construction of the structures to the students and focused on ways to bring new verbs into the structure. Once I had done this I engaged the class as a whole. As I went around the class I was able to interact with all of those present and reinforce the vocabulary, pronunciation and conjugation points. The class performed satisfactorily during this exercise. The repetitive nature of this exercise also allowed me to ask questions of students in the third person to relay information about the previous speaker.

In preparation for the final speaking exercise I directed the students to the GGS handouts page 69. I played the recordings in the usual manner, focusing on new vocabulary and phrases with the students. They made notes base on these and highlighted them in the handouts. They commented on the difference between the dialects and stated that they struggled more with the recording of the second speaker (Donegal Irish).

The students performed very well during the listening exercise. The displayed a good understand of what the speakers were talking about despite not having all of the vocabulary. The discussion of the GGS script at the end of the exercise proved to be a good segway into the present habitual tense. This was discussed in turn. I also digressed into a discussion on Hiberno English and 'I do be'. The students found this expression to be humorous.

Having practiced and drilling the verb 'Bím' and 'Bíonn', I instructed the students to revisit the script and to prepare a similar dialogue in their mind for the final speaking exercise. I stated that the goal of this exercise was to focus on using as much of the Irish that had been covered in the course so far. I stated that each student would have three minutes for each interaction. This exercise proved to be a great display of the progress that the students had made in the language so far. Students were able to talk readily for three minutes about all the topics covered over the duration of the course. Mistakes were still made with regard to some basic elements of the language though there was more self-correction from students this class. I believe this shows that the rules are beginning to set in, at least among the students who were present for this face to face lesson. During my interactions with the students I pushed them hard with new combinations of vocabulary and phrases to ask about their day, hobbies, interested and families. Additionally, I notice that students were increasingly helping each other with this speaking exercise more than in other classes.

At the conclusion of this class I wrote an Irish proverb and blessing on the board and thanked the class for their participation in the course and study.

Division of Labour

Student division of labour prior to class:

- Review the materials on the SpeakApps platform.
- Research vocabulary related to their areas of interest or study.
- Continue to engage with the Irish language content on Duolingo.

Teacher in class division of labour:

- Review of target language from the previous class

- Facilitate the speaking exercises
- Explanation of new target language
- Support students in exercises
- Elicit information from the students based on the material covered online
- Engage students one on one during speaking exercises
- Respond to areas of immediate need expressed by the student
- Cover the planned materials for that class
- Engage students with listening material

Student in class division of labour:

- Attend the class on time and with the prescribed materials
- Participate in speaking exercises
- Participate in listening exercises
- Participate in discussions surrounding the target language, the target culture and other elements of the course
- Seek to resolve issue that the students are having with the language
- Ask questions when clarification is required
- Assist other students when possible

After class: I directed the students to additional resources on SpeakApps should they wish to continue to study Irish in Pittsburgh.

Rules

Rules in the online space: Interact with and completed tasks that have been prescribed by the teacher on all technology platforms. This also includes reviewing and preparing materials for use in the face to face class.

In class students were required to participate in exercises and classroom discussion to the best of their ability. Additionally, students were required to interact with one another in a respectful manner. Lastly, students were required to follow the teacher's instructions and directions during the class.

Observed Difficulties/Problems

Difficulties with the technologies:

The main difficulty this activity episode was the lack of speaking assignment submissions. No other student managed to submit the assignments on time. I suspect that this is due to the students' other time commitments as the semester and work load for every individual in class is increasing as the academic year progress. Two students in particular were busy traveling for work while others made it known to me that they had several papers due. One student also stated she was very busy with extracurricular activities as the chair of the drama society. Extracurricular activity commitments are very common among CMU students. Another student who was not present in the classroom stated that she was occupied with grant proposals and that several due dates for these grant were approaching.

Lastly, student activity on Duolingo rose during this period and there was a high completion rate for the assignment.

Difficulties in the physical classroom:

It was unfortunate that only five students could attend today's class as this influenced the amount of time that could be spent on speaking practice. The low attendance did not affect any of the points that I wished to cover for the class. The wider context in which the courses activity system exists is beginning to have a larger and larger influence on the attendance as the academic semester of Carnegie Mellon progresses.

While engaging the students in the clock exercise I observed that the class had a problems with recalling vocabulary from the Duolingo assignment on this subject. This did not delay the lesson but it highlights a difficulty in the blend.

Understanding certain dialects – students really struggled with understanding the Donegal dialect. This is common and I am unsure how to address dialectical issues with learners of this level in a meaningful way at this point in the course without taking time away from other more productive uses of time.

Observed Outcomes

Based on my observations during this episode of activity I can conclude that the students made good progress in the following;

- Good recall of all topics and related vocabulary, phrases and grammar covered to date

- Ability to talk about the time and one daily habits.
- Ability to give a description of what they engage on a regular basis
- Introduction to the present habitual tense

I also highlighted to the students the opportunities to continue studying Irish in Pittsburgh.

Appendix R Report from external expert and CEFR assessor

Siuán Ní Mhaoinigh was approached by the researcher for assistance in assessing the level of Irish achieved by the student at the end of the course. She is a researcher and a language consultant with expertise in assessment and teaching particularly in relation to the CEFR. Siuán graciously agreed to assist the researcher and the assessment of the individual students' language skill was returned below.

Achoimre

Déarfainn go bhfuil na foghlaimeoirí seo go léir ag leibhéal A1. Bhí na píosaí cainte an-gherr agus mar sin bhí sé deacair breithiúnas cuimsitheach a thabhairt orthu. Ní raibh orthu an aimsir chaite a úsáid, mar shampla, rud lena mbeifí ag súil ag leibhéal A1. Is é atá i gceist agam thíos nuair a deirim 'an stór focal a bhí acu féin' na ná aon rud nár chualadar sna ceisteanna ón scrúdaitheoir.

Learner 2 (A1?)

Tá an píosa cainte le learner 2 an-gherr ach déarfainn go bhfuil sí ag leibhéal A1 ar éigean. Tuigean sí roinnt ceisteanna bunúsacha (e.g. An maith leat...? Cad a dhéanann tú i d'am saor?)

Ach níor thuig sí 'Cad is ainm duit?' agus uaireanta thuig sí an cheist ach ní raibh sí in ann freagra a thabhairt.

Bhí sé deacair breithiúnas a thabhairt ar an stór focal a bhí aici i bpíosa chomh gearr ach ní raibh sí in ann a slí bheatha a rá, mar shampla.

Stór focal a bhí aici féin (rithim, éistim le ceol*)

**Féach Siollabas A1 don stór focal lena mbeifí ag súil ag leibhéal A1.*

Learner 9 (A1)

Déarfainn go bhfuil Learner 9 ag leibhéal A1 íseal. Tuigean sí níos mó ná Learner 2 ach ní bhíonn sí in ann freagra a thabhairt go minic.

'Táim go maith' mar fhreagra ar 'An maith leat?'

'An mbíonn tú ag obair sa ghairdín?' 'Tá'

'An imríonn tú spórt?' 'Níl imrím'

Stór focal a bhí aici féin (pósta, fear céile, páistí, beirt, oibrím, scannáin, siúlaim, madra)

Deacrachtaí leis na huimhreacha.

Learner 8 (A1)

Tá Learner 8 in ann páirt a ghlacadh i gcomhrá simplí san aimsir láithreach.

Stór focal a bhí aici féin (seachtar, athair, máthair, leasmháthair, deartháir, mac léinn, féachaim ar an teilifís, ligim mo scíth)

Learner 4 (A1)

Tá Learner 4 in ann páirt a ghlacadh i gcomhrá simplí san aimsir láithreach (agus a thuairim a thabhairt 'ceapaim go bhfuil Pittsburgh fuar') ach tá roinnt deacrachtaí aige le struchtúr na habairte (tá i do chónaí i New Mexico, léim mac léinn do leabhair, is maith liom ag déan imríocht cluichí ríomhaire)

É sin ráite, tá sé in ann freagra ceart a thabhairt ar na ceisteanna (e.g. An léann?-Léim, An maith leat? -Is maith srl.)

Stór focal a bhí aige féin (peil Mheiriceánach, triúr, máthair, athair, dochtúir, madra, leabhar, cluichí ríomhaire, ag ól)

Deacrachtaí leis na huimhreacha.

Learner 6 (A1)

Tá Learner 6 in ann páirt a ghlacadh i gcomhrá simplí san aimsir láithreach e.g. tuigeann sí na ceisteanna ach ní bhíonn sí in ann freagra a thabhairt i gcónaí.

Roinnt deacrachtaí leis na struchtúir (An Meiriceánach tú? Níl, An bhféachann tú ar an teilifís? Níl feicim)

Stór focal a bhí aici féin (múinteoir, eolaí, máthair, athair, is breá liom, cócaireacht, drámaí)

Bhí focail eile aici a bhí dothuigthe de bharr na foghraíochta (cathair, rith).

Learner 7 (A1)

Tá Learner 7 in ann páirt a ghlacadh i gcomhrá simplí san aimsir láithreach agus tá smacht aige ar struchtúr na habairte.

Stór focal a bhí aige féin (cúigear, athair, máthair, deartháir, deirfiúr, mic léinn, múinteoir, innealtóireacht cheimiceach, scoil, is breá liom, léim leabhair, éistim le ceol, féachaim ar, cócaireacht)

Appendix S NVivo 11 Coding Summary Reports

NVivo 11 Coding Summary by Node/Code report: Group 1`

AC1: Action Description

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Node

Nodes\\Action\\AC1

Document

Internals\\Week 1\\Student Feedback Sheets\\1WKL1

No	Coverage	Number	Reference	Coded By	Modified On
	0.0278	7			
1			1	OOD	11/07/2017 14:50
listened to					
2			2	OOD	11/07/2017 14:51
listened					
3			3	OOD	11/07/2017 14:52
listen					
4			4	OOD	11/07/2017 14:56
hear					
5			5	OOD	11/07/2017 14:58
Reading					
6			6	OOD	11/07/2017 14:59
listening					
7			7	OOD	11/07/2017 15:00
read					

Internals\\Week 1\\Student Feedback Sheets\\1WKL2

No	Coverage	Number	Reference	Coded By	Modified On
	0.0638	15			
1			1	OOD	18/07/2017 12:09
want to practice					

26/10/2017 12:10

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
	repeat		2		OOD	18/07/2017 12:11
	I try to duplicate it.		3		OOD	18/07/2017 12:11
	tried to write down		4		OOD	18/07/2017 12:13
	practice speaking		5		OOD	18/07/2017 12:15
	got on		6		OOD	18/07/2017 12:17
	did		7		OOD	18/07/2017 12:17
	reading		8		OOD	18/07/2017 12:18
	a lot to process		9		OOD	18/07/2017 12:19
	learned		10		OOD	18/07/2017 12:20
	telling		11		OOD	18/07/2017 12:22
	say		12		OOD	18/07/2017 12:22
	reading though		13		OOD	18/07/2017 12:23
	been trying to speak along with		14		OOD	18/07/2017 12:23

hear you say

Aggregate	Classification	Coverage	Number	Reference	Coded By	Modified On
			Of Coding	Number	Initials	
References						

Internals\Week 1\Student Feedback Sheets\1WKL4

No	Coverage	Number	Reference	Coded By	Modified On
	0.0140	2			
			1	OOD	18/07/2017 12:33
Doing practice					
			2	OOD	18/07/2017 12:33
review with					

Internals\Week 1\Student Feedback Sheets\1WKL5

No	Coverage	Number	Reference	Coded By	Modified On
	0.0265	2			
			1	OOD	18/07/2017 12:36
knowing how to pronounce					
			2	OOD	18/07/2017 12:42
speaking					

Internals\Week 1\Student Feedback Sheets\1WKL7

No	Coverage	Number	Reference	Coded By	Modified On
	0.0250	4			
			1	OOD	18/07/2017 12:55
Practicing conversations					
			2	OOD	18/07/2017 12:55
learning					
			3	OOD	18/07/2017 12:55
memorizing					

4 OOD 18/07/2017 12:59

speaking

Internals\\Week 1\\Student Feedback Sheets\\1WKL8

No 0.0175 4

1 OOD 18/07/2017 13:02

hear

2 OOD 18/07/2017 13:03

used

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
-----------	----------------	----------	-----------------------------	------------------	-------------------	-------------

3 OOD 18/07/2017 13:03

stared

4 OOD 18/07/2017 13:05

Listening

Internals\\Week 1\\Student Feedback Sheets\\1WKL9

No 0.0407 5

1 OOD 18/07/2017 13:08

got

2 OOD 18/07/2017 13:10

downloaded

3 OOD 18/07/2017 13:13

I'm trying to figure out how to remember them

4 OOD 18/07/2017 13:15

Like above, practice

5 OOD 18/07/2017 13:15

just sheer grit

Internals\\Week 2\\Student Feedback Sheets\\2WK10

No	Coverage	Number	Reference	Coded By	Modified On
	0.0646	3			
		1	OOD		01/08/2017 13:35
tried to have more Irish conversations					
		2	OOD		01/08/2017 13:37
continue to listen to					
		3	OOD		01/08/2017 13:38
I have starting.					

Internals\\Week 2\\Student Feedback Sheets\\2WKL1

No	Coverage	Number	Reference	Coded By	Modified On
	0.0290	2			
		1	OOD		01/08/2017 13:42
did over 100 points					

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
			2	OOD		01/08/2017 13:43
did learn and pass						

Internals\\Week 2\\Student Feedback Sheets\\2WKL2

No	Coverage	Number	Reference	Coded By	Modified On
	0.0449	9			
		1	OOD		01/08/2017 13:50
spent some time going to the					
		2	OOD		01/08/2017 13:51
put up on the					
		3	OOD		01/08/2017 13:51
used it when I made my					
		4	OOD		01/08/2017 13:52
did download					
		5	OOD		01/08/2017 13:55

focused on

6	OOD	01/08/2017 13:56
---	-----	------------------

when we discussed

7	OOD	01/08/2017 13:56
---	-----	------------------

But I also listened

8	OOD	01/08/2017 13:57
---	-----	------------------

Doing

9	OOD	01/08/2017 13:59
---	-----	------------------

stayed

Internals\\Week 2\\Student Feedback Sheets\\2WKL4

No	0.0448	4
----	--------	---

1	OOD	01/08/2017 14:54
---	-----	------------------

am trying to get the

2	OOD	01/08/2017 14:55
---	-----	------------------

I've been practicing on the

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
-----------	----------------	----------	-----------------------------------	---------------------	----------------------	-------------

3	OOD	01/08/2017 14:56
---	-----	------------------

also try to find how

4	OOD	01/08/2017 15:01
---	-----	------------------

using

Internals\\Week 2\\Student Feedback Sheets\\2WKL5

No	0.0144	2
----	--------	---

1	OOD	01/08/2017 15:05
---	-----	------------------

speaking

2	OOD	01/08/2017 15:08
---	-----	------------------

Going to

Internals\\Week 2\\Student Feedback Sheets\\2WKL6

No	0.0141	3			
			1	OOD	01/08/2017 15:10
I					
			2	OOD	01/08/2017 15:10
watching					
			3	OOD	01/08/2017 15:10
listen					

Internals\\Week 2\\Student Feedback Sheets\\2WKL7

No	0.0458	5			
			1	OOD	01/08/2017 15:14
practiced					
			2	OOD	01/08/2017 15:14
and used					
			3	OOD	01/08/2017 15:16
Pronouncing					
			4	OOD	01/08/2017 15:17
Conversations					

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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			5	OOD	01/08/2017 15:17
practice pronouncing					

Internals\\Week 2\\Student Feedback Sheets\\2WKL8

No	0.0552	5			
			1	OOD	01/08/2017 15:19

been listening to the

	2	OOD	01/08/2017 15:19
--	---	-----	------------------

asking about

	3	OOD	01/08/2017 15:20
--	---	-----	------------------

trying to mouth the words

	4	OOD	01/08/2017 15:21
--	---	-----	------------------

Asking

	5	OOD	01/08/2017 15:21
--	---	-----	------------------

listening

Internals\\Week 2\\Student Feedback Sheets\\2WKL9

No	0.0041	1
----	--------	---

	1	OOD	01/08/2017 15:23
--	---	-----	------------------

looked

Internals\\Week 3\\Student Feedback Sheets\\3WKL10

No	0.0268	4
----	--------	---

	1	OOD	01/08/2017 15:49
--	---	-----	------------------

working to

	2	OOD	01/08/2017 15:51
--	---	-----	------------------

continue to listen to

	3	OOD	01/08/2017 15:55
--	---	-----	------------------

use

Aggregate Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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	4	OOD	01/08/2017 15:56
--	---	-----	------------------

found

Internals\\Week 3\\Student Feedback Sheets\\3WKL2

No	0.0620	12			
			1	OOD	01/08/2017 15:57
continued to talk about					
			2	OOD	01/08/2017 15:58
did					
			3	OOD	01/08/2017 16:00
reviewed					
			4	OOD	01/08/2017 16:01
watch					
			5	OOD	01/08/2017 16:01
wrote down everything					
			6	OOD	01/08/2017 16:02
I was planning on saying.					
			7	OOD	01/08/2017 16:02
did my best to translate it to Irish					
			8	OOD	01/08/2017 16:02
trying to put the					
			9	OOD	01/08/2017 16:03
used					
			10	OOD	01/08/2017 16:08
missed					
			11	OOD	01/08/2017 16:11
listened to					
			12	OOD	01/08/2017 16:10
even listened back					

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 3\\Student Feedback Sheets\\3WKL6

No	Coverage	Number	Reference Number	Coded By Initials	Modified On
	0.0426	5	1	OOD	03/08/2017 15:36
have used more			2	OOD	03/08/2017 15:36
listen			3	OOD	03/08/2017 15:43
re-reading			4	OOD	03/08/2017 15:44
have studied			5	OOD	03/08/2017 15:47
sharing the findings					

Internals\\Week 3\\Student Feedback Sheets\\3WKL7

No	Coverage	Number	Reference Number	Coded By Initials	Modified On
	0.0331	6	1	OOD	03/08/2017 15:51
used			2	OOD	03/08/2017 15:51
to memorize			3	OOD	03/08/2017 15:52
to practice			4	OOD	03/08/2017 15:53
using			5	OOD	03/08/2017 15:53
talking			6	OOD	03/08/2017 15:59
Writing					

Aggregate	Classification	Coverage	Number	Reference	Coded By	Modified On
			Of Coding	Number	Initials	
			References			

Internals\Week 3\Student Feedback Sheets\3WKL8

Aggregate	Classification	Coverage	Number	Reference	Coded By	Modified On
			Of Coding	Number	Initials	
			References			
No		0.0331	4			
				1	OOD	03/08/2017 16:09
	Spoke the words more					
				2	OOD	03/08/2017 16:09
	tried					
				3	OOD	05/08/2017 12:54
	spoke					
				4	OOD	05/08/2017 12:57
	Asking					

Internals\Week 3\Student Feedback Sheets\3WKL9

Aggregate	Classification	Coverage	Number	Reference	Coded By	Modified On
			Of Coding	Number	Initials	
			References			
No		0.0137	2			
				1	OOD	05/08/2017 13:00
	I've made myself					
				2	OOD	05/08/2017 13:00
	looked up					

Internals\Week 4\Student Feedback Sheets\4WKL9

Aggregate	Classification	Coverage	Number	Reference	Coded By	Modified On
			Of Coding	Number	Initials	
			References			
No		0.0035	1			
				1	OOD	05/08/2017 13:11
	worked					

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Node

Nodes\\Action\\Ac2

Document

Internals\\Week 1\\Student Feedback Sheets\\1WKL1

No	Coverage	Number	Reference	Coded By	Modified On
	0.0077	1	1	OOD	11/07/2017 14:52
multiple times					

Internals\\Week 1\\Student Feedback Sheets\\1WKL2

No	Coverage	Number	Reference	Coded By	Modified On
	0.0471	9	1	OOD	18/07/2017 12:05
This week					
			2	OOD	18/07/2017 12:10
we got this week					
			3	OOD	18/07/2017 12:11
many times					
			4	OOD	18/07/2017 12:13
During class,					
			5	OOD	18/07/2017 12:16
As soon as					
			6	OOD	18/07/2017 12:19
after the first week					
			7	OOD	18/07/2017 12:20
It's been a while since					

Aggregate Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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8 OOD 18/07/2017 12:21

So after the first week,

9 OOD 18/07/2017 12:21

When I went home

Internals\\Week 1\\Student Feedback Sheets\\1WKL4

No 0.0291 4

1 OOD 18/07/2017 12:32

from class.

2 OOD 18/07/2017 12:31

classroom

3 OOD 18/07/2017 12:34

outside the course

4 OOD 18/07/2017 12:34

twice a week.

Internals\\Week 1\\Student Feedback Sheets\\1WKL5

No 0.0458 2

1 OOD 18/07/2017 12:41

The large amount of time spent during class

2 OOD 18/07/2017 12:51

Going to class

Internals\\Week 1\\Student Feedback Sheets\\1WKL7

No 0.0468 6

1 OOD 18/07/2017 12:55

in class,

2 OOD 18/07/2017 12:56

Through the in-class conversations,

3 OOD 18/07/2017 12:58

Likewise, I often cannot

26/10/2017 12:12

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
	in class			4	OOD	18/07/2017 13:00
	Practicing on			5	OOD	18/07/2017 13:01
	everyday			6	OOD	18/07/2017 13:01

Internals\Week 1\Student Feedback Sheets\1WKL8

No 0.0099 1

1 OOD 18/07/2017 13:06

in class work

Internals\Week 1\Student Feedback Sheets\1WKL9

No 0.0121 2

1 OOD 18/07/2017 13:08

But then

2 OOD 18/07/2017 13:17

except for in class

Internals\Week 2\Student Feedback Sheets\2WK10

No 0.0099 1

1 OOD 01/08/2017 13:38

was recently

Internals\Week 2\Student Feedback Sheets\2WKL1

No 0.0375 3

1 OOD 01/08/2017 13:41
Well, last week

2 OOD 01/08/2017 13:42
to try and catch up

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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3 OOD 01/08/2017 13:42
when I got back

Internals\\Week 2\\Student Feedback Sheets\\2WKL2

No 0.0465 7

1 OOD 01/08/2017 13:45
During week two,

2 OOD 01/08/2017 13:50
This weekend,

3 OOD 01/08/2017 13:54
This week

4 OOD 01/08/2017 13:56
This is all building on last week

5 OOD 01/08/2017 13:57
many, many times.

6 OOD 01/08/2017 13:58
the class time this week.

7 OOD 01/08/2017 13:59
in Pittsburgh this weekend

Internals\\Week 2\\Student Feedback Sheets\\2WKL4

No	Coverage	Number	Reference	Coded By	Modified On
	0.0155	4			
Currently		1	OOD		01/08/2017 14:18
So far		2	OOD		01/08/2017 14:55
since		3	OOD		01/08/2017 14:58
when		4	OOD		01/08/2017 15:01

Aggregate	Classification	Coverage	Number	Reference	Coded By	Modified On
			Of Coding	Number	Initials	
			References			

Internals\Week 2\Student Feedback Sheets\2WKL5

No	Coverage	Number	Reference	Coded By	Modified On
	0.0392	2			
The large amount of time spent during class		1	OOD		01/08/2017 15:05
class		2	OOD		01/08/2017 15:08

Internals\Week 2\Student Feedback Sheets\2WKL6

No	Coverage	Number	Reference	Coded By	Modified On
	0.0423	3			
am starting to try to listen more		1	OOD		01/08/2017 15:10
In two weeks,		2	OOD		01/08/2017 15:10
Now,		3	OOD		01/08/2017 15:11

Internals\Week 2\Student Feedback Sheets\2WKL7

No	Coverage	Number	Reference	Coded By	Modified On
	0.0133	2			
1			1	OOD	01/08/2017 15:14
in class					
2			2	OOD	01/08/2017 15:17
in class					

Internals\\Week 2\\Student Feedback Sheets\\2WKL8

No	Coverage	Number	Reference	Coded By	Modified On
	0.0079	1			
1			1	OOD	01/08/2017 15:21
more often					

Aggregate	Classification	Coverage	Number	Reference	Coded By	Modified On
			Of Coding	Number	Initials	
			References			

Internals\\Week 2\\Student Feedback Sheets\\2WKL9

No	Coverage	Number	Reference	Coded By	Modified On
	0.0055	1			
1			1	OOD	01/08/2017 15:23
online					

Internals\\Week 3\\Student Feedback Sheets\\3WKL10

No	Coverage	Number	Reference	Coded By	Modified On
	0.0031	1			
1			1	OOD	01/08/2017 15:49
still					

Internals\\Week 3\\Student Feedback Sheets\\3WKL2

No	Coverage	Number	Reference	Coded By	Modified On
	0.0373	11			
1			1	OOD	01/08/2017 15:57

Class on Tuesday

	2	OOD	01/08/2017 15:58
--	---	-----	------------------

over the weekend

	3	OOD	01/08/2017 16:01
--	---	-----	------------------

on Friday.

	4	OOD	01/08/2017 16:01
--	---	-----	------------------

first

	5	OOD	01/08/2017 16:02
--	---	-----	------------------

Then

	6	OOD	01/08/2017 16:02
--	---	-----	------------------

while

	7	OOD	01/08/2017 16:04
--	---	-----	------------------

a lot

	8	OOD	01/08/2017 16:08
--	---	-----	------------------

Friday

	9	OOD	01/08/2017 16:09
--	---	-----	------------------

Tuesday

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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				10	OOD	01/08/2017 16:11
--	--	--	--	----	-----	------------------

a couple of times

				11	OOD	01/08/2017 16:13
--	--	--	--	----	-----	------------------

this week,

Internals\\Week 3\\Student Feedback Sheets\\3WKL4

No	0.0205	3
----	--------	---

				1	OOD	01/08/2017 16:15
--	--	--	--	---	-----	------------------

this week

	2	OOD	01/08/2017 16:17
--	---	-----	------------------

previous weeks.

	3	OOD	01/08/2017 16:32
--	---	-----	------------------

more frequently,

Internals\\Week 3\\Student Feedback Sheets\\3WKL6

No	0.0148	3			
----	--------	---	--	--	--

	1	OOD	01/08/2017 16:34
--	---	-----	------------------

week 2

	2	OOD	03/08/2017 15:37
--	---	-----	------------------

In three weeks

	3	OOD	03/08/2017 15:37
--	---	-----	------------------

Now

Internals\\Week 3\\Student Feedback Sheets\\3WKL7

No	0.0026	1			
----	--------	---	--	--	--

	1	OOD	03/08/2017 16:03
--	---	-----	------------------

When

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 3\\Student Feedback Sheets\\3WKL8

No	0.0305	2			
----	--------	---	--	--	--

	1	OOD	05/08/2017 12:54
--	---	-----	------------------

outside of just the classroom

	2	OOD	05/08/2017 12:59
--	---	-----	------------------

often.

Internals\\Week 4\\Student Feedback Sheets\\4WKL9

No	0.0041	1			
			1	OOD	05/08/2017 13:10

Mostly

Internals\\Week 5\\Student Feedback Sheets\\5WKL9

No	0.0090	1			
			1	OOD	05/08/2017 13:14

last Friday's class,

NVivo 11 Coding Summary by Node/Code report: Group 2

AR1: Aretfacts used by learner (text, cassette, video, TV programme)

Node

Nodes\\Component of activity\\AR1

Document

Internals\\Week 1\\Student Feedback Sheets\\1WKL1

No	0.0814	5			
			1	OOD	11/07/2017 14:50
the recordings from Oisin					
			2	OOD	11/07/2017 14:52
to the class recordings of the basic phrases					
			3	OOD	11/07/2017 14:56
website					
			4	OOD	11/07/2017 14:58
conversations from a sheet of paper/ worksheet/ program					
			5	OOD	11/07/2017 15:00
along with the dialogue					

Internals\\Week 1\\Student Feedback Sheets\\1WKL2

No	0.0537	7			
			1	OOD	18/07/2017 12:10
the sheets					
			2	OOD	18/07/2017 12:14
soundcloud recordings					
			3	OOD	18/07/2017 12:17
saw the flyer					

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
	the book pages		4		OOD	18/07/2017 12:18
	Basic Irish Phrases document		5		OOD	18/07/2017 12:22
	the basic phrases and the background sheet outload.		6		OOD	18/07/2017 12:23
	the SoundCloud recordings.		7		OOD	18/07/2017 12:23

Internals\Week 1\Student Feedback Sheets\1WKL4

No	Coverage	Number	Reference Number	Coded By Initials	Modified On
0.0323	4	1		OOD	18/07/2017 12:27
		2		OOD	18/07/2017 12:28
		3		OOD	18/07/2017 12:30
		4		OOD	18/07/2017 12:33

Internals\Week 1\Student Feedback Sheets\1WKL8

No	Coverage	Number	Reference Number	Coded By Initials	Modified On
0.0380	3	1		OOD	18/07/2017 13:03
		2		OOD	18/07/2017 13:03
		3		OOD	18/07/2017 13:05

the audio files online

26/10/2017 12:14

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\Week 1\Student Feedback Sheets\1WKL9

No 0.0458 1

1 OOD 18/07/2017 13:08

verbs and different persons (conjugations) and then more prepositional pronouns... Arg! (in the English sense).

Internals\Week 2\Student Feedback Sheets\2WK10

No 0.0074 1

1 OOD 01/08/2017 13:37

podcasts

Internals\Week 2\Student Feedback Sheets\2WKL2

No 0.0370 6

1 OOD 01/08/2017 13:50

different websites

2 OOD 01/08/2017 13:51

speakapps website

3 OOD 01/08/2017 13:51

Focloir.ie

4 OOD 01/08/2017 13:52

Abair.ie

5 OOD 01/08/2017 13:57

to the pronunciations

6 OOD 01/08/2017 13:57

the listening exercises from the book

Internals\\Week 2\\Student Feedback Sheets\\2WKL6

No	Coverage	Number	Reference	Coded By	Modified On
	0.0082	2			
			1	OOD	01/08/2017 15:10

TV

Reports\\Coding Summary By Node Report

Page 3 of 5

26/10/2017 12:14

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
				2	OOD	01/08/2017 15:10

musics.

Internals\\Week 2\\Student Feedback Sheets\\2WKL8

No	Coverage	Number	Reference	Coded By	Modified On
	0.0414	3			
			1	OOD	01/08/2017 15:19

things that are posted

			2	OOD	01/08/2017 15:21
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the handout.

			3	OOD	01/08/2017 15:21
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the materials online.

Internals\\Week 3\\Student Feedback Sheets\\3WKL10

No	Coverage	Number	Reference	Coded By	Modified On
	0.0261	1			
			1	OOD	01/08/2017 15:56

helpful lists of prepositional pronouns.

Internals\\Week 3\\Student Feedback Sheets\\3WKL2

No	Coverage	Number
	0.0126	2

1 OOD 01/08/2017 16:00
the Oppia

2 OOD 01/08/2017 16:11
the recording you uploaded

Internals\\Week 3\\Student Feedback Sheets\\3WKL4

No 0.0580 2

1 OOD 01/08/2017 16:16
One website I tend to use for quick information is Wiktionary

2 OOD 01/08/2017 16:31
Otherwise my resources were the same as previous weeks.

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 3\\Student Feedback Sheets\\3WKL6

No 0.0187 1

1 OOD 03/08/2017 15:42
sheets to say basic sentences

Internals\\Week 3\\Student Feedback Sheets\\3WKL9

No 0.0142 1

1 OOD 05/08/2017 13:03
Online guides/explanations

Internals\\Week 4\\Student Feedback Sheets\\4WKL9

No 0.0232 1

1 OOD 05/08/2017 13:09
The usual, I haven't used anything new.

Internals\\Week 5\\Student Feedback Sheets\\5WKL8

No	0.0079	1			
			1	OOD	05/08/2017 13:12

Abair.ie

Internals\\Week 5\\Student Feedback Sheets\\5WKL9

No	0.0190	1			
			1	OOD	05/08/2017 13:16

what was provided to us from the instructor

AR2: Artefact created by the learner

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Node

Nodes\\Component of activity\\AR2

Document

Internals\\Week 2\\Student Feedback Sheets\\2WKL2

No	0.0065	1			
			1	OOD	01/08/2017 13:52

soundcloud recording

Internals\\Week 3\\Student Feedback Sheets\\3WKL2

No	0.0188	2			
			1	OOD	01/08/2017 15:58

a soundcloud recording on my family

			2	OOD	01/08/2017 16:10
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my own recording

Internals\\Week 3\\Student Feedback Sheets\\3WKL7

No	0.0317	1			
			1	OOD	03/08/2017 16:00

Writing the recorded passage about my household

Internals\\Week 3\\Student Feedback Sheets\\3WKL9

No	0.0300	1
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1	OOD	05/08/2017 13:00
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some charts for the combinations of vowels and consonants

Reports\\Coding Summary By Node Report

Page 1 of 2

26/10/2017 12:16

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 5\\Student Feedback Sheets\\5WKL9

No	0.0337	2
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1	OOD	05/08/2017 13:18
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notes on pronunciation

2	OOD	05/08/2017 13:18
---	-----	------------------

charts of the subject, object and prepositional pronouns

CO1: Community

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Node

Nodes\\Component of activity\\CO1

Document

Internals\\Week 1\\Student Feedback Sheets\\1WKL2

No	0.0062	1
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1	OOD	18/07/2017 12:15
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My manager, Cathy,

Internals\\Week 1\\Student Feedback Sheets\\1WKL5

No	0.0128	1
----	--------	---

1 OOD 18/07/2017 12:42

with each other

Internals\\Week 1\\Student Feedback Sheets\\1WKL9

No 0.0088 3

1 OOD 18/07/2017 13:08

we

2 OOD 18/07/2017 13:10

Learner 10. And I

3 OOD 18/07/2017 13:15

with Learner 10

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 2\\Student Feedback Sheets\\2WK10

No 0.0099 1

1 OOD 01/08/2017 13:36

with my wife

Internals\\Week 2\\Student Feedback Sheets\\2WKL2

No 0.0026 1

1 OOD 01/08/2017 13:50

that you

Internals\\Week 2\\Student Feedback Sheets\\2WKL5

No 0.0128 1

1 OOD 01/08/2017 15:06

with each other

Internals\\Week 3\\Student Feedback Sheets\\3WKL2

No 0.0041 2

1 OOD 01/08/2017 15:57

we

2 OOD 01/08/2017 16:10

my sister

Internals\\Week 3\\Student Feedback Sheets\\3WKL6

No 0.0090 1

1 OOD 03/08/2017 15:46

with a friend

OB1: Object Language

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Node

Nodes\\Component of activity\\OB1

Document

Internals\\Week 1\\Student Feedback Sheets\\1WKL2

No 0.0245 2

1 OOD 18/07/2017 12:06

we started right into our backgrounds and where we are from

2 OOD 18/07/2017 12:21

another language

Internals\\Week 1\\Student Feedback Sheets\\1WKL4

No 0.1069 2

1 OOD 18/07/2017 12:26

Understanding the sounds and orthography of the language properly were my main challenges

2 OOD 18/07/2017 12:26

I had no particular goals for the first few weeks other than to gain a proper starting point in the language.

Internals\\Week 1\\Student Feedback Sheets\\1WKL5

No 0.0337 1

1 OOD 18/07/2017 12:42

Achieve a very basic conversational level.

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 1\\Student Feedback Sheets\\1WKL8

No 0.0289 1

1 OOD 18/07/2017 13:03

My goal is to be able to say the words

Internals\\Week 1\\Student Feedback Sheets\\1WKL9

No 0.0109 1

1 OOD 18/07/2017 13:07

My goals were to practice

Internals\\Week 2\\Student Feedback Sheets\\2WKL2

No 0.0242 2

1 OOD 01/08/2017 13:48

and need to focus on the family terms

2 OOD 01/08/2017 13:56

our backgrounds and where we are from

Internals\\Week 2\\Student Feedback Sheets\\2WKL4

No	0.0418	1			
			1	OOD	01/08/2017 14:56

trying to get a better grasp on previous units

Internals\\Week 2\\Student Feedback Sheets\\2WKL5

No	0.0272	1			
			1	OOD	01/08/2017 15:04

knowing how to pronounce the words

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 2\\Student Feedback Sheets\\2WKL9

No	0.0068	1			
			1	OOD	01/08/2017 15:47

To keep up

Internals\\Week 3\\Student Feedback Sheets\\3WKL4

No	0.0340	1			
			1	OOD	01/08/2017 16:33

I am hoping we can cover a good

Internals\\Week 3\\Student Feedback Sheets\\3WKL7

No	0.0397	2
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1	OOD	03/08/2017 15:50
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improve my general pronunciation and fluency.

2	OOD	03/08/2017 15:52
---	-----	------------------

general skills.

Internals\\Week 3\\Student Feedback Sheets\\3WKL8

No	0.0534	2
----	--------	---

1	OOD	03/08/2017 16:09
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Goals are still just be able to say words right.

2	OOD	05/08/2017 12:56
---	-----	------------------

Pronunciation

Internals\\Week 3\\Student Feedback Sheets\\3WKL9

No	0.0163	2
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1	OOD	05/08/2017 13:01
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pronunciations

2	OOD	05/08/2017 13:03
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To keep improving

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 4\\Student Feedback Sheets\\4WKL9

No	0.0226	3
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1	OOD	05/08/2017 13:09
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To keep up

2	OOD	05/08/2017 13:09
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Pronunciation.

3	OOD	05/08/2017 13:10
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Pronunciation

Internals\\Week 5\\Student Feedback Sheets\\5WKL8

No	0.0133	1			
			1	OOD	05/08/2017 13:13

Pronunciation

Internals\\Week 5\\Student Feedback Sheets\\5WKL9

No	0.0333	2			
			1	OOD	05/08/2017 13:16

To understand better the pronunciation rules

			2	OOD	05/08/2017 13:23
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I will try to prevent attrition!

OB2: Object/Goal - strategies and transferable skills

26/10/2017 12:58

Coding Summary By Node

What tensions and contradictions emerge in a BL course for ab initio language learners
26/10/2017 12:58

Aggregate	Classification	Coverage	Number	Reference	Coded By	Modified On
			Of Coding	Number	Initials	
			References			

Node

Nodes\\Component of activity\\OB2

Document

Internals\\Week 1\\Student Feedback Sheets\\1WKL1

No	0.0510	2			
			1	OOD	11/07/2017 14:56

It would help a lot for pronunciation.

2 OOD 11/07/2017 15:00

I would like to see a printed dialog of maybe 10-15 sentences

Internals\\Week 1\\Student Feedback Sheets\\1WKL2

No 0.0782 4

1 OOD 18/07/2017 12:08

I'm hoping with practice it won't be as difficult to form the words and phrases.

2 OOD 18/07/2017 12:13

the words in a way that I could remember to say them

3 OOD 18/07/2017 12:16

Well I worked a little bit a head while I could.

4 OOD 18/07/2017 12:25

I'm hoping the soundcloud recordings can help me with this.

Aggregate	Classification	Coverage	Number	Reference	Coded By	Modified On
			Of Coding	Number	Initials	
			References			

Internals\\Week 1\\Student Feedback Sheets\\1WKL8

No 0.0548 1

1 OOD 18/07/2017 13:06

I just need to get the pronunciation down so I can remember the words.

Internals\\Week 1\\Student Feedback Sheets\\1WKL9

No 0.0395 2

1 OOD 18/07/2017 13:07

and be able to do the chunked learning

2 OOD 18/07/2017 13:12

Just surviving at this point, and being ready for class.

Internals\\Week 2\\Student Feedback Sheets\\2WK10

No 0.0604 1

1 OOD 01/08/2017 13:35

I'm working to get more comfortable with quicker and more fluid responses

Internals\\Week 2\\Student Feedback Sheets\\2WKL1

No 0.0467 1

1 OOD 01/08/2017 13:44

I need more work with uruh and knowing when the sounds change

Internals\\Week 2\\Student Feedback Sheets\\2WKL2

No 0.0560 3

1 OOD 01/08/2017 13:48

Another goal is to get over the fact that I'm talking in another language to someone

2 OOD 01/08/2017 13:49

I need to not let the nerves get to me.

3 OOD 01/08/2017 14:00

I'm hoping to be more prepared for next week.

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 2\\Student Feedback Sheets\\2WKL4

No 0.0359 1

1 OOD 01/08/2017 14:54

various rules of sound changes with regards to grammar down.

Internals\\Week 2\\Student Feedback Sheets\\2WKL8

No 0.0428 1

1 OOD 01/08/2017 15:20

as we discuss them to get some feeling of their placement.

Internals\\Week 3\\Student Feedback Sheets\\3WKL10

No 0.0236 1

1 OOD 01/08/2017 15:49

get comfortable interacting in class

Internals\\Week 3\\Student Feedback Sheets\\3WKL4

No 0.1915 4

1 OOD 01/08/2017 16:15

Understanding the grammar more extensively

2 OOD 01/08/2017 16:16

Since we were beginning to use more complex

sentences, understanding how multiple clauses can fit together and how ideas can be expressed in

3 OOD 01/08/2017 16:32

in order to make

4 OOD 01/08/2017 16:33

I have been trying to use the Duolingo course more frequently,

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 3\\Student Feedback Sheets\\3WKL8

No _____ 0.0144 1 _____

1 OOD 05/08/2017 12:56

word recollection

Internals\\Week 3\\Student Feedback Sheets\\3WKL9

No _____ 0.0195 1 _____

1 OOD 05/08/2017 13:01

looked up 'tricks' for pronunciation

Internals\\Week 4\\Student Feedback Sheets\\4WKL9

No _____ 0.0256 1 _____

1 OOD 05/08/2017 13:09

And getting the vocabulary out of my mouth

Internals\\Week 5\\Student Feedback Sheets\\5WKL9

No _____ 0.0402 1 _____

1 OOD 05/08/2017 13:17

I also use English or French words to remind myself of the sounds that Irish spellings makes.

OB3: Set/ define goal/ objectives

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Node

Nodes\\Component of activity\\OB3

Document

Internals\\Week 1\\Student Feedback Sheets\\1WKL1

No _____ 0.0067 1 _____

1 OOD 11/07/2017 14:52

Pronunciation

Internals\\Week 1\\Student Feedback Sheets\\1WKL2

No 0.0288 1

1 OOD 18/07/2017 12:10

I want to practice the sheets that we got this week and continue to use the Duolingo app

Internals\\Week 1\\Student Feedback Sheets\\1WKL4

No 0.0534 1

1 OOD 18/07/2017 12:33

I still need to solidify my understanding of the orthography to make things easier in the future.

Internals\\Week 1\\Student Feedback Sheets\\1WKL5

No 0.1004 2

1 OOD 18/07/2017 12:41

get some confidence with very basic conversation

2 OOD 18/07/2017 12:51

so I don't really plan on focusing on the pronunciation directly right now.

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 1\\Student Feedback Sheets\\1WKL7

No 0.1228 2

1 OOD 18/07/2017 12:53

Goals: To be able to have a basic conversation, learn vocabulary words, become accustomed to the basic sentence structure.

2 OOD 18/07/2017 13:00

I have been trying to memorize the spelling rules so that I can sound out new words on Duolingo and work out how spoken words might be spelled.

Internals\\Week 1\\Student Feedback Sheets\\1WKL8

No 0.0434 1

1 OOD 18/07/2017 13:03

to try to get the pronunciation based on spelling correct

Internals\\Week 2\\Student Feedback Sheets\\2WKL1

No 0.0666 1

1 OOD 01/08/2017 13:44

I'll be working more with the Duolingo course and re-reading my paper course materials.

Internals\\Week 2\\Student Feedback Sheets\\2WKL2

No 0.0334 2

1 OOD 01/08/2017 13:48

Goal wise, I want to get caught up with everyone

2 OOD 01/08/2017 13:55

This week focused on likes, dislikes and our families.

Internals\\Week 2\\Student Feedback Sheets\\2WKL4

No 0.0562 2

1 OOD 01/08/2017 14:57

the grammar is implemented in the main class

2 OOD 01/08/2017 14:57

Rules regarding lenition and eclipsis

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 2\\Student Feedback Sheets\\2WKL5

No 0.0986 2

1 OOD 01/08/2017 15:05

get some confidence with very basic conversation

2 OOD 01/08/2017 15:07

I don't

Internals\\Week 2\\Student Feedback Sheets\\2WKL6

No 0.0630 1

1 OOD 01/08/2017 15:13

I would like to improve and understand more about the lenition and eclipses.

Internals\\Week 2\\Student Feedback Sheets\\2WKL7

No 0.0843 1

1 OOD 01/08/2017 15:14

My goals were to become comfortable asking and answering questions about where I live, what I do, and what I like.

Internals\\Week 2\\Student Feedback Sheets\\2WKL8

No 0.0719 2

1 OOD 01/08/2017 15:20

pronunciation

2 OOD 01/08/2017 15:21

I really just want to get pronunciation, I want to be able to say the words better.

Internals\\Week 2\\Student Feedback Sheets\\2WKL9

No 0.1728 3

1 OOD 01/08/2017 15:23

Pronunciation, removing intonation, and remembering word order in our questions, then applying word order rules to individual replies.

2 OOD 01/08/2017 15:24

fuller explanations of lenition and eclipses

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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3 OOD 01/08/2017 15:48

I've been trying to understand the lenition and eclipses, as noted above.

Internals\\Week 3\\Student Feedback Sheets\\3WKL2

No 0.0401 3

1	OOD	01/08/2017 15:57
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our families and what they like.

2	OOD	01/08/2017 16:03
---	-----	------------------

fada's in the right places

3	OOD	01/08/2017 16:09
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will need to review it before week four starts on Tuesday.

Internals\\Week 3\\Student Feedback Sheets\\3WKL4

No 0.0865 2

1	OOD	01/08/2017 16:15
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continuing to be mindful of eclipse and lenition

2	OOD	01/08/2017 16:31
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I want to solidify my understanding of the lexicon and grammar up to this point

Internals\\Week 3\\Student Feedback Sheets\\3WKL6

No 0.1785 3

1	OOD	01/08/2017 16:34
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My challenges during the week 2 were related to the family members names and pronunciation of them

2	OOD	03/08/2017 15:37
---	-----	------------------

the words pronunciation in order to try to get used to the sound of the family members names.

3	OOD	03/08/2017 15:43
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I still would like to improve and put in practice easily the lenition and eclipses.

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 3\\Student Feedback Sheets\\3WKL7

No 0.0456 2

1 OOD 03/08/2017 15:50

Be able to speak clearly about my household,

2 OOD 03/08/2017 15:52

the household vocabulary

Internals\\Week 3\\Student Feedback Sheets\\3WKL8

No 0.0237 1

1 OOD 05/08/2017 12:54

to use full sentence answers

Internals\\Week 3\\Student Feedback Sheets\\3WKL9

No 0.0126 1

1 OOD 05/08/2017 13:03

Listening comprehension.

Internals\\Week 4\\Student Feedback Sheets\\4WKL9

No 0.0381 1

1 OOD 05/08/2017 13:10

and the spelling changes that happen with lenition and eclipses

Internals\\Week 5\\Student Feedback Sheets\\5WKL8

No 0.0213 1

1 OOD 05/08/2017 13:14

word order in sentences.

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\Week 5\Student Feedback Sheets\5WKL9

No		0.0402	1	1	OOD	05/08/2017 13:17
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to become more familiar with the prepositional pronouns that we started to use more and more

OU1: Outcome - Language

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Node

Nodes\Component of activity\OU1

Document

Internals\Week 1\Student Feedback Sheets\1WKL1

No		0.0149	1	1	OOD	11/07/2017 14:52
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I'm starting to hear patterns

Internals\Week 1\Student Feedback Sheets\1WKL5

No		0.0860	2	1	OOD	18/07/2017 12:42
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I have not really overcome the challenge above yet.

				2	OOD	18/07/2017 12:50
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Still uncertain about pronunciation from reading text.

Internals\\Week 1\\Student Feedback Sheets\\1WKL7

No 0.0394 1

1 OOD 18/07/2017 12:56

I was able to learn and improve my pronunciation of the basic conversational phrases.

Internals\\Week 1\\Student Feedback Sheets\\1WKL8

No 0.0982 3

1 OOD 18/07/2017 13:02

but I understand it when I hear it now.

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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2 OOD 18/07/2017 13:04

I can recognize other phrases when they're spoken to me.

3 OOD 18/07/2017 13:05

I don't trust my pronunciation

Internals\\Week 2\\Student Feedback Sheets\\2WK10

No 0.0737 2

1 OOD 01/08/2017 13:36

Slightly more fluid conversations

2 OOD 01/08/2017 13:37

I haven't figured out when to use direct objects or not.

Internals\\Week 2\\Student Feedback Sheets\\2WKL2

No 0.0537 2

1 OOD 01/08/2017 13:46

I missed a good bit of the pronunciations for the family and personal numbers documents.

2 OOD 01/08/2017 14:00

it gave me a chance to really go over the personal numbers and family terms.

Internals\\Week 2\\Student Feedback Sheets\\2WKL5

No 0.0328 1

1 OOD 01/08/2017 15:06

Achieve a very basic conversational level

Internals\\Week 2\\Student Feedback Sheets\\2WKL6

No 0.0323 1

1 OOD 01/08/2017 15:11

I know basic phrases, a bunch of words,

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 2\\Student Feedback Sheets\\2WKL7

No 0.0547 1

1 OOD 01/08/2017 15:15

I have generally been able to use these phrases and remember them quickly.

Internals\\Week 2\\Student Feedback Sheets\\2WKL8

No 0.0370 1

1 OOD 01/08/2017 15:19

I'm still having trouble working out pronunciation

Internals\\Week 3\\Student Feedback Sheets\\3WKL10

No 0.0721 2

1 OOD 01/08/2017 15:51

I struggle to understand the sentence structure and expressions.

2 OOD 01/08/2017 15:54

To work to express myself and understand others.

Internals\\Week 3\\Student Feedback Sheets\\3WKL2

No 0.0181 1

1 OOD 01/08/2017 16:08

but I did complete the present tense unit on Duolingo

Internals\\Week 3\\Student Feedback Sheets\\3WKL6

No 0.0439 1

1 OOD 03/08/2017 15:38

can understand basic words and phrases from TV programs and radio.

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 3\\Student Feedback Sheets\\3WKL7

No 0.0185 1

1 OOD 03/08/2017 15:53

and talking about my family.

Internals\\Week 3\\Student Feedback Sheets\\3WKL9

No 0.0242 1

1 OOD 05/08/2017 13:01

The questions of word order as solidifying and

Internals\\Week 5\\Student Feedback Sheets\\5WKL8

No	0.0293	1			
			1	OOD	05/08/2017 13:12

I don't know how to say the words

Internals\\Week 5\\Student Feedback Sheets\\5WKL9

No	0.0411	2			
			1	OOD	05/08/2017 13:19

Lenition and eclipsing will never be my friends.

			2	OOD	05/08/2017 13:19
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Pronunciation in Irish will never be my friend.

OU2: Outcomes - Strategies and transferable skills

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By	Modified On
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Node

Nodes\\Component of activity\\OU2 Document

Internals\\Week 1\\Student Feedback Sheets\\1WKL2

No	0.0494	1			
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1			OOD	18/07/2017	17:18
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It did give me an opportunity to absorb the information before the fall semester started with

Internals\\Week 1\\Student Feedback Sheets\\1WKL9

No	0.0298	1			
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1			OOD	18/07/2017	17:07
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Memory! And hearing what I understand but then forgetting how to reply.

**Internals\\Week 2\\Student
Feedback Sheets\\2WK10**

No		0.0853	1
1	OOD	01/08/2017	
I'm still struggling with some of the basic phrases and not understanding the literal meaning of			

**Internals\\Week 2\\Student
Feedback Sheets\\2WKL2**

No		0.0127	1
1	OOD	01/08/2017	
but haven't had a chance to use it much			

26/10/2017
19:30

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By	Modified On	Initials
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**Internals\\Week 2\\Student
Feedback Sheets\\2WKL4**

No		0.0245	1
1	OOD	01/08/2017	
using Duolingo and Anki when I have time.			

**Internals\\Week 2\\Student
Feedback Sheets\\2WKL6**

No		0.0863	2
1	OOD	01/08/2017	
that I still need to look at the sheet before saying them			
2	OOD	01/08/2017	
I am still looking for actions to outcome this.			

**Internals\\Week 3\\Student
Feedback Sheets\\3WKL10**

No		0.0178	1
1	OOD	01/08/2017	

but seem to be caught up now

Internals\\Week 3\\Student Feedback Sheets\\3WKL7

No 0.0384 1

1 OOD 03/08/2017
15:52

I was able to become comfortable using the new vocabulary

Internals\\Week 5\\Student Feedback Sheets\\5WKL9

No 0.0155 1

1 OOD 05/08/2017
12:22

I can see continuing to learn Irish

SU1: Subjects

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Node

Nodes\\Component of activity\\SU1

Document

Internals\\Week 1\\Student Feedback Sheets\\1WKL1

No 0.0030 3

1 OOD 11/07/2017 14:50

I

2 OOD 11/07/2017 14:51

I

3 OOD 11/07/2017 14:52

I

Internals\\Week 1\\Student Feedback Sheets\\1WKL2

No	0.0101	9			
I			1	OOD	18/07/2017 12:09
I have			2	OOD	18/07/2017 12:11
I			3	OOD	18/07/2017 12:13
I			4	OOD	18/07/2017 12:17
I			5	OOD	18/07/2017 12:17

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
I've				6	OOD	18/07/2017 12:20
I've				7	OOD	18/07/2017 12:23
I've				8	OOD	18/07/2017 12:23
I				9	OOD	18/07/2017 12:24

Internals\Week 1\Student Feedback Sheets\1WKL8

No	0.0007	1			
I			1	OOD	18/07/2017 13:03

Internals\Week 2\Student Feedback Sheets\2WK10

No	0.0033	2			
			1	OOD	01/08/2017 13:35

|

			2	OOD	01/08/2017 13:37
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|

Internals\\Week 2\\Student Feedback Sheets\\2WKL1

No	0.0030	2			
			1	OOD	01/08/2017 13:42

|

			2	OOD	01/08/2017 13:43
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Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 2\\Student Feedback Sheets\\2WKL2

No	0.0022	5			
			1	OOD	01/08/2017 13:50

|

			2	OOD	01/08/2017 13:51
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|

			3	OOD	01/08/2017 13:52
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|

			4	OOD	01/08/2017 13:56
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|

			5	OOD	01/08/2017 13:59
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|

Internals\\Week 2\\Student Feedback Sheets\\2WKL4

No		0.0041	4			
				1	OOD	01/08/2017 14:54
				2	OOD	01/08/2017 14:56
				3	OOD	01/08/2017 15:01
				4	OOD	01/08/2017 15:02

|

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Internals\\Week 2\\Student Feedback Sheets\\2WKL7

No		0.0007	1			
				1	OOD	01/08/2017 15:14

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Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 2\\Student Feedback Sheets\\2WKL8

No		0.0029	1			
				1	OOD	01/08/2017 15:19

I've

Internals\\Week 2\\Student Feedback Sheets\\2WKL9

No		0.0013	1
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1 OOD 01/08/2017 15:23

I

Internals\\Week 3\\Student Feedback Sheets\\3WKL10

No 0.0063 4

1 OOD 01/08/2017 15:49

I'm

2 OOD 01/08/2017 15:51

I

3 OOD 01/08/2017 15:55

I

4 OOD 01/08/2017 15:56

I

Internals\\Week 3\\Student Feedback Sheets\\3WKL2

No 0.0054 8

1 OOD 01/08/2017 15:58

I

2 OOD 01/08/2017 16:00

I

3 OOD 01/08/2017 16:01

I

4 OOD 01/08/2017 16:02

I

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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5 OOD 01/08/2017 16:03

I

6 OOD 01/08/2017 16:07

|

7 OOD 01/08/2017 16:11

|

8 OOD 01/08/2017 16:10

|

Internals\\Week 3\\Student Feedback Sheets\\3WKL6

No 0.0090 3

1 OOD 03/08/2017 15:36

|

2 OOD 03/08/2017 15:44

|

3 OOD 03/08/2017 15:44

by myself,

Internals\\Week 3\\Student Feedback Sheets\\3WKL7

No 0.0026 2

1 OOD 03/08/2017 15:51

|

2 OOD 03/08/2017 16:03

|

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 4\\Student Feedback Sheets\\4WKL9

No		0.0017	1			
				1	OOD	05/08/2017 13:11
I						

TO1: Tools - Cognitive and metacognitive

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Node

Nodes\\Component of activity\\TO1

Document

Internals\\Week 1\\Student Feedback Sheets\\1WKL4

No		0.0075	1			
				1	OOD	18/07/2017 12:33
Speakapps site						

Internals\\Week 1\\Student Feedback Sheets\\1WKL5

No		0.0064	1			
				1	OOD	18/07/2017 12:51
duolingo						

Internals\\Week 1\\Student Feedback Sheets\\1WKL9

No		0.1312	2			
				1	OOD	18/07/2017 13:14
how to make links to words I know in French, Spanish, German (like freagh, to answer, like the German word 'frage'-question). Cé (où), Cá (changes, but où/quoi), Conas (comment). Spanish: queso; English (siucra, cáca...), some Italian is in						
				2	OOD	18/07/2017 13:15
making links to other languages I know,						

Internals\\Week 3\\Student Feedback Sheets\\3WKL10

No	Coverage	Number	Reference	Coded By	Modified On
	0.0083	1			
			1	OOD	01/08/2017 15:52
various apps					

Reports\\Coding Summary By Node Report

Page 1 of 2

26/10/2017 13:03

Aggregate	Classification	Coverage	Number	Reference	Coded By	Modified On
			Of Coding	Number	Initials	
			References			

Internals\\Week 3\\Student Feedback Sheets\\3WKL2

No	Coverage	Number	Reference	Coded By	Modified On
	0.0075	1			
			1	OOD	01/08/2017 16:04
the Focllir.ie website					

TO2: Tools - Tools - Technology (Apps, devices, online resources)

Aggregate	Classification	Coverage	Number	Reference	Coded By	Modified On
			Of Coding	Number	Initials	
			References			

Node

Nodes\\Component of activity\\TO2

Document

Internals\\Week 1\\Student Feedback Sheets\\1WKL1

No	Coverage	Number	Reference	Coded By	Modified On
	0.0108	1			
			1	OOD	11/07/2017 14:51
Duolingo sound bytes					

Internals\\Week 1\\Student Feedback Sheets\\1WKL2

No	Coverage	Number	Reference	Coded By	Modified On
	0.0235	6			
			1	OOD	18/07/2017 12:10
use the Duolingo app					
			2	OOD	18/07/2017 12:11

Duolingo

3 OOD 18/07/2017 12:14

The Abair website

4 OOD 18/07/2017 12:14

Duolingo

5 OOD 18/07/2017 12:17

Duolingo

6 OOD 18/07/2017 12:19

Duolingo

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 1\\Student Feedback Sheets\\1WKL4

No 0.0394 6

1 OOD 18/07/2017 12:26

Duolingo

2 OOD 18/07/2017 12:27

abair website

3 OOD 18/07/2017 12:28

Duolingo course

4 OOD 18/07/2017 12:30

Duolingo

5 OOD 18/07/2017 12:33

Duolingo

6 OOD 18/07/2017 12:35

The Duolingo course

Internals\\Week 1\\Student Feedback Sheets\\1WKL7

No	Coverage	Number	Reference	Coded By	Modified On
	0.0305	5			
		1	OOD		18/07/2017 12:55
vocabulary on Duolingo					
		2	OOD		18/07/2017 12:56
Through Duolingo					
		3	OOD		18/07/2017 12:57
On Duolingo					
		4	OOD		18/07/2017 13:00
Duolingo					
		5	OOD		18/07/2017 13:01
Duolingo					

Aggregate	Classification	Coverage	Number	Reference	Coded By	Modified On
			Of Coding	Number	Initials	
			References			

Internals\\Week 1\\Student Feedback Sheets\\1WKL8

No	Coverage	Number	Reference	Coded By	Modified On
	0.0060	1			
		1	OOD		18/07/2017 13:05
duolingo					

Internals\\Week 1\\Student Feedback Sheets\\1WKL9

No	Coverage	Number	Reference	Coded By	Modified On
	0.0050	1			
		1	OOD		18/07/2017 13:11
Anki cards					

Internals\\Week 2\\Student Feedback Sheets\\2WK10

No	Coverage	Number	Reference	Coded By	Modified On
	0.0149	2			
			1	OOD	01/08/2017 13:38
language apps					
			2	OOD	01/08/2017 13:38
Mango					

Internals\\Week 2\\Student Feedback Sheets\\2WKL1

No	Coverage	Number	Reference	Coded By	Modified On
	0.0199	2			
			1	OOD	01/08/2017 13:42
Duolingo					
			2	OOD	01/08/2017 13:43
the DuoLingo work					

Internals\\Week 2\\Student Feedback Sheets\\2WKL2

No	Coverage	Number	Reference	Coded By	Modified On
	0.0055	1			
			1	OOD	01/08/2017 13:53
the AnkiDroid app					

Aggregate	Classification	Coverage	Number	Reference	Coded By	Modified On
			Of Coding	Number	Initials	
			References			

Internals\\Week 2\\Student Feedback Sheets\\2WKL4

No	Coverage	Number	Reference	Coded By	Modified On
	0.0293	4			
			1	OOD	01/08/2017 14:55
the Duolingo course					
			2	OOD	01/08/2017 14:56
Duolingo course					
			3	OOD	01/08/2017 15:01

Duolingo

4 OOD 01/08/2017 15:01

Anki

Internals\\Week 2\\Student Feedback Sheets\\2WKL5

No 0.0064 1

1 OOD 01/08/2017 15:08

duolingo

Internals\\Week 2\\Student Feedback Sheets\\2WKL7

No 0.0059 2

1 OOD 01/08/2017 15:14

Anki

2 OOD 01/08/2017 15:17

Anki

Internals\\Week 3\\Student Feedback Sheets\\3WKL10

No 0.0427 2

1 OOD 01/08/2017 15:52

other Irish learning programs

2 OOD 01/08/2017 15:55

Google's Irish to English translation.

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 3\\Student Feedback Sheets\\3WKL2

No 0.0150 3

1 OOD 01/08/2017 16:04

and the Abair.ie

	2	OOD	01/08/2017 16:09
Duolingo			
	3	OOD	01/08/2017 16:12
my Duolingo streak			

Internals\\Week 3\\Student Feedback Sheets\\3WKL4

No	0.0105	1			
			1	OOD	01/08/2017 16:32
the Duolingo course					

Internals\\Week 3\\Student Feedback Sheets\\3WKL6

No	0.0439	4			
			1	OOD	03/08/2017 15:36
the Abair page to					
			2	OOD	03/08/2017 15:43
Duolingo					
			3	OOD	03/08/2017 15:43
Internet,					
			4	OOD	03/08/2017 15:47
by the support of the Internet.					

Internals\\Week 3\\Student Feedback Sheets\\3WKL7

No	0.0185	4			
			1	OOD	03/08/2017 15:51
Anki					
			2	OOD	03/08/2017 15:52
Duolingo					

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
				3	OOD	03/08/2017 15:54
Duolingo						
				4	OOD	03/08/2017 16:04
Abair						

Internals\\Week 3\\Student Feedback Sheets\\3WKL9

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
No		0.0031	1			
				1	OOD	05/08/2017 13:03
Oppia.						

Internals\\Week 5\\Student Feedback Sheets\\5WKL8

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
No		0.0195	1			
				1	OOD	05/08/2017 13:14
10 duolingo sections						

Internals\\Week 5\\Student Feedback Sheets\\5WKL9

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
No		0.0038	1			
				1	OOD	05/08/2017 13:16
Duolingo						

NVivo 11 Coding Summary by Node/Code report: Group 3

L5SUOU1: Student reflection on learning outcomes

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Node

Nodes\\Contradictions\\Level 5\\L5SUOU1

Document

Internals\\Week 1\\Student Feedback Sheets\\1WKL2

No	Coverage	Number	Reference	Coded By	Modified On
	0.1984	8			
		1	OOD		18/07/2017 12:07
It's like my tongue won't move in certain ways to arrangement these sounds.					
		2	OOD		18/07/2017 12:09
The sentence structure is taking a little to get used to as well.					
		3	OOD		18/07/2017 12:15
What I think helps the most though is the first 15min of class where we got up to talk to other people					
		4	OOD		18/07/2017 12:19
It's not that I'm uncertain about anything, but it's all just a lot to process after the first week					
		5	OOD		18/07/2017 12:21
it's been a little overwhelming					
		6	OOD		18/07/2017 12:21
But I'm really looking forward to this course					
		7	OOD		18/07/2017 12:23
It made me realize that actually saying it out loud is what I need more practice at					
		8	OOD		18/07/2017 12:24
Everything is great so far! I think the main thing that I'm having problems with is the pronunciation.					

Aggregate	Classification	Coverage	Number	Reference	Coded By	Modified On
			Of Coding	Number	Initials	
References						

Internals\\Week 1\\Student Feedback Sheets\\1WKL4

No	Coverage	Number	Reference	Coded By	Modified On
	0.2294	5			
		1	OOD		18/07/2017 12:31
I feel that I am getting a good grasp overall thanks to classroom exposure					
		2	OOD		18/07/2017 12:32

In particular, the fact that the classroom subjects tend to at least partially match up with the Duolingo course track is of great use.

3 OOD 18/07/2017 12:34

I've been using nothing from outside the course recommendations while studying.

4 OOD 18/07/2017 12:34

The course has a good pace and manages to teach a good amount despite only meeting twice a week.

5 OOD 18/07/2017 12:35

I have no particular dislikes so far.

Internals\\Week 1\\Student Feedback Sheets\\1WKL5

No 0.2090 4

1 OOD 18/07/2017 12:41

knowing how to pronounce the words

2 OOD 18/07/2017 12:42

has been very helpful in achieving the goal above

3 OOD 18/07/2017 12:50

But I think that once I learn the words from speaking them I will recognize them in the text and that won't be a problem anymore

4 OOD 18/07/2017 12:52

Very good class because of how interactive it is.

Internals\\Week 1\\Student Feedback Sheets\\1WKL7

No 0.2786 6

1 OOD 18/07/2017 12:52

Challenges: Remembering basic conversational phrases and pronouncing them correctly

2 OOD 18/07/2017 12:57

One of the biggest challenges for me so far has been mastering the Irish orthography

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
				3	OOD	18/07/2017 12:58

figure out how a word that I see written would be pronounced.

4 OOD 18/07/2017 13:00

I am not quite yet able to have a conversation without looking at the paper to remind myself which phrase to respond with.

5 OOD 18/07/2017 13:00

Repeated practice in class has helped me respond faster in conversations.

6 OOD 18/07/2017 13:01

My impression of the course so far is generally positive. The class sessions are structured well, with a good balance between time practicing and time learning new information.

Internals\\Week 1\\Student Feedback Sheets\\1WKL8

No 0.1934 4

1 OOD 18/07/2017 13:02

I'm still struggling with pronunciation and immediate recall,

2 OOD 18/07/2017 13:04

I can say hello successfully (I think)

3 OOD 18/07/2017 13:06

My biggest struggle is pronunciation, which is really what's hindering my ability to remember stuff.

4 OOD 18/07/2017 13:06

The class is great in terms of speed and subject matter

Internals\\Week 1\\Student Feedback Sheets\\1WKL9

No 0.1324 7

1 OOD 18/07/2017 13:07

and I did pretty well

2 OOD 18/07/2017 13:09

He got over his frustration and decided to commit, find things to help himself, and he overtook me J

3 OOD 18/07/2017 13:12

Not ideal outcomes...

4 OOD 18/07/2017 13:12

The verbs are giving me nightmares, and the prep pronouns.

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
				5	OOD	18/07/2017 13:16
they're very helpful.						
				6	OOD	18/07/2017 13:16
Like my students, more vocab = more problems = more headaches.						
				7	OOD	18/07/2017 13:19
I'm just another student. Sigh.						

Internals\Week 2\Student Feedback Sheets\2WK10

No	Coverage	Number	Reference Number	Coded By Initials	Modified On
	0.0737	2	1	OOD	01/08/2017 13:36
I'm still uncertain about questions and use of the word "go"					
			2	OOD	01/08/2017 13:37
Ta and bí are still confusing					

Internals\Week 2\Student Feedback Sheets\2WKL1

No	Coverage	Number	Reference Number	Coded By Initials	Modified On
	0.0719	2	1	OOD	01/08/2017 13:43
But it's hard to cram everything in and still remember.					
			2	OOD	01/08/2017 13:43
but I'm not sure how much I remember ;)					

Internals\Week 2\Student Feedback Sheets\2WKL2

No	Coverage	Number	Reference Number	Coded By Initials	Modified On
	0.2812	9	1	OOD	01/08/2017 13:47
I felt a little behind on Friday because of this.					
			2	OOD	01/08/2017 13:48
It makes me really nervous when I don't know what to say or if I mess something up. Then everything gets thrown off. So it makes it a little difficult to talk to other people in the class since I was so unsure of words and phrases on Friday.					

3 OOD 01/08/2017 13:51
Focloir.ie seems to be my favorite

4 OOD 01/08/2017 13:56
I feel more confident speaking about my background and where I am from.

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
			5	OOD	01/08/2017 13:57	Doing the listening exercises from the book, is really helping me to pick the familiar words out of sentence and solving the words I don't know with context clues.
			6	OOD	01/08/2017 13:58	I really get a lot out of the class time so it has been a struggle this week trying to learn these words and phrases on my own.
			7	OOD	01/08/2017 14:16	Is maith liom e!
			8	OOD	01/08/2017 14:17	The classes are a lot of fun and the songs we listened to in class on Friday were very interesting!
			9	OOD	01/08/2017 14:18	I just wish I had more time to devote to it all!

Internals\Week 2\Student Feedback Sheets\2WKL4

No 0.2148 3

1 OOD 01/08/2017 14:57
I have been making progress, and though I think a lot of things are still uncertain currently I believe

2 OOD 01/08/2017 14:58
The rules themselves are explained fine, but having more

3 OOD 01/08/2017 15:04
I think the course is moving at a good pace and has been covering useful topics. I'm not having any

Internals\Week 2\Student Feedback Sheets\2WKL5

No 0.3255 4

1 OOD 01/08/2017 15:05

The large amount of time spent during class speaking with each other has been very helpful in achieving the goal above. I have not really overcome the challenge above yet.

2 OOD 01/08/2017 15:07

Still uncertain about pronunciation from reading text

3 OOD 01/08/2017 15:07

But I think that once I learn the words from

4 OOD 01/08/2017 15:08

Very good class because of how interactive it is.

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\Week 2\Student Feedback Sheets\2WKL6

No 0.1958 4

1 OOD 01/08/2017 15:10

I've observed improvements.

2 OOD 01/08/2017 15:12

but I can observe that I start to get used to them.

3 OOD 01/08/2017 15:13

They are things that I still could not get very well.

4 OOD 01/08/2017 15:13

It has been a challenge, particularly with the family members words. But I am enjoying the experience.

Internals\Week 2\Student Feedback Sheets\2WKL7

No 0.2834 4

1 OOD 01/08/2017 15:16

I think I am learning certain words faster than the rules behind formulating a question or response.

2 OOD 01/08/2017 15:16

Pronouncing new words is still a challenge.

3 OOD 01/08/2017 15:17

Conversations in class have been good for learning which phrases to use when, and how to pronounce them.

I like the way new words and phrases are taught in class. We are able to practice pronouncing everything and using words with context

Internals\\Week 2\\Student Feedback Sheets\\2WKL8

No 0.2827 3

1 OOD 01/08/2017 15:19

My memory of phrases is improving but getting the words to fit in my mouth correctly is a bit of a struggle.

2 OOD 01/08/2017 15:21

I can have a remedial (like 2 year old style) conversation about where I'm from, with a little help from the handout.

3 OOD 01/08/2017 15:22

I really like the course, I feel like we're moving at a reasonable speed. I think the biggest problems I'm having are ones that I just need to practice on my own.

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 2\\Student Feedback Sheets\\2WKL9

No 0.2245 2

1 OOD 01/08/2017 15:24

The eclipses came a little easier since I was able to pair voiced/voiceless consonants for eclipses. But I'm still not sure when I should implement eclipses.

2 OOD 01/08/2017 15:48

The phonological rules are driving me crazy. I dislike mispronouncing words so I do what I can to approximate and get as close as possible to native-like pronunciation.

Internals\\Week 3\\Student Feedback Sheets\\3WKL10

No 0.1002 2

1 OOD 01/08/2017 15:54

I'm not comfortable not knowing the words and expressions and am still training my brain to memorize and find mnemonics.

2 OOD 01/08/2017 15:56

I like the instructor's enthusiasm.

Internals\\Week 3\\Student Feedback Sheets\\3WKL2

No 0.2842 6

1 OOD 01/08/2017 15:58

I'm starting to understand the sentence structure a little more. It was definitely strange at first but again it's all starting to come together.

2 OOD 01/08/2017 15:59

A lot of challenging new words and trying to pronounce them.

3 OOD 01/08/2017 16:06

The sentence structure is on the up-and-up! I'm feeling more comfortable with the vocabulary I'm saying. I'm not sure if all the speaking practice is training my tongue and mouth to form the words and sounds, or if I'm just getting used to hearing the way that I say it and think it's correct.

4 OOD 01/08/2017 16:06

I think I'm starting to get the hang of the verb conjugations.

5 OOD 01/08/2017 16:09

I hope I remember the section

6 OOD 01/08/2017 16:14

Overall everything is going well. As I've said in previous weeks, I wish I had more time to devote to this. I need to learn to relax and trust what I'm saying. I tend to over think what word comes next which just throws me off.

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 3\\Student Feedback Sheets\\3WKL4

No 0.1030 2

1 OOD 01/08/2017 16:31

I feel that I have been starting to become more comfortable in the language to a certain extent,

2 OOD 01/08/2017 16:33

The course has been moving at a good enough pace for me.

Internals\\Week 3\\Student Feedback Sheets\\3WKL6

No 0.3369 5

1 OOD 03/08/2017 15:37

I've observed improvements.

2 OOD 03/08/2017 15:40

I started to be more independent of the sheets to say basic sentences.

3 OOD 03/08/2017 15:47

Despite re-reading explanations in Duolingo and Internet, I still would like to improve and put in practice easily the lenition and eclipses

4 OOD 03/08/2017 15:44

And I am usually uncertain about how to say some words related to the family members..

5 OOD 03/08/2017 15:47

It has been a challenge, particularly with the family members words. But I am enjoying the experience and it seems now that for the regular verbs conjugation I will not have too much difficulties.

Internals\\Week 3\\Student Feedback Sheets\\3WKL7

No 0.2701 3

1 OOD 03/08/2017 15:53

Certain grammatical constructs are challenging. It often takes me a while to remember which words I need to change in order to conjugate certain phrases I already know, for example conjugating "is maith leom X" to the third person.

2 OOD 03/08/2017 16:00

This also was good practice with pronunciation.

3 OOD 03/08/2017 16:06

The course is going great! I am learning a lot and I feel like I am improving my skills.

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 3\\Student Feedback Sheets\\3WKL8

No 0.2843 3

1 OOD 03/08/2017 16:09

It's getting a little easier! I'm still having some pronunciation trouble and word recollection trouble but I just need to practice more.

2 OOD 05/08/2017 12:56

it's starting to become a little easier to recall things, and its especially become easier to understand things

3 OOD 05/08/2017 12:59

it's great, I wish i had a better handle on the language but i think I'm getting there.

Internals\\Week 3\\Student Feedback Sheets\\3WKL9

No 0.2735 4

1 OOD 05/08/2017 13:00

I'm feeling better about how and why of lenition and eclipses but I'm not sure on the pronunciations.

2 OOD 05/08/2017 13:02

I'm also struggling with words that are missing in my replies bc I thought I knew what was what (that I understood what I needed to do and in fact, did not).

3 OOD 05/08/2017 13:03

I'm happy that reading and writing are possible at this point even though they aren't a focus of the course.

4 OOD 05/08/2017 13:07

I have a feeling that verb pronunciations are going to be challenging this coming week especially as we explain more about our live and our families.

Internals\\Week 4\\Student Feedback Sheets\\4WKL9

No 0.2464 2

1 OOD 05/08/2017 13:08

I think that this 'mixed message' between the online and class work is what caused some of the questions that were asked in class that went beyond speaking and listening.

2 OOD 05/08/2017 13:11

We have questions related to what we find in Duolingo that aren't related to what we do in class (except for thematic vocabulary which also happen to be verbs, for example), which causes me personally to want to ask questions about

Internals\\Week 5\\Student Feedback Sheets\\5WKL8

No 0.2602 3

1 OOD 05/08/2017 13:12

I'm getting better, but it's a constant struggle.

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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2 OOD 05/08/2017 13:13

I'm starting to build a mental lexicon, which is great. I know some words off the top of my head so things are getting slightly easier.

3 OOD 05/08/2017 13:14

I like how much we are encouraged to talk to each other. I struggle through it but it is super helpful.

Internals\\Week 5\\Student Feedback Sheets\\5WKL9

No 0.1112 4

1 OOD 05/08/2017 13:15

It's amazing how much can be done in one hour and consequently, how lost one can be during the next class.

2 OOD 05/08/2017 13:19

I am surprised at how much I learned

3	OOD	05/08/2017 13:23
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I never did spread it out over the week (what a bad student!).

4	OOD	05/08/2017 13:23
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In any case, thank you for an interesting experience

L5SUAR1: Student Reflection on used Artefact

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Node

Nodes\\Contradictions\\Level 5\\L5SUAR1

Document

Internals\\Week 1\\Student Feedback Sheets\\1WKL1

No	0.1479	3
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1	OOD	11/07/2017 14:55
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I would like the Duolingo material to have sound bytes for all of the material on its site.

2	OOD	11/07/2017 14:56
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but it's hard to type in all the words with the accents

3	OOD	11/07/2017 14:59
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And listening to Irish language internet is not the same because I have no clue what they are saying

Internals\\Week 1\\Student Feedback Sheets\\1WKL2

No	0.0805	3
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1	OOD	18/07/2017 12:14
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The Abair website did help a lot with this as did the soundcloud recordings.

2	OOD	18/07/2017 12:14
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Duolingo has been a great resource and has also been fun to use

3	OOD	18/07/2017 12:19
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I feel like I'm starting to recognize the words a bit when I'm reading through the book pages and Duolingo.

Internals\\Week 1\\Student Feedback Sheets\\1WKL4

No 0.1884 5

1 OOD 18/07/2017 12:26

Duolingo was a helpful resource since it can be used in a variety of places and times

Reports\\Coding Summary By Node Report

Page 1 of 5

26/10/2017 19:19

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
				2	OOD	18/07/2017 12:27
						but the abair website was also of great use
				3	OOD	18/07/2017 12:28
						the soundcloud files were helpful for remembering the phrases
				4	OOD	18/07/2017 12:31
						and reinforcement from Duolingo and Soundcloud.
				5	OOD	18/07/2017 12:35
						The Duolingo course itself could be improved as far as listening practice goes, but that is a different matter.

Internals\\Week 1\\Student Feedback Sheets\\1WKL7

No 0.0843 1

1 OOD 18/07/2017 13:01

has helped me become accustomed to the language quickly and is especially helpful because it keeps Irish on my mind between class periods, so I always feel ready when going to class.

Internals\\Week 1\\Student Feedback Sheets\\1WKL9

No 0.1408 3

1 OOD 18/07/2017 13:10

Nemo but I haven't worked with it.

2 OOD 18/07/2017 13:11

The Anki cards were helpful.

3 OOD 18/07/2017 13:17

The Duolingo has some odd phrasing which could be good for catching 'rote' answers, but 'I pay for the girl' sounds really bizarre, and "She eats a meal without tea." Weirdness. If these are culturally appropriate, okay, but to my ears, it's like 'I

Internals\\Week 2\\Student Feedback Sheets\\2WKL2

No 0.1042 3

1 OOD 01/08/2017 13:52

Abair.ie is also awesome

2 OOD 01/08/2017 13:54

I really like having the different resources on my phone. I don't have an excuse to not practice. I took the bus to work the other day and used Duolingo the entire 25min ride, it was great!

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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3 OOD 01/08/2017 14:17

Honestly, I'm surprised at how much I retain from the Duolingo I started working on a few weeks ago.

Internals\\Week 2\\Student Feedback Sheets\\2WKL4

No 0.0562 1

1 OOD 01/08/2017 15:03

The Anki deck

Internals\\Week 2\\Student Feedback Sheets\\2WKL9

No 0.0144 1

1 OOD 01/08/2017 15:48

The tools are useful.

Internals\\Week 3\\Student Feedback Sheets\\3WKL10

No 0.0938 2

1 OOD 01/08/2017 15:54

I've stopped using the mobile version of Duolingo. The explanations in the desktop version are helpful.

2 OOD 01/08/2017 15:57

Regular Duolingo assignments are helpful.

Internals\\Week 3\\Student Feedback Sheets\\3WKL2

No	Coverage	Number	Reference	Coded By	Modified On
	0.0514	3			
		1	OOD		01/08/2017 16:06
Or at least notice the pattern of the conjugations on Duolingo.					
		2	OOD		01/08/2017 16:11
The soundcloud recording really helped					
		3	OOD		01/08/2017 16:13
I like that it notifies me to keep practicing.					

Aggregate	Classification	Coverage	Number	Reference	Coded By	Modified On
			Of Coding	Number	Initials	
			References			

Internals\\Week 3\\Student Feedback Sheets\\3WKL4

No	Coverage	Number	Reference	Coded By	Modified On
	0.2410	3			
		1	OOD		01/08/2017 16:17
For Irish, it can quickly list the forms					
		2	OOD		01/08/2017 16:31
Hearing authentic, relatively complex speech					
		3	OOD		01/08/2017 16:32
which has been encouraged by					
having specific unit goals. In addition, I feel inspired to use it more when looking at the course					

Internals\\Week 3\\Student Feedback Sheets\\3WKL7

No	Coverage	Number	Reference	Coded By	Modified On
	0.0470	1			
		1	OOD		03/08/2017 15:54
Duolingo has helped a bit with forming grammatically correct sentences.					

Internals\\Week 3\\Student Feedback Sheets\\3WKL9

No 0.0474 2

1 OOD 05/08/2017 13:06

The material is getting more in-depth but that's to be expected.

2 OOD 05/08/2017 13:06

Duolingo sentences, really

Internals\\Week 4\\Student Feedback Sheets\\4WKL9

No 0.0966 1

1 OOD 05/08/2017 13:11

I think the biggest confusion is the class focus on speaking and listening, but the translation and reading comprehension focus (as well as listening) in Duolingo

Internals\\Week 5\\Student Feedback Sheets\\5WKL8

No 0.0985 2

1 OOD 05/08/2017 13:13

Abair.ie helps,

L5SUAR2: Student Reflection on Artefact created by the learner

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Node

Nodes\\Contradictions\\Level 5\\L5SUAR2

Document

Internals\\Week 3\\Student Feedback Sheets\\3WKL2

No 0.0339 1

1 OOD 01/08/2017 16:01

The soundcloud recording I did over the weekend helped a lot with learning the sentence structure.

Internals\\Week 3\\Student Feedback Sheets\\3WKL7

No 0.0596 1

1 OOD 03/08/2017 16:00

Writing the recorded passage about my household was good practice with sentence formation.

Internals\\Week 5\\Student Feedback Sheets\\5WKL9

No	0.0389	1			
			1	OOD	05/08/2017 13:18

so I can start mentally putting words into categories and remember what 'goes with what'.

L4: External contradictions between activity system and neighbouring activity system.

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Node

Nodes\\Contradictions\\Level 4\\L4

Document

Internals\\Week 1\\Student Feedback Sheets\\1WKL9

No	0.0403	1			
			1	OOD	18/07/2017 13:09

And then just getting the work done regularly while doing beginning of semester things for work.

Internals\\Week 2\\Student Feedback Sheets\\2WKL2

No	0.0245	1			
			1	OOD	01/08/2017 14:17

The timing is not ideal for me since I'm so busy with work and grad school.

Internals\\Week 3\\Student Feedback Sheets\\3WKL2

No	0.0891	4			
			1	OOD	01/08/2017 16:00

I had to miss class on Friday because of a retirement party but I ended up missing that because of a grant that was due.

I missed Friday

			2	OOD	01/08/2017 16:08
			3	OOD	01/08/2017 16:13

but the weekend caught up to me.

4 OOD 01/08/2017 16:14

I'm sorry for missing so much class. I'm realizing it is hard for me to get there by 4:30.

26/10/2017 18:58

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
Internals\\Week 5\\Student Feedback Sheets\\5WKL9						
No		0.0683	1			
				1	OOD	05/08/2017 13:23

The time commitment for these few weeks was not large at all and as the semester went on, I found it more and more difficult to make sure that I did the work.

L3: External contradictions between activity system and more advanced activity system

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Node

Nodes\\Contradictions\\Level 3

Document

Internals\\Week 2\\Student Feedback Sheets\\2WK10

Yes		0.0695	1			
				1	OOD	01/08/2017 13:40

I'm still not seeing a good connection between Duolingo and the in-class learning.

Internals\\Week 5\\Student Feedback Sheets\\5WKL9

Yes		0.0233	1			
				1	OOD	05/08/2017 13:15

Having missed last Friday's class, Tuesday was a bear.

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Node

Nodes\\Contradictions\\Level 2\\L2SUCO

Document

Internals\\Week 1\\Student Feedback Sheets\\1WKL1

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
No		0.0618	1	1	OOD	11/07/2017 14:58

I would also like to hear more native speaker conversations between multiple people if possible to hear different voices

Internals\\Week 1\\Student Feedback Sheets\\1WKL2

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
No		0.0684	2	1	OOD	18/07/2017 12:16

we practice speaking the few things from class during the day.

				2	OOD	18/07/2017 12:22
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to visit my family the following weekend, I was telling my mom, dad and sisters how to say different things on the Basic Irish Phrases document.

Internals\\Week 1\\Student Feedback Sheets\\1WKL9

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
No		0.0403	2	1	OOD	18/07/2017 13:09

Actually, Learner 10 was helpful.

				2	OOD	18/07/2017 13:10
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So I can ask him things now and he's more open to practicing together.

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 2\\Student Feedback Sheets\\2WK10

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
No		0.0215	1	1	OOD	01/08/2017 13:39

Instructor is enthusiastic

Internals\\Week 2\\Student Feedback Sheets\\2WKL1

No 0.2151 2

1 OOD 01/08/2017 13:45

Oisin is a terrific teacher.

2 OOD 01/08/2017 13:45

His enthusiasm for the Irish language is contagious and his class is really enjoyable. I also appreciate that he explains the literal translations so that I can get a sense of how the language is structured. (ie. Something comes "at" you vs. I have it.)

Internals\\Week 3\\Student Feedback Sheets\\3WKL10

No 0.1858 2

1 OOD 01/08/2017 15:50

I sweat and get nervous as soon as we have to stand and talk with each other.

2 OOD 01/08/2017 15:57

Although it may not help to continue to remind students that "Irish is easy" as those who are struggling may question their learning abilities since they are having difficulty with something that should be easy.

Internals\\Week 3\\Student Feedback Sheets\\3WKL2

No 0.0102 1

1 OOD 01/08/2017 16:10

made my sister listen to it.

Internals\\Week 3\\Student Feedback Sheets\\3WKL6

No 0.0355 1

1 OOD 03/08/2017 15:46

sharing the findings about Irish language with a friend

26/10/2017 19:12

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 3\\Student Feedback Sheets\\3WKL8

No 0.0696 1

1 OOD 05/08/2017 12:54

spoke Irish with other people outside of just the classroom (but only a little).

Internals\\Week 3\\Student Feedback Sheets\\3WKL9

No 0.0790 1

1 OOD 05/08/2017 13:04

Once we add native speakers to the mix, it will be hard to hear individual words, although we should be pretty good with the chunks (name, city, etc).

Internals\\Week 4\\Student Feedback Sheets\\4WKL9

No 0.0638 1

1 OOD 05/08/2017 13:10

Tom and I talk some about things we've discovered or tricks to remember and use vocabulary, pronunciation,

Internals\\Week 5\\Student Feedback Sheets\\5WKL9

No 0.0437 1

1 OOD 05/08/2017 13:16

L2SUOB1: Subject – Object (Language)

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Node

Nodes\\Contradictions\\Level 2\\L2SUOB1

Document

Internals\\Week 1\\Student Feedback Sheets\\1WKL1

No 0.0505 1

1 OOD 11/07/2017 14:48

I'm also having trouble imagining how certain words sound and the general cadence of the language.

Internals\\Week 1\\Student Feedback Sheets\\1WKL2

No 0.0671 3

Reference Number	Classification	Modified On
1	OOD	18/07/2017 12:07
I'm having difficulty with the pronunciation and sounds of the words.		
2	OOD	18/07/2017 12:24
Like I said before, my mouth just doesn't want to form the words		
3	OOD	18/07/2017 12:25
I hear you say something and when I try to mimic the word, its just off.		

Internals\\Week 1\\Student Feedback Sheets\\1WKL8

No 0.0274 1

Reference Number	Classification	Modified On
1	OOD	18/07/2017 13:05
My recollection speed is super slow		

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 2\\Student Feedback Sheets\\2WKL7

No 0.0732 1

Reference Number	Classification	Modified On
1	OOD	01/08/2017 15:16
However, sometimes I can only remember the last few words of the phrase and not the entire phrase.		

Internals\\Week 3\\Student Feedback Sheets\\3WKL2

No 0.0490 1

Reference Number	Classification	Modified On
1	OOD	01/08/2017 16:00
My dad is a production team manager at a manufacturing plant so instead of trying to pronounce machining manager, I just went with manager		

Internals\\Week 3\\Student Feedback Sheets\\3WKL8

No	0.0365	1			
			1	OOD	05/08/2017 12:59

Asking for the words to be repeated often.

Internals\\Week 3\\Student Feedback Sheets\\3WKL9

No	0.0384	1			
			1	OOD	05/08/2017 13:02

I'm grateful that present tense conjugations are rather straightforward.

Internals\\Week 4\\Student Feedback Sheets\\4WKL9

No	0.0173	1			
			1	OOD	05/08/2017 13:11

Mostly though I worked alone.

Internals\\Week 5\\Student Feedback Sheets\\5WKL8

No	0.0444	1			
			1	OOD	05/08/2017 13:13

but also I just ask for words to be repeated often

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 5\\Student Feedback Sheets\\5WKL9

No	0.1727	3			
			1	OOD	05/08/2017 13:17

I gave up trying to create an accent and focused on pronunciation, making rules for myself and using IPA to continue to remind myself of pronunciations.

			2	OOD	05/08/2017 13:19
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I do wonder how much more confident I might be if I had had more direct instruction in grammar, the use of the small words (bheigh, ar, in/i, ag), for example.

but I'm not sure how I will continue, whether with Duolingo and/or in an Irish course.

L2TOOB: Tool – Object

26/10/2017 18:53

Coding Summary By Node

What tensions and contradictions emerge in a BL course for ab initio language learners

26/10/2017 18:53

Aggregate	Classification	Coverage	Number	Reference	Coded By	Modified On
			Of Coding	Number	Initials	
			References			

Node

Nodes\\Contradictions\\Level 2\\L2TOOB

Document

Internals\\Week 1\\Student Feedback Sheets\\1WKL1

No	Coverage	Number	Reference	Coded By	Modified On
	0.0402	1	1	OOD	11/07/2017 14:57

especially the sentences to hear how the words run together (or are separate).

Internals\\Week 1\\Student Feedback Sheets\\1WKL2

No	Coverage	Number	Reference	Coded By	Modified On
	0.0524	2	1	OOD	18/07/2017 12:10

It has been a great help, especially when the little megaphone comes up.

		2	2	OOD	18/07/2017 12:18
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As soon as I saw the flyer, I actually got on Duolingo and did the first couple of units

Internals\\Week 1\\Student Feedback Sheets\\1WKL4

No	Coverage	Number	Reference	Coded By	Modified On
	0.0448	1	1	OOD	18/07/2017 12:28

for understanding the various words that were not pronounced in the Duolingo course

Internals\\Week 1\\Student Feedback Sheets\\1WKL7

No	0.0343	1			
			1	OOD	18/07/2017 12:57

I was able to memorize a few vocabulary words and form simple sentences.

Reports\\Coding Summary By Node Report

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Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 2\\Student Feedback Sheets\\2WKL2

No	0.0160	1			
			1	OOD	01/08/2017 13:52

and helped with the pronunciation of the phrases.

Internals\\Week 2\\Student Feedback Sheets\\2WKL4

No	0.1352	2			
			1	OOD	01/08/2017 14:55

They tend to be explained all at once in the Duolingo course, and so it can take time to sort

			2	OOD	01/08/2017 14:58
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the Duolingo course only spends a small amount of time on each

Internals\\Week 2\\Student Feedback Sheets\\2WKL7

No	0.0259	1			
			1	OOD	01/08/2017 15:17

Anki has helped with memorization.

Internals\\Week 3\\Student Feedback Sheets\\3WKL2

No	0.0452	2			
			1	OOD	01/08/2017 16:05

and the Abair.ie for the words that didn't have a little mega phone beside them.

2 OOD 01/08/2017 16:13

I had my Duolingo streak up to 12 days this week

Internals\\Week 3\\Student Feedback Sheets\\3WKL7

No 0.0913 2

1 OOD 03/08/2017 15:52

I used Anki to memorize the household vocabulary,

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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2 OOD 03/08/2017 16:06

When I needed to use a new word for my recording, I looked up the pronunciation on Abair.

Nodes\\Contradictions\\Level 5\\L5SUOU1

Document

Internals\\Week 1\\Student Feedback Sheets\\1WKL2

No 0.1984 8

1 OOD 18/07/2017 12:07

It's like my tongue won't move in certain ways to arrangement these sounds.

2 OOD 18/07/2017 12:09

The sentence structure is taking a little to get used to as well.

3 OOD 18/07/2017 12:15

What I think helps the most though is the first 15min of class where we got up to talk to other people

4 OOD 18/07/2017 12:19

It's not that I'm uncertain about anything, but it's all just a lot to process after the first week

5 OOD 18/07/2017 12:21

it's been a little overwhelming

6 OOD 18/07/2017 12:21

But I'm really looking forward to this course

7 OOD 18/07/2017 12:23

It made me realize that actually saying it out loud is what I need more practice at

8 OOD 18/07/2017 12:24

Everything is great so far! I think the main thing that I'm having problems with is the pronunciation.

Internals\\Week 1\\Student Feedback Sheets\\1WKL4

No 0.2294 5

1 OOD 18/07/2017 12:31

I feel that I am getting a good grasp overall thanks to classroom exposure

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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2 OOD 18/07/2017 12:32

In particular, the fact that the classroom subjects tend to at least partially match up with the Duolingo course track is of great use.

3 OOD 18/07/2017 12:34

I've been using nothing from outside the course recommendations while studying.

4 OOD 18/07/2017 12:34

The course has a good pace and manages to teach a good amount despite only meeting twice a week.

5 OOD 18/07/2017 12:35

I have no particular dislikes so far.

Internals\\Week 1\\Student Feedback Sheets\\1WKL5

No 0.2090 4

1 OOD 18/07/2017 12:41

knowing how to pronounce the words

2 OOD 18/07/2017 12:42

has been very helpful in achieving the goal above

3 OOD 18/07/2017 12:50

But I think that once I learn the words from speaking them I will recognize them in the text and that won't be a problem anymore

4 OOD 18/07/2017 12:52

Very good class because of how interactive it is.

Internals\\Week 1\\Student Feedback Sheets\\1WKL7

No 0.2786 6

1 OOD 18/07/2017 12:52

Challenges: Remembering basic conversational phrases and pronouncing them correctly

2 OOD 18/07/2017 12:57

One of the biggest challenges for me so far has been mastering the Irish orthography

3 OOD 18/07/2017 12:58

figure out how a word that I see written would be pronounced.

4 OOD 18/07/2017 13:00

I am not quite yet able to have a conversation without looking at the paper to remind myself which phrase to respond with.

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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5 OOD 18/07/2017 13:00

Repeated practice in class has helped me respond faster in conversations.

6 OOD 18/07/2017 13:01

My impression of the course so far is generally positive. The class sessions are structured well, with a good balance between time practicing and time learning new information.

Internals\\Week 1\\Student Feedback Sheets\\1WKL8

No 0.1934 4

1 OOD 18/07/2017 13:02

I'm still struggling with pronunciation and immediate recall,

2 OOD 18/07/2017 13:04

I can say hello successfully (I think)

3 OOD 18/07/2017 13:06

My biggest struggle is pronunciation, which is really what's hindering my ability to remember stuff.

4 OOD 18/07/2017 13:06

The class is great in terms of speed and subject matter

Internals\\Week 1\\Student Feedback Sheets\\1WKL9

No 0.1324 7

1 OOD 18/07/2017 13:07

and I did pretty well

2 OOD 18/07/2017 13:09

He got over his frustration and decided to commit, find things to help himself, and he overtook me J

3 OOD 18/07/2017 13:12

Not ideal outcomes...

4 OOD 18/07/2017 13:12

The verbs are giving me nightmares, and the prep pronouns.

5 OOD 18/07/2017 13:16

they're very helpful.

6 OOD 18/07/2017 13:16

Like my students, more vocab = more problems = more headaches.

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
			7	OOD	18/07/2017 13:19	

I'm just another student. Sigh.

Internals\\Week 2\\Student Feedback Sheets\\2WK10

No 0.0737 2

1 OOD 01/08/2017 13:36

I'm still uncertain about questions and use of the word "go"

2 OOD 01/08/2017 13:37

Ta and bí are still confusing

Internals\\Week 2\\Student Feedback Sheets\\2WKL1

No 0.0719 2

1 OOD 01/08/2017 13:43

But it's hard to cram everything in and still remember.

2 OOD 01/08/2017 13:43

but I'm not sure how much I remember ;)

Internals\\Week 2\\Student Feedback Sheets\\2WKL2

No 0.2812 9

1 OOD 01/08/2017 13:47

I felt a little behind on Friday because of this.

2 OOD 01/08/2017 13:48

It makes me really nervous when I don't know what to say or if I mess something up. Then everything gets thrown off. So it makes it a little difficult to talk to other people in the class since I was so unsure of words and phrases on Friday.

3 OOD 01/08/2017 13:51

Focloir.ie seems to be my favorite

4 OOD 01/08/2017 13:56

I feel more confident speaking about my background and where I am from.

5 OOD 01/08/2017 13:57

Doing the listening exercises from the book, is really helping me to pick the familiar words out of sentence and solving the words I don't know with context clues.

6 OOD 01/08/2017 13:58

I really get a lot out of the class time so it has been a struggle this week trying to learn these words and phrases on my own.

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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7 OOD 01/08/2017 14:16

Is maith liom e!

8 OOD 01/08/2017 14:17

The classes are a lot of fun and the songs we listened to in class on Friday were very interesting!

9 OOD 01/08/2017 14:18

I just wish I had more time to devote to it all!

Internals\\Week 2\\Student Feedback Sheets\\2WKL4

No 0.2148 3

1 OOD 01/08/2017 14:57

I have been making progress, and though I think a lot of things are still uncertain currently I believe

2 OOD 01/08/2017 14:58

The rules themselves are explained fine, but having more

3 OOD 01/08/2017 15:04

I think the course is moving at a good pace and has been covering useful topics. I'm not having any

Internals\\Week 2\\Student Feedback Sheets\\2WKL5

No 0.3255 4

1 OOD 01/08/2017 15:05

The large amount of time spent during class speaking with each other has been very helpful in achieving the goal above. I have not really overcome the challenge above yet.

2 OOD 01/08/2017 15:07

Still uncertain about pronunciation from reading text

3 OOD 01/08/2017 15:07

But I think that once I learn the words from

4 OOD 01/08/2017 15:08

Very good class because of how interactive it is.

Internals\\Week 2\\Student Feedback Sheets\\2WKL6

No 0.1958 4

1 OOD 01/08/2017 15:10

I've observed improvements.

Aggregate Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
			2	OOD	01/08/2017 15:12
but I can observe that I start to get used to them.					
			3	OOD	01/08/2017 15:13
They are things that I still could not get very well.					
			4	OOD	01/08/2017 15:13
It has been a challenge, particularly with the family members words. But I am enjoying the experience.					

Internals\Week 2\Student Feedback Sheets\2WKL7

No	Coverage	Number	Reference Number	Coded By Initials	Modified On
	0.2834	4	1	OOD	01/08/2017 15:16
I think I am learning certain words faster than the rules behind formulating a question or response.					
			2	OOD	01/08/2017 15:16
Pronouncing new words is still a challenge.					
			3	OOD	01/08/2017 15:17
Conversations in class have been good for learning which phrases to use when, and how to pronounce them.					
			4	OOD	01/08/2017 15:18
I like the way new words and phrases are taught in class. We are able to practice pronouncing everything and using words with context					

Internals\Week 2\Student Feedback Sheets\2WKL8

No	Coverage	Number	Reference Number	Coded By Initials	Modified On
	0.2827	3	1	OOD	01/08/2017 15:19
My memory of phrases is improving but getting the words to fit in my mouth correctly is a bit of a struggle.					
			2	OOD	01/08/2017 15:21
I can have a remedial (like 2 year old style) conversation about where I'm from, with a little help from the handout.					
			3	OOD	01/08/2017 15:22
I really like the course, I feel like we're moving at a reasonable speed. I think the biggest problems I'm having are ones that I just need to practice on my own.					

Internals\\Week 2\\Student Feedback Sheets\\2WKL9

No 0.2245 2

1 OOD 01/08/2017 15:24

The eclipses came a little easier since I was able to pair voiced/voiceless consonants for eclipses. But I'm still not sure when I should implement eclipses.

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26/10/2017 18:53

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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2 OOD 01/08/2017 15:48

The phonological rules are driving me crazy. I dislike mispronouncing words so I do what I can to approximate and get as close as possible to native-like pronunciation.

Internals\\Week 3\\Student Feedback Sheets\\3WKL10

No 0.1002 2

1 OOD 01/08/2017 15:54

I'm not comfortable not knowing the words and expressions and am still training my brain to memorize and find mnemonics.

2 OOD 01/08/2017 15:56

I like the instructor's enthusiasm.

Internals\\Week 3\\Student Feedback Sheets\\3WKL2

No 0.2842 6

1 OOD 01/08/2017 15:58

I'm starting to understand the sentence structure a little more. It was definitely strange at first but again it's all starting to come together.

2 OOD 01/08/2017 15:59

A lot of challenging new words and trying to pronounce them.

3 OOD 01/08/2017 16:06

The sentence structure is on the up-and-up! I'm feeling more comfortable with the vocabulary I'm saying. I'm not sure if all the speaking practice is training my tongue and mouth to form the words and sounds, or if I'm just getting used to hearing the way that I say it and think it's correct.

4 OOD 01/08/2017 16:06

I think I'm starting to get the hang of the verb conjugations.

5 OOD 01/08/2017 16:09

I hope I remember the section

Overall everything is going well. As I've said in previous weeks, I wish I had more time to devote to this. I need to learn to relax and trust what I'm saying. I tend to over think what word comes next which just throws me off.

Internals\\Week 3\\Student Feedback Sheets\\3WKL4

No 0.1030 2

1 OOD 01/08/2017 16:31

I feel that I have been starting to become more comfortable in the language to a certain extent,

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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2 OOD 01/08/2017 16:33

The course has been moving at a good enough pace for me.

Internals\\Week 3\\Student Feedback Sheets\\3WKL6

No 0.3369 5

1 OOD 03/08/2017 15:37

I've observed improvements.

2 OOD 03/08/2017 15:40

I started to be more independent of the sheets to say basic sentences.

3 OOD 03/08/2017 15:47

Despite re-reading explanations in Duolingo and Internet, I still would like to improve and put in practice easily the lenition and eclipses

4 OOD 03/08/2017 15:44

And I am usually uncertain about how to say some words related to the family members..

5 OOD 03/08/2017 15:47

It has been a challenge, particularly with the family members words. But I am enjoying the experience and it seems now that for the regular verbs conjugation I will not have too much difficulties.

Internals\\Week 3\\Student Feedback Sheets\\3WKL7

No 0.2701 3

1 OOD 03/08/2017 15:53

Certain grammatical constructs are challenging. It often takes me a while to remember which words I need to change in order to conjugate certain phrases I already know, for example conjugating "is maith leom X" to the third person.

2 OOD 03/08/2017 16:00

This also was good practice with pronunciation.

3 OOD 03/08/2017 16:06

The course is going great! I am learning a lot and I feel like I am improving my skills.

Internals\\Week 3\\Student Feedback Sheets\\3WKL8

No 0.2843 3

1 OOD 03/08/2017 16:09

It's getting a little easier! I'm still having some pronunciation trouble and word recollection trouble but I just need to practice more.

2 OOD 05/08/2017 12:56

it's starting to become a little easier to recall things, and its especially become easier to understand things

Reports\\Coding Summary By Node Report

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Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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3 OOD 05/08/2017 12:59

it's great, I wish i had a better handle on the language but i think I'm getting there.

Internals\\Week 3\\Student Feedback Sheets\\3WKL9

No 0.2735 4

1 OOD 05/08/2017 13:00

I'm feeling better about how and why of lenition and eclipses but I'm not sure on the pronunciations.

2 OOD 05/08/2017 13:02

I'm also struggling with words that are missing in my replies bc I thought I knew what was what (that I understood what I needed to do and in fact, did not).

3 OOD 05/08/2017 13:03

I'm happy that reading and writing are possible at this point even though they aren't a focus of the course.

4 OOD 05/08/2017 13:07

I have a feeling that verb pronunciations are going to be challenging this coming week especially as we explain more about our live and our families.

Internals\\Week 4\\Student Feedback Sheets\\4WKL9

No 0.2464 2

1 OOD 05/08/2017 13:08

I think that this 'mixed message' between the online and class work is what caused some of the questions that were asked in class that went beyond speaking and listening.

2 OOD 05/08/2017 13:11

We have questions related to what we find in Duolingo that aren't related to what we do in class (except for thematic vocabulary which also happen to be verbs, for example), which causes me personally to want to ask questions about

Internals\\Week 5\\Student Feedback Sheets\\5WKL8

No 0.2602 3

1 OOD 05/08/2017 13:12

I'm getting better, but it's a constant struggle.

2 OOD 05/08/2017 13:13

I'm starting to build a mental lexicon, which is great. I know some words off the top of my head so things are getting slightly easier.

3 OOD 05/08/2017 13:14

I like how much we are encouraged to talk to each other. I struggle through it but it is super helpful.

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 5\\Student Feedback Sheets\\5WKL9

No 0.1112 3

1 OOD 05/08/2017 13:15

It's amazing how much can be done in one hour and consequently, how lost one can be during the next class.

2 OOD 05/08/2017 13:19

I am surprised at how much I learned

3 OOD 05/08/2017 13:23

I never did spread it out over the week (what a bad student!).

4 OOD 05/08/2017 13:23

In any case, thank you for an interesting experience

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Node

Nodes\\Contradictions\\Level 2\\L2SUTO

Document

Internals\\Week 1\\Student Feedback Sheets\\1WKL1

No	0.0432	1	1	OOD	11/07/2017 14:57
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It would be a lot easier if Duolingo had the sound accessible for all the material,

Internals\\Week 1\\Student Feedback Sheets\\1WKL2

No	0.0288	1	1	OOD	18/07/2017 12:12
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I have Duolingo repeat the sentence or word many times and then I try to duplicate it.

Internals\\Week 1\\Student Feedback Sheets\\1WKL7

No	0.0602	1	1	OOD	18/07/2017 12:57
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I often have to skip problems where I hear a word or phrase and am asked to type it because I do not know how it would be spelled

Internals\\Week 1\\Student Feedback Sheets\\1WKL9

No	0.0315	1	1	OOD	18/07/2017 13:16
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I also use the 'cheat sheets' created by the prof to memorize and practice,

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\Week 3\Student Feedback Sheets\3WKL2

No		0.0123	1	1	OOD	01/08/2017 16:05
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I used the Focllir.ie website a lot

Internals\Week 3\Student Feedback Sheets\3WKL9

No		0.0537	1	1	OOD	05/08/2017 13:05
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instead of having to sort through ALL of the possibilities and pick the one word the sound belongs to.

Internals\Week 4\Student Feedback Sheets\4WKL9

No		0.1062	1	1	OOD	05/08/2017 13:08
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The focus of the course is supposed to be speaking and listening, but when we do the Duolingo there is translation and reading that we have to be able to do in order to succeed.

L2SUAR: Subject – Artefact

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Nodes\Contradictions\Level 2\L2SUAR

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Internals\Week 1\Student Feedback Sheets\1WKL1

No		0.0108	1	1	OOD	11/07/2017 14:50
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and they were helpful

Internals\\Week 1\\Student Feedback Sheets\\1WKL9

No	0.0218	1				
			1	OOD		18/07/2017 13:17

I also don't use the photocopies except for in class

Internals\\Week 3\\Student Feedback Sheets\\3WKL2

No	0.0226	1				
			1	OOD		01/08/2017 16:12

for the pronunciation practice and then wrote and recorded my own.

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Internals\\Week 3\\Student Feedback Sheets\\3WKL9

No	0.0537	1				
			1	OOD		05/08/2017 13:05

I prefer reading a passage and then listening to it, because then I can 'see' the words as I hear them

L2AROB: Artefact – Object

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Nodes\\Contradictions\\Level 2\\L2AROB

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Internals\\Week 1\\Student Feedback Sheets\\1WKL1

No	0.0288	1				
			1	OOD		11/07/2017 14:59

isn't the same as hearing the cadence of native speakers

Internals\\Week 2\\Student Feedback Sheets\\2WKL7

No	0.0303	1				
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used Anki to help memorize the phrases.

L2SURU: Subject – Rules

26/10/2017 19:05

Coding Summary By Node

What tensions and contradictions emerge in a BL course for ab initio language learners
26/10/2017 19:05

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Nodes\\Contradictions\\Level 2\\L2SURU

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Internals\\Week 1\\Student Feedback Sheets\\1WKL9

No		0.0227	1	1	OOD	18/07/2017 13:18
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But I know there is info in there that I should read...

Internals\\Week 3\\Student Feedback Sheets\\3WKL10

No		0.0159	1	1	OOD	01/08/2017 15:53
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I fell behind in Duolingo

L2SUDL1: Subject – Division of Labour (Vertical)

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Nodes\\Contradictions\\Level 2\\L2SUDL1

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Internals\\Week 1\\Student Feedback Sheets\\1WKL1

No	Coverage	Number	Reference	Coded By	Modified On
	0.0283	1			
			1	OOD	11/07/2017 14:54

Oisin is a great teacher. He makes the class really fun

L2SUDL2: Subject – Division of Labour (Horizontal)

Aggregate	Classification	Coverage	Number	Reference	Coded By	Modified On
			Of Coding	Number	Initials	
			References			

Node

Nodes\\Contradictions\\Level 2\\L2SUDL2

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Internals\\Week 2\\Student Feedback Sheets\\2WKL4

No	Coverage	Number	Reference	Coded By	Modified On
	0.0251	1			
			1	OOD	01/08/2017 15:01

I have still been working by myself so far

L2SUOB2: Subject – Object

Aggregate	Classification	Coverage	Number	Reference	Coded By	Modified On
			Of Coding	Number	Initials	
			References			

Node

Nodes\\Contradictions\\Level 2\\L2SUOB2

Document

Internals\\Week 1\\Student Feedback Sheets\\1WKL1

No	0.0484	1				
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It's been difficult to understand when the consonants change sound. (ie. d to g or t to ch).

L1AR: Internal contradiction within Artefact

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
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Node

Nodes\\Contradictions\\Level 1\\L1AR

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Internals\\Week 2\\Student Feedback Sheets\\2WKL9

No	0.0936	1				
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I do wish that the explanations in each duolingo set of exercises came with pronunciation, like in the pronoun, verb conjugation charts.

Appendix T Example of tagged segments for student objects: categories OB1 (Object – Language), OB2 (Object – Strategies and Transferable skills), Ob3 (Defined Goals/Objectives)

Tagged Segments for OB1

Tags	Coded Segments
Course objective	we started right into our backgrounds and where we are from
Course objective	Achieve a very basic conversational level.
Course objective	and need to focus on the family terms
Course objective	our backgrounds and where we are from
General language goals and strategies	another language
General language goals and strategies	I had no particular goals for the first few weeks other than to gain a proper starting point in the language.
General language goals and strategies	I am hoping we can cover a good variety of subjects before it ends.
General language goals and strategies	general skills.
Orthography	Understanding the sounds and orthography of the language properly were my main challenges
Aural Comprehension	Understanding the sounds and orthography of the language properly were my main challenges
Pronunciation or speaking skill	My goal is to be able to say the words
Pronunciation or speaking skill	knowing how to pronounce the words

Pronunciation or speaking skill improve my general pronunciation and fluency.

Pronunciation or speaking skill Pronunciation

Pronunciation or speaking skill Goals are still just be able to say words right.

Pronunciation or speaking skill Pronunciation.

Pronunciation or speaking skill Pronunciations

Pronunciation or speaking skill Pronunciation

Pronunciation or speaking skill Pronunciation

Pronunciation or speaking skill To understand better the pronunciation rules

Revision My goals were to practice

Revision To keep up

Revision trying to get a better grasp on previous units

Revision before I move forward.

Revision To keep up

Revision I will try to prevent attrition!

Tagged Segments for OB2

Pronunciation It would help a lot for pronunciation.

Pronunciation I just need to get the pronunciation down so I can remember the words.

Pronunciation as we discuss them to get some feeling of their placement.

Pronunciation looked up 'tricks' for pronunciation

Pronunciation And getting the vocabulary out of my mouth

Metacognitive strategies	I would like to see a printed dialog of maybe 10-15 sentences
Metacognitive strategies	and be able to do the chunked learning
Metacognitive strategies	the words in a way that I could remember to say them
Metacognitive strategies	Another goal is to get over the fact that I'm talking in another language to someone
Metacognitive strategies	I need to not let the nerves get to me.
Metacognitive strategies	in order to make learning about the language further more easy.
Metacognitive strategies	I also use English or French words to remind myself of the sounds that Irish spellings makes.
Revision	I'm hoping with practice it won't be as difficult to form the words and phrases.
Revision	I'm working to get more comfortable with quicker and more fluid responses
Revision	I need more work with uruh and knowing when the sounds change
Revision	word recollection
Revision	I have been trying to use the Duolingo course more frequently,

General language goals and strategies	Well I worked a little bit a head while I could.
General language goals and strategies	Just surviving at this point, and being ready for class.
General language goals and strategies	be more prepared for next week.
General language goals and strategies	get comfortable interacting in class

Grammar	various rules of sound changes with regards to grammar down.
Grammar	Understanding the grammar more extensively

Tagged Segments for OB3

Pronunciation	Pronunciation
Pronunciation	Pronunciation
Pronunciation	I really just want to get pronunciation, I want to be able to say the words better.
Pronunciation	Pronunciation, removing intonation,

Pronunciation	the family members names and pronunciation of them
Revision	I want to practice the sheets that we got this week and continue to use the Duolingo app
Revision	get some confidence with very basic conversation
Revision	learn vocabulary words, become accustomed to the basic sentence structure. Goal wise, I want to get caught up with everyone
Revision	I'll be working more with the DuoLingo course and re-reading my paper course materials.
Revision	get some confidence with very basic conversation
Revision	will need to review it before week four starts on Tuesday.
Revision	I want to solidify my understanding of the lexicon and grammar up to this point
Revision	I still would like to improve and put in practice easily the lenition and eclipses.
Orthography	I still need to solidify my understanding of the orthography to make things easier in the future.
Orthography	so I don't really plan on focusing on the pronunciation directly right now.
Orthography	I have been trying to memorize the spelling rules so that I can sound out new words on Duolingo and work out how spoken words might be spelled.
Orthography	to try to get the pronunciation based on spelling correct
Orthography	I don't really plan on focusing on the pronunciation directly right now.
Orthography	fada's in the right places
Orthography	and the spelling changes that happen with lenition and eclipses
Speaking	To be able to have a basic conversation
Speaking	to use full sentence answers
Speaking	Be able to speak clearly about my household,
Ccourse Objectives	This week focused on likes, dislikes and our families.
Ccourse Objectives	My goals were to become comfortable asking and answering questions about where I live, what I do, and what I like.
Ccourse Objectives	our families and what they like.
Ccourse Objectives	My challenges during the week 2 were related to the family members names
Ccourse Objectives	the household vocabulary

Grammar the grammar is implemented in the main class sessions.

Grammar Rules regarding lenition and eclipsis

Grammar I would like to improve and understand more about the lenition and eclipses.

Grammar remembering word order in our questions

Grammar fuller explanations of lenition and eclipses

I've been trying to understand the lenition and eclipses, as noted above.

continuing to be mindful of eclipse and lenition is what I seem to have focused on this week.

word order in sentences.

Appendix U Group Interview Transcript

00:00:01 Principal Investigator (PI): Twenty-first of the tenth. Welcome everybody. Em... so, our first question that we'll start with is to do with the course objective. So we were all aware that the course objective was to get you up to about the B1 [correction should have said A2] level on the Common European Framework of Reference for Languages. Is everyone familiar with this? No. Okay. Well, the CEFR, as it's called, basically maps out learner levels. All right? So A1: breakthrough. Would you agree that you've reached this level yourself? Okay? (reading) Can understand and use familiar everyday expressions and very basic phrases aimed at the satisfaction of needs of a concrete type. (finished reading) Yes? No?

00:00:44: Yeah.

00:00:45 PI: Yeah? Okay. So that's everyone. The next one is, (reading) can introduce themselves and others and can ask... answer questions about personal details such as where he/she lives, people they know and things they have.

00:00:57: Yeah.

00:00:57 PI: Yes, okay. (reading) Can interact in a simple way provided the other person talks slowly and clearly and is prepared to help.

00:01:04: (laughing) Yeah, prepared to help.

00:01:06 PI: (laughing) Yeah. So that's A1. That's breakthrough. Okay? A2 now is (reading) can understand sentences and frequently use expressions related to areas of most immediate relevance: basic personal and family information, shopping, local geography, employment.

00:01:24: Kinda.

00:01:25 PI: Come on, come on.

00:01:26: Kinda.

00:01:27 PI: Kinda. Okay. So I'd... eh... is there certain things there, so personal and family information.

00:01:33: Yeah.

00:01:33: Yeah.

00:01:34 PI: Shopping?

00:01:37: Probably not.

00:01:38 PI: Probably not, no. Local geography?

00:01:41: As in, like, here?

00:01:42 PI: Yeah.

00:01:44: Uhhh...

00:01:44: Oh, um...

00:01:45: Geography, what?

00:01:47 PI: Geography... meaning, like, what's around you, describing buildings that you commonly encounter, names and things for streets and stuff like that.

00:01:54 PI: No? Okay, so we didn't get that. (reading) Can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters.

00:02:04: Yep.

00:02:05 PI: So... Do you go, do you like, how often, when do you rise and stuff?

00:02:08: Mmhmm. Yep.

00:02:09 PI: Okay. (reading) Can describe, in simple terms, aspects of their background, immediate environment and matters in areas of immediate need.

00:02:20: Mostly.

00:02:21 PI: Mostly? So what ones there would strike you as, "no that would be beyond me?"

00:02:29: Immediate need.

00:02:29 PI: Immediate need. Can you elaborate on that?

00:02:33: I wouldn't be able to go into a store or a restaurant, or... ask somebody what time it is necessarily or where a particular street is but like I said, I don't know which needs are they interested in.

00:02:47 PI: Okay. So, immediate needs can be defined as, say if you're hungry or you're cold or you're wet or something like that...

00:02:58: With the proper vocabulary.

00:02:59 PI: With the proper vocabulary. But you feel you haven't met that objective? You haven't ticked that box in the CEFR?

00:03:04: Not completely.

00:03:08 PI: Not completely? How do other people feel?

00:03:11: Yeah, not completely.

00:03:13 PI: Not completely. Okay. Brilliant. Eh, so now we're at B1. And I think this is where we're kind of at that everyone's going "no, not at all," but it's up to yourselves, right? So, be as honest as possible. (reading) Can understand the main points of clear standard input on familiar matters regularly encountered in work, school and leisure. (Silence for eight seconds) You're shaking your head, (name inaudible)

00:03:39: No.

00:03:41 PI: Okay. So, what that would relate to is... You know, when you get up, what time you go to work at...

00:03:46: Yeah.

00:03:46 PI: ...What, like what do you do in your spare time...

00:03:51: Yeah.

00:03:52 PI: What you're doing in school, what other people are doing. Are we able to...

00:03:58: Yeah, mostly.

00:03:58: Yeah.

00:04:01: With a little more practice.

00:04:01 PI: Yeah, with a little more practice?

00:04:02: It's recent, so it's not, like, cemented yet

00:04:04 PI: So it's not cemented but you feel like you're at the level where you're able to interact with it comfortably at this stage?

00:04:10: Yeah.

00:04:11: Mmhmm.

00:04:15 PI: Okay. (laughing) (name inaudible).

00:04:16: (Group laughter)

00:04:17 PI: Okay, so anything else to add from anyone?

00:04:19: Nope. I feel like, um, mainly the way I can say yes to this is because of all the listening comprehension things we did. Like listening to the stuff from the textbook and then trying to, like, figure out if we understood just basically what we heard.

00:04:33 PI: Yeah.

00:04:33: Because usually I can just understand like what was being said. I wouldn't get the fine details until I listened to it a couple of more times but, um, yeah.

00:04:42 PI: Okay.

00:04:43: Yeah, I can understand it more than I can quickly respond to it, but I can, like, remember the words that are said to me if that makes sense.

00:04:52 PI: Okay. So there's a difference between the production and actually understanding the skills. So it's the listening and the speaking skills. So, yeah. I'll have to ask about that a little bit later. Just dealing with this, just the three more points. Em... (reading) you can deal with most situations likely to arise while travelling in an area where the language is spoken.

00:05:21: Probably.

00:05:22 PI: Probably?

00:05:24: Again it would depend on what... (clears throat) like if somebody told me how much something was...

00:05:28 PI: Yeah.

00:05:29: If I think back to Dublin... Ordering coffee? Probably. Shopping? Probably not. Um... beyond hello, thank you... It would be, I think, just another... just a question of vocabulary.

00:05:48 PI: Okay. So more vocabulary needs to come. Does anyone else feel that they could travel through the Gaeltacht?

00:05:53: (group laughter)

00:05:54: I mean, vocabulary is the biggest problem. Other than that I'd probably get by with, like, a lot of pointing to things.

00:06:02 PI: (laughing) Okay. I like that strategy. Anything else to add? Learner 10?

00:06:09: I... I would not feel comfortable travelling, no.

00:06:11 PI: (laughing) Okay.

00:06:12: I would not feel like I know enough.

00:06:13 PI: Okay. Alright. So second last one. (reading) Can produce simple connected text on topics that are familiar or of personal interest.

00:06:25: (inaudible)

00:06:27 PI: Yeah?

00:06:30: I think it's kinda like...(inaudible)... Again it's like, kinda frustrating now but I don't know about, like, two weeks from now.

00:06:37 PI: Of course, yeah.

00:06:40: (laughing) Maybe like six months to a year?

00:06:41 PI: Okay. So at the moment you feel that that's alright.

00:06:44: Sort of.

00:06:45 PI: Okay. Anyone have anything else to add? No? Okay. Em... (reading) Can describe experiences, events, dreams, hopes and ambitions and freely give reasons and explanations for opinions and plans.

00:07:00: (group laughter)

00:07:03 PI: There's a lot of head shaking going on. Okay. Great. That's the end of that question. Em... So the next one is... So the objective was to get us just to that point where we could start to... so we could tick off some things. But then we have an issue because it's between your listening skill and your speaking skill. Which do you feel is better?

00:07:24: Listening.

00:07:25 PI: Listening. You're more comfortable listening than you are speaking?

00:07:28: I'm more comfortable understanding it than I am reproducing it.

00:07:34 PI: You'd be more comfortable speaking than you are listening? Okay. So, hands up who's more comfortable listening? Okay, so that's four. And more comfortable speaking? Okay, so that's three. Interesting. What were your objectives and goals for taking this course? So we have the course's goals, but what were your ones?

00:08:02: Just to find out how the language works.

00:08:06 PI: Okay. A whisk of curiosity you might say.

00:08:08: Yeah. Curiosity, exactly.

00:08:12: To study a language that was not romantic.

00:08:18 PI: (laughing) Okay.

00:08:20: (group laughter)

00:08:23 PI: One participant is now listing Chinese, Japanese, Russian...

00:08:25: (group laughter)

00:08:29 PI: Em, just a note. And Arabic as well. So what were the other objectives? To learn more about the language, to try something different...

00:08:35: To learn more about Ireland.

00:08:37 PI: To learn more about Ireland

00:08:40: I had a... (inaudible)... so it'd be kinda cool to be able to speak...

00:08:44 PI: To be able to turn around and kinda... mess with someone's head.

00:08:48: (Group laughter

00:08:51 PI: Okay. So, to learn about Ireland, to experience the language. Any other reasons?

00:08:57: Um... just general interest. We travelled there, we saw the signs. And I'd like to learn a little bit more.

00:09:07 PI: And Learner 9, you were forced?

00:09:09: Support. (laughing)

00:09:11 PI: All right. Brilliant. Did you achieve those objectives?

00:09:13: (inaudible)... (group laughter)

00:09:19: Yeah.

00:09:20 PI: Do you believe that you achieved those things?

00:09:21: Mmhmm.

00:09:22 PI: Okay, so the course was satisfactory for your own objectives although it didn't...

00:09:28: We touched on all the stuff in the A1 category.

00:09:35: Even if it was a whole semester I think we would've gotten pretty close.

00:09:40: (group laughter)

00:09:43 PI: Em... moving onto the tools, right. That we used in the course. What was your impression of the technical side of the course?

00:09:58 PI: So if we take the first one: Speakapps. It basically underpins the course and lays out what we're doing each week. What did you think of Speakapps?

00:10:08: It's nice to have a map of where we are in the course, I guess.

00:10:15 PI: Okay. Just a map. So...

00:10:16: It was kind of like a checkpoint to see what we were looking at coming up and then remember things.

00:10:24 PI: Yeah. Indeed. Anything else?

00:10:26: It was good to have a resource to know where to go for the documents you referred to.

00:10:31 PI: Okay. Excellent.

00:10:33: It was nice to have a hub for everything because I have a Duolingo account, a Soundcloud account, I use Anki. I use all of the stuff but having to go through all of it for this one course could be a little tricky at times because there's so much stuff to go through but having like a single area where you know this is what you have to do with this piece of technology for this week was very useful.

00:10:55 PI: Yeah. And that's kinda the anchor point because there's a lot of text so you can get lost on what you're going to do. What did you think of the aesthetic SpeakApps and the usability of it?

00:11:12: Uh... I wish I had (inaudible) Irish or whatever anyway so I didn't really explore anything. I was like whatever what was in front of me.

00:11:19: It was really easy to be able to find the links I wanted to.

00:11:24 PI: But being on the links, you didn't play around with what else was going on?

00:11:28: No.

00:11:28: It's pretty simple. It's not a very pretty website but it's useful.

00:11:35 PI: Yeah, yeah. Okay. What did you think of the Duolingo and being part of the Duolingo classroom?

00:11:44: I liked that. It kept me accountable. (laughing) Well, yeah.

00:11:47: (group laughter)

00:11:50: It tried to keep me accountable then I would realise I had things to do.

00:11:55: It could keep you accountable in between the periods because it would tell you you had to do this by... pretty soon. But if it reminded you, like, three days after you get the assignment, I found myself doing stuff near the end before it was due sometimes. You know, it can just sorta slip your mind.

00:12:12 PI: Yeah, indeed. Em...

00:12:13: And we keep getting emails randomly from Duolingo everyday, so I remembered. And um... I actually did manage to go on everyday until recently.

00:12:24: (group laughter)

00:12:25 PI: Well we all understand why because everyone is so busy with mid-terms, isn't it? [General agreement] Em... so actually using the app, do you feel it impacted on your different skills in the language or... tell me how what impact or how important it was for you to use the app.

00:12:44: There was definitely a big impact. Um... I think the fact that I was using it everyday helped me think about Irish everyday. And um... even though I was typing, reading and listening instead of speaking it just helped me learn the words and just keep it on my mind, so um... otherwise I was just

going to class two days a week and I probably wouldn't get very far but with this it was a more continued learning experience

00:13:16 PI: Anyone else have anything?

00:13:18: Yeah, I started using the tablet - the iPad - and Bob kept saying "are you reading that stuff in the front?" And I said, I don't know what you're talking about that's all on the desktop version so I only started using that. I found their introductions and their explanations helpful.

00:13:38 PI: Yeah. There's an entire workbook in it. How many people actually made use of the grammar workbook... well not the workbook but the grammar book? Learner 3 is shaking his head vigorously.

00:13:50: (group laughter)

00:13:52: I find like the grammar explanations before each section of the Duolingo really helpful and I didn't actually know that that existed until I started using the desktop version. And I was like, wow! Okay. That's a lot more helpful because a lot of the time on the mobile version it would just go through something and not quite understand what you're doing until you read it and you go, oh okay that's what I was doing.

00:14:15 PI: I did mention it several times during the course

00:14:18: Well that's just a comment about the...

00:14:20 PI: Yeah, yeah. No I understand and that's the problem with mobile versus desktop. You get two different user experiences but was it that you discovered it yourself or was it that I prompted you? Was it something that...

00:14:34: I'm sorry to say I discovered it myself.

00:14:37 PI: You discovered it yourself? (laughing)

00:14:38: I didn't know about it until you mentioned it.

00:14:41 PI: So you discovered it yourself whereas...

00:14:44: Usually when I do the Duolingo it's when I'm waiting for the bus or like in the short amount because I don't have very much time. So it's normally in the short amount of time that I'm waiting for something and I can flick through something on my phone. I didn't even know that you could do it on a desktop and I didn't know that there were workbooks until you mentioned them.

00:15:03 PI: Okay.

00:15:05: What's the workbook?

00:15:06 PI: Eh, like not a workbook but a grammar book.

00:15:12: Just like the...

00:15:13 PI: ...the information. If you were to take each unit it would have all of the elements of the Irish language.

00:15:18: You talked to us about having those workbook grammar parts being (inaudible)

00:15:27 PI: Yeah.

00:15:29: I personally wouldn't have found them.

00:15:31 PI: Yeah there's a lot of work that needs to be done on that side of it. I would agree with you.

00:15:34: Um... and I found that reading became my better skill throughout the course from the Duolingo and the papers that we received.

00:15:44 PI: Okay. So you'd rank your reading skill higher than your listening and your speaking?

00:15:48: Yeah and actually my writing.

00:15:50 PI: And your writing as well?

00:15:52: Yeah.

00:15:54 PI: So you're the same?

00:15:55: Mmhmm.

00:15:56: I think that's partially just, or at least for me, that what my brain wants to say in terms of pronouncing a word is not how you pronounce it. So listening to it, it's harder to remember what it is than if I have the visual.

00:16:09 PI: We'll get onto that in a second, okay. With regard to the other tools that we had. Yankee(?) flash cards. Yay or nay?

00:16:18: Yeah they were fun.

00:16:19 PI: They were fun?

00:16:20: Yeah.

00:16:20 PI: Good. Helpful?

00:16:22: Like the ones that you made, I don't think I could make them myself.

00:16:26 PI: That's the other thing. Did you prefer if I made them or if... did you make any yourselves?

00:16:30: No.

00:16:31: I only used yours.

00:16:32: (group laughter)

00:16:33: Okay. No, but that's okay. Did they help you? Were they useful to you?

00:16:40: Yeah. Um, I only used them a few times but the few times I did they clearly helped a lot. Um, and I felt that some of the phrases I didn't really know before were something I had afterwards. Um, I would know how to say them and understand them. I think that actually helped a lot.

00:16:57 PI: Okay. Em, what would make you use them more?

00:17:04: So for the iPad - Apple - it was free, right?

00:17:09 PI: Yes, indeed.

00:17:09: So, free.

00:17:10: (group laughter)

00:17:11 PI: Okay.

00:17:12: So, you had it on Android but I couldn't get it on iPhone.

00:17:15 PI: It was available on PC as well, did you use the web version?

00:17:18: Yes.

00:17:20 PI: You did. But again it's not... it's a little clunky. Yeah, that's a nice way of describing it.

00:17:28: We used them for, uh, when we didn't have hands to click things. Or we couldn't really... like when we were driving. And that's nice because you don't have to remember to push a button. It just goes.

00:17:43 PI: Yeah.

00:17:45: And it will go for as long as you want it to unlike Duolingo which you have to write and type and click.

00:17:55 PI: Yeah so it fits a specific place and time better than other tools whereas I assume when you were accessing Speakapps, because I was actually going to ask about the location where you used it, I assume when you were accessing Speakapps it was on a laptop. Any mobile devices used?

00:18:15: I didn't know that you could use it on a mobile device.

00:18:18 PI: You can, yeah. On Chrome browser you can.

00:18:21: I did that, yeah.

00:18:23 PI: Once or twice?

00:18:25: Yeah it worked.

00:18:26 PI: So when you were using Duolingo, where were you using Duolingo?

00:18:34: At home on the laptop.

00:18:35 PI: At home on the laptop?

00:18:36: Or in my office.

00:18:38: Phone, mostly.

00:18:39 PI: Phone? Laptop? Okay.

00:18:44: If I was at school and I didn't have my laptop and I really needed to see the grammar book I would go on the Chrome browser on my phone, put in Duolingo.com and request the desktop version of the page. Because it's designed for your phone at the same time but it's an obscure way to use it but it did get me the grammar book also.

00:19:06 PI: Yeah, yeah. Okay. That's an interesting get around there.

00:19:10: It's a lot of steps.

00:19:12: PI: Eh, with regard to Soundcloud and the assignments - em... what did you think of those?

00:19:22: I got that last email telling me I had the right link and I did not have the right link so that was a bit of a pain but that was aside from the actual activity itself.

00:19:35 PI: But it's also about the usability of the tech so if the tech wasn't immaculate.

00:19:40: I mean I get that it wasn't as accessible as an iPhone, like, to record, like I just did it on my computer but it just means I have to be in a specific place where I have time to take out my computer.

00:19:55 PI: Yeah. Any other...

00:19:56: Well the only problem I had was that I made a Soundcloud account a long time ago but I didn't confirm my email so it wouldn't let me finish my recording but it didn't say why, so that was annoying but otherwise, you know... there's (inaudible) to record, say yes, private link and send it to you.

00:20:15: I think every time I did a recording the first one was always rubbed so I had to do it again, and then on my account there was like six of them, because there should only be three if there was six because the first one... it's there but it doesn't play anything.

00:20:31 PI: Can you not delete it?

00:20:33: I don't think so, I think I tried.

00:20:34 PI: Okay. I think you can delete it.

00:20:37: It didn't give me the option the last time, it would just say that it was loading.

00:20:43 PI: Okay. That's a great pedagogical value though because the more you repeat it, you know...

00:20:48: (group laughter)

00:20:52: It wasn't intentional. I went to play it back and I was like, what do you mean it won't work?
This again? It was just...

00:20:57: (group laughter)

00:20:58 PI: Would it have been better to have multiple ways of submitting audio? So say you could use SoundCloud, make recordings, press the file and send it on. Or we could make a WhatsApp group? Or something like that, something more direct just to have several options.

00:21:17: With the iPhone you can make a voice memo. That's what I did with SoundCloud I made a voice memo and emailed it to myself but I could email the voice memo to you.

00:21:27 PI: Right, okay. All right. Yeah?

00:21:30: Yeah, agreed.

00:21:33 PI: No, because it's just interesting just to discuss that. So those are kind of the main technologies that we used but we used other technologies as well. So we had Oppia for like the grammar book explorations and stuff like that. We had téarma. The different websites. So we had téarma, foclóir, logainm, abair, fuaimeanna. Then there was also YouTube videos and multi-discs(?) (coughing obscures audio). Which ones did you use and which ones did you just stay away from?

00:22:08: I used the speech synthesizer one. The one on Duolingo.

00:22:16 PI: Yeah, okay. So you used it a lot. You used it to compensate for Duolingo, would you say?

00:22:23: Uh, no. Not Duolingo. SoundCloud, I meant. When I had to say a word I didn't know how to pronounce I used that to figure it out.

00:22:33 PI: Okay. Did everyone else use it as well?

00:22:34: Yeah.

00:22:37 PI: You didn't use it? Why didn't you use it, Learner 9?

00:22:38: I didn't... um, you and my notes on the Anki and just make notes on the workbook pages even, for pronunciation. And, um, the recordings that you uploaded. And I'd just listen to you.

00:23:01 PI: Oh, yeah. Okay. All right. Em... you were praising me (laughing). Any other input there for the...

00:23:10: I used the Anki.

00:23:12 PI: Oppia? No?

00:23:14: Oppiat?

00:23:16 PI: Oppia. (spells Oppia).org? The introduction to Irish thing?

00:23:22: Yeah, I used that.

00:23:23 PI: What did you think about it?

00:23:24: It was simple and easy to understand

00:23:26: I thought there'd be more to do but still, it works well with my computer and my phone so...

00:23:31 PI: Good, yeah. So you'd like more of them?

00:23:34: Yeah, it's just a simple, quick lesson you can go through and review whenever you need to so...

00:23:40 PI: Yeah.

00:23:41: I normally went through it like really close to the beginning of class just to see if I understood what I was taught on Duolingo. Usually I did.

00:23:48 PI: The difference there is that there's some technologies you're using kind of prior to the class and there's other ones that you're using every other day throughout the week.

00:24:00: Yeah.

00:24:01 PI: Yet you can't record a video. (laughing)

00:24:03: (group laughter)

00:24:04 PI: Yes, yes, okay.

00:24:06: Yes that is true.

00:24:07 PI: So, what, Duolingo would be the one you're using constantly?

00:24:10: Most often, yeah.

00:24:12 PI: SpeakApps, how often are you logging in?

00:24:15: Every time I get an email from you. (laughing)

00:24:17: (group laughter)

00:24:17: (laughing) Every time you get an email.

00:24:19: (group talking over each other - inaudible)

00:24:23 PI: Okay, just to make sure we're in the same place.

00:24:25: Want to talk about the copy?

00:24:27: Yeah.

00:24:28 PI: Yeah, em, and then other ones just weren't specified.

00:24:33: When we were doing them that required them(?)

00:24:35 PI: Yeah, okay.

00:24:37: If this were a class I was taking for credit I would log into Speakapps and log off just to be more sure that I wasn't missing anything but I felt a little more laid back so I wasn't too worried about that

00:24:48 PI: Okay, I love your honesty. So moving on to the face-to-face classes. What did you like about the face-to-face classes and what did you dislike about the face-to-face classes?

00:24:56: (long silence)

00:25:07 PI: So what did you like?

00:25:09: I liked that you forced me to actually speak. (inaudible)... very well. I felt more comfortable towards the end of the class but as soon as we walked in you were like "get up!" and it was like "ugh okay".

00:25:23: I liked it that you forced us to speak and I hated it that you forced us to speak.

00:25:28 PI: So it was both?

00:25:30: It was stressful.

00:25:31: There was a lot of anxiety coming into the class.

00:25:35: I thought it was a little difficult, at least for the classes that I did go to because I stopped going. Um... because everybody's pronunciation was a little bit different because we were mostly referring to the vocab sheets so it was hard for me to understand other students, or to be understood by other students because our pronunciation was different so it was a little disconnected. But then when you said it I was like "oh okay". There it is.

00:26:04: I felt much less high stakes talking to other people who also didn't know what was going on.

00:26:12 PI: Did you guys get used to each other's Irishes?

00:26:15: Yeah I started to be able to understand people.

00:26:17: Yeah I think so.

00:26:19: Or if we couldn't we'd just stare at each other until we could...

00:26:23: Or just point at the sheet.

00:26:24: (laughing) Yeah.

00:26:25: Until you came down because we looked lost.

00:26:26: (group laughter)

00:26:27: Or ask you how to pronounce something.

00:26:28 PI: Okay. So what did you dislike most about the course? So you said the speaking, right, so it's like a love/hate relationship there.

00:26:40: About the course or the...

00:26:44 PI: Sorry, the face-to-face classes.

00:26:47: The love/hate relationship with the speaking part sort of sums it up for me.

00:26:51 PI: What about the listening portions of the classes?

00:26:54: That was always good.

00:26:56: I enjoyed those.

00:26:57 PI: You enjoyed those?

00:26:58: They helped a lot. Just to like hear a conversation.

00:27:01 PI: Okay. Do you think the ratio between the two was right in classes or does there need to be more...

00:27:07: I think the class could have gone on longer.

00:27:10: I'm gonna say more listening.

00:27:12 PI: More listening.

00:27:12: I feel like we did a good amount of both things but we could have had an hour-and-a-half instead of an hour. That would've allowed for more time...

00:27:20 PI: More exercises?

00:27:20: Yeah.

00:27:21 PI: Do you feel everyone got enough support in these exercises?

00:27:29: (group talking) Yeah.

00:27:29 PI: Yeah? Okay. Em... now. This is kind of touching on what you said about if you were taking it for credit. Was it difficult to keep up with the course's workload and the assignments, forms etc?

00:27:49: Yes.

00:27:50: Yeah.

00:27:51 PI: So it was. Okay.

00:27:52: Not really for me.

00:27:54 PI: Okay so we'll go around. Why was it difficult or not difficult?

00:27:57: I think maybe because it was a class I didn't really plan to have until maybe the second week of classes here when it did start. And then I had to shift my schedule to accommodate studying for this class and making sure I'm prepared for each class and then I ended up failing, and all of those aspects and I eventually said you know I'm too far back so I might as well just...

00:28:26 PI: Cut your losses?

00:28:32: I didn't want to cut this but then I said I'm too far behind and I'm not going to catch up.

00:28:34: I liked coming. I think there's still one recording that I haven't turned in but like the same way that I like doing Duolingo... there's no way to immediately find a quiet room on campus to record something and I spend 90% of my time on campus. And the other 10% is the hours from like 4am to 7am. So it was just hard for me to find that time and I also have a very poor schedule.

00:29:00 PI: Okay. Very busy.

00:29:07: One thing that was lost through my recording is that sometimes even though it takes like 30 seconds to make a recording. A little bit of planning goes into it but also just having that situation where you can just speak Irish freely clearly enough that your phone can pick it up. Sometimes I'll be in my apartment thinking "will my roommate hear my speaking Irish to myself?" It was a little weird so I'd just wait sometimes. (laughing)

00:29:30: My roommates definitely heard me and definitely laughed at me.

00:29:31: (group laughter)

00:29:35 PI: Okay, so you all had... not a privacy issue but a performance anxiety issue?

00:29:44: Just a space issue.

00:29:45 PI: So was there some assignments that you were like, nah I won't do that one but this one I can do because it's more convenient or whatever else like that. Was there certain, in your own mind, things that were more pressing or that you gave more urgency to?

00:29:59: Yeah. Well, there was a (inaudible)

00:30:06 PI: I'm sorry?

00:30:06: Things that had, like, concrete dates. So the Soundcloud recording would say this is due on this date so I would do it at that point.

00:30:16: I would do the Duolingo a lot more just because I was on it, but the Soundcloud you would be like, someone didn't give it to me! And it was me. And by the time I went home and did it it was like four weeks later.

00:30:31 PI: It wasn't just you.

00:30:32: There was that and like the review sheets. I think I did three of them at once and finally got them to you.

00:30:44: The review sheets were the one thing that I did as soon as I got them.

00:30:48 PI: Okay, yeah. You were all very good on those. Which was good.

00:30:53: For Duolingo, like, um... beat 100 XP by this date and that was pretty easy. Then there was one that was like we had to beat this specific unit by this date, and I had to do 100 XP everyday to get to that. Then the second assignment was to do something we had already done necessarily to be able to do the one the week before. So I had to do nothing. I think it's good to have specific units due but maybe having them within reasonable bounds or more often would be nice so you don't accidentally fall too far behind.

00:31:27 PI: I get you, yeah.

00:31:31: I had the same thing. There was one, we had to do verbs and I was like six behind and I had to do a whole bunch that we really weren't focusing on but it wouldn't let me jump past right to the verbs.

00:31:41: I think a big part of that for me is that I would do the review for XP to make sure everything was bold and I would, like, not move forward because I wanted to do the review.

00:31:54 PI: Okay.

00:31:55: You liked having the full...

00:31:57: I did. It's not anymore. I started just doing that. It's really terrible. My basic is still...(inaudible)

00:32:05: I can never really be sure sometimes how far ahead I should really be moving. Should I be reviewing or should I be just chugging ahead and doing the whole of Irish Duolingo at once?

00:32:15 PI: As I said at the beginning of the course, I'm going to set a minimum but I want everyone to be doing 100 XP. Like, remember, I said this a couple of times.

00:32:26: Yeah.

00:32:27 PI: So if you wanted to go ahead that would have been brilliant. I wanted you to have 100 experience points or in and around 100 each week. So when I actually specified something, within the course's framework, you should have already been there. Although I know you weren't. But I was trying to push people a lot because that's an interesting tension. So, em, was it more difficult to attend the classes or complete assignments?

00:32:54: Complete assignments.

00:32:54 PI: Complete assignments. Okay.

00:32:56: I mean, classes are scheduled, so you don't really have to think about how you're going to do it.

00:33:03: (group laughter)

00:33:03 PI: (laughing) Okay. Right. It's just blocked out. How did you find the blend between what was happening online and what was happening in the following classes?

00:33:17: For me it was nice just because this was my, literally, busiest two months of the whole entire year - September and October - and my final deadline was yesterday so I'm, like, free now. Now I wish the class had only started. But it's nice that for the days I did miss I can still kind of review and keep up, sort of. But, I mean, I liked the blend a lot.

00:33:45 PI: Okay.

00:33:46: Whenever something that we had discussed in class came up on Duolingo I got really excited. Duolingo teaches a lot of things that weren't covered in class which is good, but also when you see something you recognise and understand, like, okay so this is actually used. It's very, I don't know, satisfying and reassuring. I like the balance of, like, having new material and reviewing old material.

00:34:12: But by the same token, it was confusing sometimes not to see a link between what we were doing with the sheets and your recordings and editing for example, and class, versus Duolingo.

00:34:32 PI: Okay, yeah.

00:34:33: I guess I had expected that one would support the other.

00:34:36 PI: More directly, or just...

00:34:38: More directly.

00:34:39 PI: ...or just support?

00:34:41: No, just more directly. I mean early on with the food and stuff, and the main verbs like to eat, to drink, those kinds of things that we explored in class. But then as we went on I wasn't seeing the links. For me having more sources of input on similar issues is more helpful than less helpful.

00:35:09 PI: Okay.

00:35:10: I mean, Duolingo isn't structured so that... there are groups of things that you need to learn at a time but it's not structured in a way that we're gonna talk about this and then this and then this

and then this. Um... which a class kind of necessarily is because that's just how time works. So... it didn't, it wasn't always like a one-to-one course line like we talked about in class to what was happening on Duolingo. But like Cass said, seeing things in either setting that we had already done in the other one was always exciting.

00:35:40 PI: Yeah, yeah.

00:35:41: I felt that I was, um, learning a lot of things on Duolingo that we weren't learning in class. I don't know if that's a good or bad thing or not. We don't need to necessarily practice talking about ducks or whatever in class everyday.

00:35:55: (group talking over each other - inaudible)

00:36:02: I have my screenshot

00:36:05: But um, I did feel like on Duolingo we were learning both words and the grammatical stuff and not reviewing them in class. I think at least reviewing things from Duolingo in class would have helped. So I'm not learning things entirely on my own.

00:36:25 PI: Okay.

00:36:26: There were times that, like, you asked me for a verb that I knew because of Duolingo. So it forced me to recall and strengthen that stuff.

00:36:35 PI: Okay. Would a more overt description of why things are happening and why I'm organising things the way they are be more helpful to you?

00:36:44: Yes.

00:36:46 PI: To see my logic behind it?

00:36:47: It's not that I... I...

00:36:50 PI: Yeah, okay.

00:36:51: I think that would depend on the group of people you have. We're obviously quite special.

(laughing)

00:36:58: (group laughter)

00:36:59 PI: Indeed, indeed.

00:37:01: I did think some of that was because I'm an older learner I was looking for something more traditional. It took me some time to get used to the hybrid approach to it. In fact, the first day I went home I looked at your photocopy to find the book online so I could order the book.

00:37:19: (group laughter)

00:37:21: That's how I was comfortable with having tech to work with. Sort of underpinning and underlining which is sort of what Duolingo did. I didn't feel we always went back to Duolingo to connect with what we did in the class.

00:37:33 PI: Okay.

00:37:34: See, for me, Duolingo was more just for vocabulary. It was where I learned words. But I wish it had more on pronunciation because my pronunciation of it was totally different to what it actually was. So I would learn it and then you would start talking about something in class and I would have no idea what it is, then you would write it on the board and I was like, oh I do.

00:37:53: (group laughter)

00:37:55: It's just not how it's supposed to be pronounced, so...

00:37:58 PI: Okay.

00:37:58: That was like the biggest thing for me but the actual classes helped to structure things, I guess.

00:38:01 PI: Yeah. I don't have too much input but if you kind of think of it as a Venn diagram. Em, so... what would you improve about the course? This is everything, so online, in the class, other resources.

00:38:29: It's a very small question.

00:38:31 PI: (laughing) It's a very small question, yeah. Just have a think about it there for a minute.

00:38:35: (long silence)

00:38:44 PI: Just think of the difficulties that you have. What are the difficulties that you have and how would you like to see them be addressed?

00:38:50: Maybe go back to pronunciation every few classes just to, like, remind...

00:38:59 PI: Okay. Pronunciation. Everyone's nodding their head.

00:39:04: Maybe, like, practice reading words aloud.

00:39:06 PI: Okay.

00:39:08: It helps you just to learn how certain words are pronounced and just to get used to the speech sounds in Irish.

00:39:18 PI: Okay.

00:39:19: Sometimes I found it hard to remember words because I couldn't remember how they were specifically pronounced. I would have this image of how it was spelled in my mind but it never really stuck because I couldn't say it properly, until I heard it and I'd go "oh, okay" and then I said it correctly but I would forget how to say it correctly later because I couldn't recall that image - the text in my brain.

00:39:42 PI: Okay.

00:39:44: It can be a bit tricky at times because in the course, the face-to-face class, we focused on communication, just being able to say it. But with Duolingo you have to be able to type it correctly, that could take time. It took me like three weeks to be able to type comhghairdeas.

00:39:59: (group laughter)

00:40:00: I mean it's useful too because I understand the logic behind...

00:40:05 PI: No, come on, spell it. (laughing)

00:40:07: Oh, uh... (tries to spell comhghairdeas)

00:40:16: (group laughter)

00:40:17 PI: You're nearly there. Okay.

00:40:21: Well that's a word I'll never use. Anyway, like I was saying, understanding slowly, like, the logic behind spelling words and when you use the fada, and like also to some extent the eclipses and lenition would come up in Duolingo. You just had to get used to it. It would point out whenever something happened or if something happened that you don't understand. You can look at the questions people are asking and see, oh that's eclipses we learned that like ten units ago. Like I said, the course is more about speaking so...

00:41:00: It's like, I think, I personally would learn pronunciation in a language more easily if it was very explicitly spelled out to me how the text is pronounced. I know for some languages that doesn't work like English, of course, but just like maybe a whole class that was just dedicated to - these are the conventions that Irish orthography has and this is the IPA that you would... because I found some other resource, I'm not sure if you had posted it but it was an Irish IPA translator

00:41:39 PI: That was Abair?

00:41:39: Yeah. It was Abair. So it would put it into IPA for me and I would just go, "oh, that's how you say it."

00:41:48: I didn't find that, it would have been helpful.

00:41:50: We talked about it at the beginning of the course but at that point I hadn't read any Irish words yet. I didn't have anything to like apply it to. So going back to it later would have been helpful.

00:42:04: We could do like pronunciation quizzes, or some sort of assessment.

00:42:10 PI: So you guys would like a wee sliver (?) of the course. The real emphasis of the course would be on pronunciation.

00:42:19: Showing, for example, what the different strategies would be for using these sites, like um, how would you use this? How would you use this? How would you use this? And then people like Learner 10 who haven't learned a language for a really long time and haven't used the technology and don't know how to apply it to their learning will be able to see, "oh, okay, I can do that." Or, "okay, that makes sense to me."

00:42:47 PI: So more training in metacognitive strategies to utilise these tools more effectively.

00:42:51: Well also scaffolding the technologies themselves. To introduce us to too many different technologies I think can overwhelm people. I think we all seem to have settled on things that we enjoy the most. And those are the ones we have kept with.

00:43:08 PI: Do you think that the course started off too tech-heavy, or was it just the right amount? Was it was too much at once?

00:43:17: There was a lot of information.

00:43:19 PI: It was a lot of information? So space it out even more.

00:43:25: And for each site, show it to us and say, "this would be good for this". Because in the end I did try to use some of those dictionary sites and I got frustrated so I just said, "okay, I'm just going to listen to Oisín and mirror his pronunciation."

00:43:38 PI: Okay, alright. Em...

00:43:44: But in the end, you can let people decide then which ones they want to use if they all do relatively the same thing but in different ways.

00:43:51 PI: Yeah, yeah. Okay, I understand. I thought that there was enough support but I was obviously mistaken (laughing).

00:44:05: I think you've been through(?) the millennials. They can be shown how to use particular... to address strategy use and strategy learning with different technologies.

00:44:18 PI: So do you think that maybe ten or 15 minutes, over the face-to-face class, like one class a week just to focus on the specific use of technology, would be beneficial to you?

00:44:31: We're asking (inaudible)... you know? As homework, use this, and then come back and say, "okay how did you use it? How did you find it?" Or "what didn't you find, let me show you where it is."

00:44:44 PI: Yeah, okay. Em, this is great. Those are the difficulties that you have. With the Irish language though, specifically, what was the biggest challenge for you?

00:44:55: Oh God, why would anybody make lenition and eclipses?

00:45:00: Those were challenging. I could hear a word and be like, "I don't know that word," only to find out it was just a 'g' stuck in front of a word I already know.

00:45:10: Even with the Duolingo grammar it was like, "okay, here you go" and gave a million different ways to know the rules and say, "see, now it's easy." Maybe I'm just weird but I don't really have the brain to remember all of them over the next couple of weeks.

00:45:27: Or all 77 prepositional pronouns. In a chart.

00:45:29: (group laughter)

00:45:30: If they were done just a little more sequentially I could deal with it but... It was definitely like every time eclipses or lenition came up and I didn't catch it or I didn't remember to type it in, I was like "ugh, Irish (inaudible)".

00:45:43: (group laughter)

00:45:45 PI: Eh... okay. Yeah, they're just a feature of the language. It is what it is, so...

00:45:53: You mentioned the prepositional pronouns. I went searching for them and found a page and I really found it helpful because I was always referring to it with, you know, 'orm' is that with or is that to? And then, those were a challenge for sure.

00:46:08: Yeah those were hard to memorise.

00:46:11 PI: So a bit more support there maybe?

00:46:13: Uh-huh. Because it's very different.

00:46:16 PI: Okay, this is good. Any of the other things that you do be wondering about?

00:46:25: The little words. Just like the 'ag', the 'ar'

00:46:30 PI: Prepositions.

00:46:31: Just why they were there. We might be a little too analytical as a group for...

00:46:40 PI: (laughing) I think you are.

00:46:41: It's funny because I didn't focus on those immediate difficulties but I also didn't focus on the testable grammar so I just tried to say a sentence instead of...

00:46:48: Put words in order in the right way.

00:46:50: Yeah.

00:46:51: I would see like, 'ag' and 'ar' and not realise that both is like the infinitive of the preposition because then there was 'agam', 'agat' because those all went along together. I didn't make that connection.

00:47:07: I never did.

00:47:09: (group laughter)

00:47:11: I think one helpful way as well was connecting... like making up easy ways to remember certain words like the sound you make when you get stabbed in the back or the kneecapping thing. It definitely does help because like a lot of Irish you can see how it's related to other European languages but other times you're like, I'm not sure how to do this.

00:47:37 PI: And what was the thing that... in the entire course... what was the thing that you most enjoyed? That was the biggest thing that you got out of it?

00:47:50: Making fun of you.

00:47:52 PI: (laughing) Making fun of me? Thanks Learner 9.

00:47:54: You're welcome, you said be honest!

00:47:57: (group laughter)

00:48:00: I liked it too.

00:48:01: I feel like I can have a conversation now, that's exciting.

00:48:05 PI: A conversation in Irish?

00:48:08: It's a very simple one with someone that's helping me, but yes.

00:48:12 PI: Any cultural awareness outcome, or historical, or identity?

00:48:16: Irish football is terrifying (laughing).

00:48:18: (group laughter)

00:48:22: Hurling is... barbarous(?)

00:48:25: I have two songs that I downloaded on my iPhone and I listen to them all the time. I can understand... well I can't understand but I can discern many more of the words than I could. I thought it was just a run on sentence. I can discern them that much better now.

00:48:44: That's good. So the cultural elements, were they important parts of the course? Should we put more elements on culture or...

00:48:50: It's an interesting part of the course. I mean in terms of like helping me to speak Irish I don't know if they really helped but in terms of being interesting, yes.

00:49:01: They were an extra motivation to learn the language.

00:49:07: Just the video of the footballer or whatever it was that you put on there, um, I actually looked up other ones. You watch one on YouTube and you just follow a whole bunch of other ones.

00:49:21: I didn't find the culture particularly interesting.

00:49:23: (group laughter)

00:49:30: I don't like Irish television. But I really liked about the words English has borrowed, or this expression has come from this. You know, like, the lore and easy peasy and stuff like that. I found that fascinating.

00:49:45 PI: Okay, cool. So there was something for everyone even if you didn't like the... did I see no blacks, no dogs, no Irish on your office... (laughing)

00:49:52: (laughing) Yeah, you did.

00:49:57: So the last thing I'm going to ask is would you continue to learn Irish?

00:50:05: Yeah.

00:50:07: Yes.

00:50:08: Would we, like in what situation?

00:50:09: Would you like to continue learning Irish and would you continue if you had the opportunity?

00:50:14: Yes.

00:50:16: And I'll probably stick with the Duolingo for now.

00:50:20: I'll probably keep doing Duolingo. I think I sort of viewed this as a one-time thing just to learn a few things. Like learn about the language, get something to talk about. And then I'd definitely be motivated to learn more if there was a bigger reason than that. If I was going to go to Ireland or something but I pretty much signed up just for fun.

00:50:50: Well there will be an aftercare home but we'll conclude that there now.

Appendix V One-on-One Interview Transcripts

Learner 1 Interview

00:00:01: Oisín: One on one focus group interview with Learner 1. How are you doing?

00:00:05: Learner 1: Well! how are you doing?

00:00:06: Oisín: I'm very good. So, em, just to state Learner 1 left the course early. Why did you leave the course early?

00:00:14: Learner 1: Because I was travelling so much and missing so much and missing so much of it so it was too hard for me to catch back up because I didn't even have any internet so I couldn't even do the lessons...

00:00:24: Oisín: The online stuff, yeah...

00:00:25: Learner 1: No... and then it just became... I do work full-time and it became too much to try to catch up on a week's worth of stuff and then stay current.

00:00:34: Oisín: Yeah. Yeah.

00:00:35: Learner 1: It was just too much.

00:00:37: Oisín: There was just too much going on in your life. Okay. So, in the time that you did spend on the course, do you feel... how do you feel that your skills within the Irish language developed? What can you tell me about that?

00:00:47: Learner 1: Well, I really loved it. I thought it was really fun. I looked forward to going to class and doing the exercises. Um... I at least go better, I learned something. I got better, you know? I understood the slender and the broad vowels. I understood some of the foundational things, I understood, finally, about the way that you use the verb 'to be'.

00:01:09: Oisín: (laughing) Yeah.

00:01:09: Learner 1: Um... you know, so I feel like I learned some foundational things. I think I never got good at being able to read and understand how things are supposed to sound.

00:01:20: Oisín: Okay. So eh... pronunciation?

00:01:23: Learner 1: Yeah. I don't think I ever really got good at that.

00:01:24: Oisín: Yeah, okay.

00:01:25: Learner 1: But... I feel like I was only in the course for a couple of weeks and I think if I had been able to do the whole thing I would've been able to do that.

00:01:32: Oisín: Yeah. Indeed. Em, so, while you were participating in the course what were the resources you used? What were the main ones you used and how?

00:01:41: Learner 1: I used the Duolingo and there was another one you had sent us. A European version of it, sort of.

00:01:48: Oisín: Oh, Speakapps?

00:01:49: Learner 1: Um... was it Speakapps?

00:01:50: Oisín: Or (inaudible)?

00:01:51: Learner 1: No it must have been... whatever you sent us in the first...

00:01:53: Oisín: Oh, the Opa explor... the explorations where you click to go ahead, was it that one?

00:01:59: Learner 1: Whatever was on the syllabus.

00:02:01: Oisín: (laughing) Okay. You used?

00:02:02: Learner 1: (laughing) I used.

00:02:03: Oisín: (laughing) Okay.

00:02:03: Learner 1: And I think it might have been Speakapps. It had a European Union thing...

00:02:07: Oisín: It was Speakapps, yeah.

00:02:08: Learner 1: Okay. And the Duolingo, and you had sent us some links for pronunciation.

00:02:12: Oisín: Yeah, yeah.

00:02:13: Learner 1: That, I used a little bit.

00:02:15: Oisín: Was that on Soundcloud or with the flashcards?

00:02:18: Learner 1: Soundcloud.

00:02:19: Oisín: Soundcloud. Okay. And how did you find the resources? How did you find using them? Which one did you like using and which one did you most dislike using?

00:02:29: Learner 1: Well the easiest was Duolingo because it had coded in the accent keys so if you wanted to spell something or do something you could use that key without having to go in and figure out where it was versus the thing that was the external resource where you could type it in and hear it, you had to type it in...

00:02:49: Oisín: Okay.

00:02:49: Learner 1: ...you had to type it in and you had to find the accent keys. Like, I found some words the accent made a difference whether it had an accent or not...

00:02:56: Oisín: Oh, it does yeah. It makes a massive difference.

00:02:59: Learner 1: And so... I felt that that was hard for me to use because I didn't have a computer that was easy to use the accented keys on.

00:03:06: Oisín: You have the... it's a PC is it?

00:03:09: Learner 1: Yeah, yeah.

00:03:10: Oisín Yeah you have to set up the keyboard.

00:03:12: Learner 1: And I hadn't done that.

00:03:13: Oisín: I probably should have done that with you. (laughing)

00:03:16: Learner 1: But that's okay because that made it that bit more challenging to use that external resource

00:03:21: Oisín: Yeah.

00:03:22: Learner 1: And... one of the things I know we talked about in class is some of the Duolingo sentences you could hear the pronunciation and some of them you couldn't...

00:03:27: Oisín: Mmm, yeah.

00:03:28: Learner 1: It was probably a resource issue but in an ideal world it would have been cool for all of them to be soundable.

00:03:35: Oisín: Yeah.

00:03:35: Learner 1: Where you could click on it.

00:03:37: Oisín: Yeah, I told them that last week. (laughing) So, what were your opinions on the assignments that I gave out, so say, there was the Duolingo assignment where we had one week where you had to complete a skill and then there was the speaking assignments as well on Soundcloud. How did you feel about those on a weekly basis?

00:03:56: Learner 1: I felt that the workload was reasonable while I wasn't travelling.

00:04:00: Oisín: Yeah.

00:04:01: Learner 1: So I felt that while I was here, even though I have a full-time job, it was fine. Um... I could never get my computer to do the Soundcloud thing where I could speak it, so I never did it.

00:04:17: Oisín: Okay, right. So that's an issue with Soundcloud then?

00:04:21: Learner 1: Yeah. And then we tried it on my phone and I don't remember... because I have an iPhone it wasn't as easy

00:04:25: Oisín: Yeah.

00:04:26: Learner 1: So like, I would say I know that I can... if there's a way... I have Whatsapp, you can speak messages into Whatsapp, or maybe another way of doing it. I just know that for people that had an iPhone it tended to be weirder and I couldn't do it on my PC.

00:04:44: Oisín: Okay. So maybe in the future there should be several ways to submit the audio files instead of just one.

00:04:50: Learner 1: Maybe.

00:04:51: Oisín: Yeah.

00:04:52: Learner 1: Maybe we could text them to you or something.

00:04:54: Oisín: Yeah, well there was meant to be something central on Speakapps but it failed so that was the reason we went with Soundcloud. So, em... did you come across any other Irish resources yourself that you used beyond what I provided you?

00:05:07: Learner 1: Yeah. There... well... I... I... just because I like languages would just basically type things in Google and just look at them.

00:05:18: Oisín: Okay.

00:05:20: Learner 1: And I don't remember what they were. It would depend on what I was doing at the time, and it was fun to see what was out there, and to see the different dialects. There's a lot. More than you would think.

00:05:28: Oisín: (laughing) There is. There's a lot of digitally managed resources. Em... so... What was I going to say? Em... so which digital resource did you most like?

00:05:43: Learner 1: I liked the Duolingo because it was the easiest. Like I said the accent things were already there, you didn't have to fuss around with anything and you could hear it. Um... that was the easiest for me typing. I did hear some of the Soundcloud videos that you made... or audios that you made, where we had the sheets where we could read along. That was the most helpful.

00:06:05: Oisín: Okay.

00:06:05: Learner 1: Because I could hear a whole (emphasised) list of phrases and read them so I could hear how they were pronounced. On Duolingo the sound bites were so small that I couldn't really hear the cadence of the language.

00:06:17: Oisín: Okay, right. I understand.

00:06:18: Learner 1: Your phrases were longer. They were more... and I know Irish isn't a sing-songy language but we could hear more how the whole depth of a conversation would go.

00:06:27: Oisín: Yes, yes, okay I understand. The next one is... what was I going to ask? The Speakapps classroom itself, what did you think of that as a layout?

00:06:40: Learner 1: I didn't... there weren't that many things on there during the time I was taking the course. Most of it was on Duolingo, except for the very beginning. So I don't really remember it.

00:06:52: Oisín: (laughing) You should log in again because there's loads of stuff now...

00:06:55: Learner 1: Really?

00:06:57: Oisín: Yeah, I've put in tons of stuff. Em... which elements of the face to face class helped you the most and helped you the least?

00:07:05: Learner 1: Well... I thought a lot about this because I knew we were going to be doing a little focus group and I know that part of your focus is, how do I do blended learning? And I've taken a lot of language classes, I speak a lot of languages. I, kind of, was sad that it was only two days a week. And, for me, it was the discipline factor. I could sit on my couch and do Duolingo with my cat. I could do that. But there was something about interfacing with a native speaker or having the class stuff that just reinforced it every day in a more meaningful way for me.

00:07:44: Oisín: Okay. Great.

00:07:46: Learner 1: Um... so, I, in an ideal world, I would've liked to see a quick class four days a week plus these exercises to do at home. And it would've helped me learn a language better.

00:07:56: Oisín: Yeah, yeah. Of course, yeah. Well in an ideal world I would've liked to do five days a week but it's just about fitting it into everyone's schedules.

00:08:05: Learner 1: Totally. And I don't mean for that to be a criticism.

00:08:09: Oisín: No, no, not at all. Yeah, I understand, obviously more frequent interaction... What did you most enjoy about the face to face? Was it the listening that we did, or was it the speaking when I got everyone talking? What was it that helped you the most?

00:08:25: Learner 1: I liked hearing you talk. I really did. And to hear how it sounds because the sounds do change depending on what words come before and after them. Whereas the people taking the course, like me, wouldn't have known how to change the sounds. But you did. So that was helpful to hear you speaking and reading some of the things on the board and even asking us questions. That was very very helpful in the face to face. At the beginning I didn't even know what you were asking but after you asked two or three people, I was like, "oh, that means that. That means that." So I could start making these associations in my brain. Um... what did I like the least? I'll tell you what I would have liked to have seen but I didn't. That I found very helpful when I started taking German.

00:09:11: Oisín: Okay.

00:09:12: Learner 1: These cards that had words on them that they would just hold them up. Like I could start speaking very minimally in like a week because the teacher would hold up these cards like, "rain", "sun", "wind". You know, like, this is the weather. So we started having vocabulary very early on. Really basic sentences but at least I felt like I wasn't mute. You know, I could say some things. And I know you did that with things like "hello" and "how are you?" but those are so canned, that once you say those things there's nothing else to say.

00:09:46: Oisín: Okay.

00:09:47: Learner 1: It would have been nice to get more nouns.

00:09:52: Oisín: And adjectives and stuff. Yeah.

00:09:53: Learner 1: Just to be able to say, like, "Hi, my name's Learner 1." "It's sunny today." Or, if we're in Ireland, "it's raining today! It's cloudy."

00:10:01: Oisín: (laughing) Yeah. I get you. We did get there in the end though.

00:10:06: Learner 1: (laughing) I'm sure. I'm sure.

00:10:07: Oisín: But you're... yeah I do get you. Maybe some things to help scaffold conversations, or physical things that you could hold that could help you scaffold the conversation a bit more.

00:10:19: Learner 1: And to help us be comfortable speaking, like, you know, she would hold up sun and be like, (speaks German). And we would all go, (speaks German). And we were like, "oh, that's sun." But it not only helps us to use the verbs in a sentence appropriately but with vocabulary. So stuff like that was really helpful.

00:10:40: Oisín: Okay. Lots of ideas now in the brain. So the next one I was going to say was, what changes or suggestions would you make to improve the course for yourself? You mentioned there having a bit more vocabulary and resources to help you scaffold. Anything else?

00:11:00: Learner 1: I think you're a wonderful teacher, so I have zero suggestions on that part. You're enthusiastic, you're supportive, you made us feel good about what we were doing and helped to reduce everybody's self-consciousness. So that was wonderful. So I really don't have any suggestions. The only thing was what I said about having pictures of things and making us pronounce them because it's helpful.

00:11:24: Oisín: Yeah, yeah. Okay. Thanks very much, that's a lovely compliment. Em... last question. Em... would you continue to learn Irish? Would you take it back up in the future?

00:11:34: Learner 1: I would!

00:11:35: Oisín: You would?

00:11:36: Learner 1: I was gonna ask you, if you come back if I could just take it again. I'm sorry I had to, just because of my travel schedule, not do it as seriously as I would've liked to.

00:11:47: Oisín: Well all the resources are still there on the course and it's all there for free. Thanks very much...(recording ends)

Learner 6 Interview

00:00:01: Oisín: Focus group, one on one interview with Learner 6. How are you doing? Are you well? Good. Okay. So, can you tell me what aims and goals did you have for taking the course?

00:00:15: Learner 6: Well, in the beginning, curiosity.

00:00:18: Oisín: Okay, go maith.

00:00:19: Learner 6: Because I did this DNA test and they said that I'm part Irish so I was curious how to speak this language.

00:00:31: Oisín: Okay. And eh, where did you want to get, what level did you want to reach after the six weeks? What was your intention? Was it just to learn a bit about the language and culture or was it to be able to have, like, a conversation or something like this?

00:00:46: Learner 6: I would like to learn about the culture. And also to communicate with some of my Irish friends. So just the basic thing and then because they know English too.

00:00:59: Oisín: Okay, yeah. Of course. Em, do you feel that you've achieved that goal?

00:01:04: Learner 6: I think that I maybe impressed him.

00:01:09: Oisín: I think you made good progress. Okay, em, so... just discussing some of the technologies. Em... what technologies do you feel or what activities that we engaged in during the course do you feel helped you develop your listening skill?

00:01:28: Learner 6: Well, I used too much Duolingo. After, lately, I started to try to listen to Internet, Youtube, TV4 or something?

00:01:45: Oisín: TG4? Yeah, that's our Irish language station. That's great.

00:01:52: Learner 6: In the beginning it was really hard because I could not understand anything. But last week I tried again and then I started to understand something.

00:02:05: Oisín: Brilliant.

00:02:05: Learner 6: It was good.

00:02:06: Oisín: Excellent. And did you feel a sense of accomplishment from that?

00:02:09: Learner 6: Yeah.

00:02:09: Oisín: That's great. Em... with regard to the speaking skill, how do you feel your speaking skill has come on?

00:02:17: Learner 6: Hmm... This is still... (inaudible) I know the word but is hard to pronounce.

00:02:26: Oisín: Yeah. Okay. Yeah. It's a bit of a tongue twister for you isn't it? Okay, so... what resources did you use the most during the course?

00:02:38: Learner 6: Well what I used the most was Duolingo.

00:02:44: Oisín: Duolingo. Okay.

00:02:45: Learner 6: But I used also Soundcloud, I think it was helpful. Yeah this Internet, this application for iPhones and I try to listen to words... They have a set of words for the day and I try to follow that. And the TV, like.

00:03:10: Oisín: Okay. Brilliant. So what areas of the course do you think were lacking or could do with improvement?

00:03:21: Learner 6: In terms of time, I think it was good for the purpose that you had. But maybe for me there could be more listening.

00:03:39: Oisín: More listening. Okay.

00:03:40: Learner 6: I know that practice in class its different to speak because there is many people. But yeah I think this is also important. I could not get maybe the same level. If I read I know more than if I speak, you know?

00:04:01: Oisín: Yeah, yeah. Okay. But em...Alright. Excellent. So what were your opinions, or opinion, about using Duolingo and the assignments that were given through the schools platform?

00:04:16: Learner 6: One thing that I liked is that, um... these assignments always seemed to know exactly where I was weak and this was good because I could practice more. I think without that I would not practice again.

00:04:32: Oisín: (laughing) As much. Yeah. Okay. Em... do you think these assignments helped you to understand more about the language and subsequently to speak it in the class?

00:04:45: Learner 6: I think so, yeah. Em... One thing that I noticed was sometimes I didn't pay attention to some points in the assignments. And then when I came for the class and you said something that attracted the attention for something. Then those assignments were clear for me.

00:05:06: Oisín: Okay, yeah. Right.

00:05:09: Learner 6: So it's not only the assignments on Duolingo but we need this, yeah, this (inaudible) class.

00:05:17: Oisín: Okay, yeah. That actually brings me to another question. Em... did you feel that the face-to-face classes and the use of technologies online, did they gel together well or were they sort of disconnected for you?

00:05:35: Maybe in the class... I don't know. I felt a little bit desynchronised with Duolingo. Is like, I wasn't doing Duolingo very fast. In the class maybe we could synchronise a little bit better. Maybe you could say, I don't know, maybe achievements to this point. Then give a kind of explanation. Even if there they have it too but is not the same thing that someone trying to explain and attracting the attention to that. So it could be easier to follow Duolingo and maybe to learn faster.

00:06:16: Oisín: Okay. Did you use any of the other resources that were posted on Speakapps? The... Oppia exercises or the Anki flashcards? Did you make much use of those?

00:06:28: Learner 6: Yes, yes. I used the cards.

00:06:30: Oisín: Okay.

00:06:31: Learner 6: Not Oppia.

00:06:33: Oisín: You didn't use Oppia? Right. Okay.

00:06:35: Learner 6: Um... yeah. Basically also the other links that you put in were very helpful.

00:06:42: Oisín: Okay. And did you find that you accessed them more or less than Duolingo?

00:06:47: Learner 6: Less than Duolingo.

00:06:50: Oisín: Less, and is there any reason for that do you think?

00:06:52: Learner 6: I think that because of my level in the beginning. So I just wanted to have some vocabulary to be able to understand the sentence and go to the grammar.

00:07:05: Oisín: Mmm. Okay.

00:07:05: Learner 6: So yeah. I think this was very helpful with Duolingo because I knew nothing about the language and I started to have some vocabulary to go up.

00:07:15: Oisín: Okay. Excellent. With regard to the speaking assignments that I gave out on Soundcloud. Did you find that they helped you prepare for the class and remember what we had covered or did you find that they were valueless? What did you think of them?

00:07:32: Learner 6: I think they... the experience that I had most that attracted more of my attention was with the family exercise. Because maybe it was the most difficult part that I had in this class. And this was very helpful to record and listen to myself. So I could try to say the words more correctly when I did this exercise. And before that I could not even try to say them.

00:08:08: Oisín: Okay. Em... with the digital resources what was your most preferred thing or tool that we used?

00:08:23: Learner 6: Well, I used more Duolingo but I know that it's not complete.

00:08:34: Oisín: Okay, indeed. That's fine. And what was your least preferred thing, that was in the course, online?

00:08:39: Learner 6: I think that the link that you mentioned about the... well the link that you could put the word and then listen the word.

00:08:49: Oisín: Abair. Yeah.

00:08:50: Learner 6: Yeah. Um... it's okay but the pronunciation seems not so as we had in the class.

00:09:00 Oisín: Not as natural?

00:09:00: Learner 6: Yeah.

00:09:01: Oisín: Okay. That's fine. Em... em... which elements of the face to face class em... did you most like and least like? We'll start with which element of the face to face class did you most enjoy?

00:09:17: Learner 6: I liked the... dynamic to try to speak with the others. This was good. But in the beginning was hard because nobody could help with the other one.

00:09:31: Oisín: Yeah. Indeed. Yeah.

00:09:34: Learner 6: We didn't know if we could say correctly or not.

00:09:37: Oisín: Okay. Right.

00:09:39: Learner 6: Maybe if we have um... I don't know some kind of... someone following more and trying to correct in the beginning it could be helpful.

00:09:53: Oisín: Perhaps some more example exercises from native speakers?

00:09:57: Learner 6: Maybe.

00:09:58: Oisín: ...prior to the course or maybe a one on one tutorial or something like this before the course?

00:10:06: Learner 6: Yeah because when we had the three it was really good because we could exchange some experience with some native Irish.

00:10:18: Oisín: Yeah, when Mairéad and Caitríona came in. Yeah that was a fun class. And what was your least favourite thing in the face to face classes? What did you least enjoy?

00:10:28: Learner 6: Um... I don't know. (laughing) Nothing.

00:10:31: Oisín: (laughing) Nothing? Okay. Well, that's alright. Em... did you come across any other resources yourself? You mentioned TG4 that I hadn't mentioned and YouTube. Did you come across anything else that helped you with Irish?

00:10:47: Learner 6: Uh... I used some podcasts but it's hard to... maybe you could improve that to give some directions to say which kind of podcasts would be better to start to listen to.

00:11:01: Oisín: Okay. What podcasts did you use?

00:11:06: Learner 6: Some podcasts that tried to teach.

00:11:09: Oisín: Do you remember their names?

00:11:11: Learner 6: I can send it to you.

00:11:12: Oisín: Okay yeah.

00:11:14: Learner 6: I checked also yesterday. Uh... but yeah some of them is not just to teach Irish but in the middle they start to speak English. It's just confusing.

00:11:26: Oisín: Yeah, indeed. And they speak Irish English as well.

00:11:30: Oisín: Now. What changes or suggestions would you make to the course to improve it? What would you do if you were to do it?

00:11:39: Learner 6: Well, I would say in the perspective of what I felt. I think this... in the class in the beginning maybe if we have someone following the other in the beginning and after when we have more confidence and we know it is okay to do the... maybe one to follow better in the beginning and say how you are saying things and it would be helpful.

00:12:05: Oisín: Okay, so more support for pronunciation in the beginning.

00:12:07: Learner 6: Yeah.

00:12:08: Oisín: Okay. That's great. Em... and now that the course is over, what do you feel you need to work on?

00:12:18: Learner 6: Pronunciation.

00:12:19: Oisín: Pronunciation. Okay. Any other area of the language that you feel you need to pay attention to or that you would...

00:12:27: Learner 6: Well... um... writing I know is still difficult.

00:12:33: Oisín: Writing. Okay.

00:12:35: Learner 6: It was not the focus of the course.

00:12:37: Oisín: Indeed.

00:12:38: Learner 6: Maybe I will practice this and pronunciation too but I think writing will be less than pronunciation.

00:12:45: Oisín: Okay. And, how do you feel about the level of your Irish after you've completed... after this five and a half weeks?

00:12:52: Learner 6: Well, I think I improved a lot because I could not even say the word, eh... man... or woman...

00:13:02: Oisín: (laughing) Yeah.

00:13:03: Learner 6: ...or woman and now I can say some sentences. I think this is improvement.

00:13:09: Oisín: Yeah, indeed. And, last question... Final question. Em... Will you continue learning Irish?

00:13:17: Learner 6: I will try. This was one question that I brought up because I don't know how to do it. I know that in my city, in Brazil, Curitiba, we have some people from Ireland but I don't know about the course. So I need to check. Probably I will not have the support there. And I will need to find some online resource to continue there. Maybe some online classes and if you know some online classes that I could take by skype or things like that.

00:13:54: Oisín: Mmhmm. Yeah.

00:13:55: Learner 6: Things like that. This I think will be the way to continue that.

00:13:59: Oisín: Well I can certainly tell you some things. Well, thanks very much Learner 6.

That's it...(recording ends)

