

Wimba – The Story So Far!

Introducing Live Virtual Classrooms to Distance Education Programmes

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Introduction

Wimba Collaboration Suite is a suite of products that replicates the classroom environment online. Products include Wimba Classroom, Wimba Pronto and Wimba Voice. The main focus of this paper is Wimba classroom which consists of features such as audio, video, chat and whiteboard. It is a web based live classroom tool which allows participants to interact synchronously mimicking a traditional face to face classroom.

This paper will discuss the background, rationale for and implementation of live virtual classroom software across all programmes (Undergraduate and Postgraduate) offered through distance education by Oscail, Dublin City University (DCU).

The paper will start by describing the initial pilot project where live virtual classroom software was introduced to the Bachelor of Science in Information Technology degree programme and the subsequent evaluation of this pilot project.

One of the key considerations for the introduction of any new software is the need to support and train relevant staff and students. Wimba was itself used for the implementation of this training. This paper will outline the support required and summarize the key lessons learned for the future inclusion of live virtual classroom software.

The paper will include a report on the evaluation of the experiences of users and support staff using live virtual classroom software in a distance education setting. Then it will examine the possible future potential for the use of the software across all programmes offered by Oscail and the benefits to various interested groups including traditional face-to-face students.

Background to Oscail

The nature of distance education generates particular challenges not encountered by on-campus students, in particular a feeling of isolation, communication issues and

course design and delivery; therefore let us start by outlining the position in which we find ourselves.

Distance education students often report a feeling of isolation (Wang, 2010) and while various communication tools are available such as forums and email, this only provides an asynchronous form of communication. Often students require an immediate answer to a query from their tutor and the live virtual classroom setting can facilitate this communication (Schullo et al, 2005).

In the model of distance education followed by Oscail, face-to-face tutorial support is available in a number of study centres throughout the country but attendance is not compulsory for students. One of the key challenges Oscail faces is the decline of student numbers at tutorial centres. In addition to this, the development of emerging technologies has not only enabled us to provide more online learning support but has also seen a surge in demand from students for the utilisation of these technologies. In a 2010 student experience survey, when students were asked to suggest improvements to the programme, they asked for more access to video tutorials and live online teaching sessions.

A significant element of the Oscail quality control assurance policy for programmes is the continual review of the design, development and delivery of course materials and resources. Oscail students are provided with specifically written self-instructional course texts (containing self assessment questions and answers), which take the place of the traditional full time lectures. These texts are designed, developed and written by subject specific academics. Part of Oscail's quality assurance policy requires that these texts be reviewed annually by senior academics which results in a cycle of editing, updating and re-writing. Prior to this pilot project, in addition to these texts, learning had been supported through face-to-face tutorials and online support conducted mainly through the use of forums in the online virtual learning environment Moodle and email.

Profile of the Oscail Student

The age profile of Oscail student's ranges from 18 to 85 years with most students choosing to study with Oscail as it is location-independent and provides a flexibility which is unavailable to full time students. A small proportion of students are located abroad but the majority reside in Ireland. One of the challenges facing distance education students is face-to-face interaction with academics and tutors. A solution to this is the provision of a limited number of tutorials in various locations around Ireland which cater for the majority of students but attendance is a challenge to those living abroad or for those students with family and work commitments.

Rationale for Introducing Live Virtual Classroom Software

As mentioned earlier the provision of tutorial support for distance education students is a major issue. Up until recently tutorials were provided at a number of study centres in various locations around the country; however the feasibility of providing numerous tutorial centres has been impacted by decreasing student attendance at

remote locations. There are various reasons for the decline in student attendance at tutorials including the cost of travel and accommodation, childcare and work commitments.

While there is a financial aspect linked to decreasing student attendance at tutorials there are also pedagogical implications. A priority for Oscail is the provision of high quality tutorial support for all Oscail students, regardless of location. With this in mind the decision was taken to investigate the potential of live virtual classroom software. The recent developments in these online technologies and in access to broadband has allowed us to change the way in which Oscail provides learning support to its students by providing real-time virtual tutorials.

Implementation

Prior to the commencement of the 2010/2011 academic year a number of live virtual classroom software packages were evaluated within the University before the decision was taken to use Wimba live classroom. Key members of DCU/Oscail staff were trained on the use and functionality of Wimba software. Wimba was introduced to over 50% of the modules in the Bachelor of Science in Information Technology degree programme. Oscail is in a unique position in that its tutors come from a range of external businesses and third level institutions. Oscail staff developed a specific training plan for our tutors in the use of Wimba. The tutors involved in the modules selected for the pilot project were then trained on the use of Wimba prior to the commencement of the academic year.

Students were informed of the technical specifications, software and hardware requirements for using Wimba. They were also advised to run the Wimba setup wizard prior to engaging with the Wimba sessions. Technical support was provided at each session by Oscail staff in addition to support offered by the Wimba technical team.

A major element in the introduction of Wimba to Oscail programmes was the development of a new module called Management Sciences B – Enterprise and Emerging Technologies. The teaching of this module consisted of a blended learning approach integrating written course materials, structured course work in the virtual learning environment and tutorial support in Wimba. Students had a face-to-face introductory session at the beginning of the academic year with all other tutorial support being provided mainly through Wimba and the online virtual learning environment, Moodle. On the other modules chosen for the pilot project, Wimba was introduced alongside face-to-face tutorials.

Following the completion of the pilot project, at the end of the academic year, a student evaluation survey was conducted to obtain feedback on the student experience of using Wimba.

Support Required

As with the introduction of any new system, a certain level of technical support is required when introducing online live virtual classroom software. However, in addition to this technical support, there is also a need for pedagogical support as online teaching requires a new set of skills on both the part of the teacher and the learner.

Key Lessons Learned

Based on the findings of this research, from experience of training tutors in the use of Wimba and conducting various Wimba sessions over the course of an academic year, we conclude that the most important points for consideration when introducing online tutorials are:

- If a setup wizard is available run through the process prior to the first session.
- When dealing with large groups of participants, set ground rules at the beginning of the session, for example ask students to raise their hand before asking a question.
- Disable the talk function for students if there are more than four in a session in order to prevent participants speaking over each other. For example, enable the talk function to individual participants when they raise their hand to ask a question.
- If there appears to be an issue with low bandwidth, we recommend that the video function be disabled. Communication can then be conducted through the audio and text functions.
- Ensure good quality headsets and cameras are used to maximise the potential of the session.
- When doing the training make sure each participant gets plenty of practice in the use of all tools.
- Run a number of training sessions to familiarise participants with the various functions and capabilities of the software.
- The tutorials should be short as they are quite intensive and demanding.
- Training should ideally include technical training, class management and pedagogical techniques.
- Have a designated technical assistant available at the beginning of the session to deal with issues which may arise so that you are not trying to teach and provide support at the same time.

Evaluation Findings from the User Perspective

The results of the student evaluation survey were analysed through a combination of qualitative and quantitative analysis. 159 students were invited to complete the survey and the response rate was 39% (62 students).

Our finding that students are divided in their preference for online versus face-to-face is similar to findings of adopters of virtual classrooms elsewhere such as Schulman

et. al (2009) who reported that not all students were eager at first to change their existing mode, though others were.

Wimba tutorials were a non-compulsory component of the modules however 66% (41 students) of the respondents reported that they had taken part in at least one Wimba session during the pilot project. This showed the enthusiasm and willingness of the students to try out the new software once it was made available.

Students self-reported an excellent level of proficiency in the use of computers and technology with a high average likert score of 1.46 (1 = excellent; 5 = poor). In addition to Wimba there are various other software tools which facilitate synchronous online discussions such as Skype, Elluminate and Adobe Connect. 44% (18 of the 41 students who used Wimba) of respondents had used something like Wimba previously.

The success of technology depends on its positive impact on student learning (Bates cited in Brown McCabe & Meuter, 2011). Oscail's primary goal for the use of technology is to enhance student learning, and not hinder or create an additional barrier. This research has shown that connecting to a Wimba session is relatively easy with 48% (30 students) of students reporting that they did not experience any problem accessing or connecting to Wimba. Interestingly, of the 18% (11 students) that did report problems connecting to Wimba, all of these students had run the Wimba wizard prior to the Wimba session. The main connectivity issues that emerged included internet connection problems, bandwidth and java issues.

When asked if they experienced any issues with audio or video, 44% (18 students) reported that they did not experience any issues while 56% (23 students) experienced varying issues. The main audio/video issues that arose concerned bad quality of sound due to bandwidth connection and poor headset quality.

There are a number of communication tools within Wimba classroom which allow students to communicate with the tutor and their fellow students such as talk and text. Students did not display an overwhelming preference for either, with 49% (20 students) opting for the talk feature and 51% (21 students) favouring the text feature. A key to the success of software in the educational environment is the ease of use of the technology. In this case students rated the usability of all features of the Wimba interface with a high average likert score (1 = very easy; 5 = very difficult) of 1.64 (talk feature), 1.82 (text feature), 1.81 (yes/no feature) and 1.86 (hand raising feature).

Students who attend tutorials are more likely to complete their studies and achieve higher grades (Massingham & Herrington, 2006). The flexibility of distance education is one of its main advantages and therefore attendance at tutorials cannot be made compulsory. One of the challenges facing distance education providers is balancing flexibility with equality of access to academic support and resources. Wimba classroom provides us with a tool to address this issue by allowing tutorial sessions to be recorded and archived. This research has shown that 83% (34 students) accessed the archived sessions for their modules during this pilot project.

While in general, students reported a positive experience of using Wimba with a high average likert score of 2.03 (1 = excellent; 5 = poor), there is one contradiction that is

worthy of being noted. Of the students that took part in Wimba sessions, 61% (25 students) said they would prefer face-to-face tutorials to live online classroom sessions and of the remaining students who did not participate in Wimba sessions 67% (14 students) expressed a preference for online sessions.

When asked if students who had participated in live online classroom sessions had any advice for students who had not used Wimba previously, the predominant response was to run the Wimba setup wizard to alleviate any potential issues which may arise throughout the session. Below are some further comments from students:

'Make sure you run through the checklist long before the session is due to start, to make sure you've ironed out any technical issues'.

'Try it. Very easy to setup and use'.

'Go for it, its the future, saves you going out in traffic, bad weather etc...in my opinion it's definitely the way forward.'

Future Plans

Due to the success of the integration of live virtual classroom software to the Bachelor of Science in Information Technology programme, it is planned to incorporate it into the remaining undergraduate and postgraduate programmes offered by Oscail in the next academic year. The next phase of the project, which will commence in August 2011, will see the tutors on the BA in Humanities programme trained in the use of online live software followed by the tutors in the postgraduate programmes. Students on these programmes will then be offered tutorial support either in a face-to-face centre or an online virtual centre.

The future success of Wimba may impact on the future provision of face-to-face tutorials in remote study centres throughout the country. While there are various reasons why the provision of tutorials in these centres will become unfeasible, online live classrooms may provide a crucial alternative to the students impacted in these centres.

During the pilot project Blackboard acquired Wimba and another web conferencing tool called Elluminate and created a new product called Blackboard Collaborate. It is expected that Oscail will move to this new software as soon as it becomes available. Support staff in Oscail who received a brief trial of the new Blackboard Collaborate software were very positive as it appears that the new interface has been modified to enhance the usability of the software which should improve the student and tutor experience.

Live virtual classroom software is going to have a significant influence on the future design of course materials in Oscail. The combination of advances in technologies, integration of software systems, wider access to broadband and falling costs of hardware and software will mould the future of distance education design and delivery. Prior to these advances, distance education in Oscail took the form of static printed course materials with students having to travel to access academic support and resources. The Oscail course design and delivery team see the direction of

pedagogically sound course teaching materials and resources moving away from static delivery to a much more interactive and engaging approach. Assessment is another major component of teaching and learning and so the use of live virtual classroom software will allow for more dynamic and interactive assessment methods.

Conclusion

The pilot project investigated the use of live virtual classroom software in distance education as a tool to support student learning. The results of this research have shown that live virtual classroom software is generally easy to use and generates a positive user experience. While a small number of students reported difficulties with the audio, generally there were no major issues with the functionality of the technology.

Additionally this research has shown that the archived sessions were incredibly popular. This increases the opportunity for wider access to tutorial support for those who are unable to participate in face-to-face or live virtual classroom tutorials at the designated times. The ability to record and store tutorial sessions provides an additional teaching aid that was previously unavailable to Oscail students.

A further outcome of this investigation is the potential for an increased student base as with this software the University is in a position to offer greater support to students regardless of geographic location. This software optimises and modernises the traditional advantages to distance education.

While in general the result of this research has a huge impact on distance education providers, it also opens up possibilities for traditional campus based courses to be converted for online delivery. This will allow for more flexibility between Faculties and Universities.

It has become clear that distance education in the 21st century has made huge advances through the development of emerging technologies and through continual research and development the potential is there to tackle the challenges of lifelong learning.

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