Theory to Practice:

Exploratory study on dental nursing graduates' experience of professional practice placement and how effective it is for preparation for employment

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DECLARATION

I hereby certify that this material, which I now submit for assessment on the programme of study leading to the award of Doctor of Education is entirely my own work and that I have exercised reasonable care to ensure that the work is original, and does not to the best of my knowledge breach any law of copyright, and has not been taken from the work of others save and to the extent that such work has been cited and acknowledged within the text of my work.

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DEDICATION

This work is dedicated to my parents, Moira and the late Charles O'Connor who made significant sacrifices for their four children. They inspired us and taught us the importance of hard work and determination, always a source of encouragement and support, instilling qualities such as kindness, empathy and unconditional love.

Thank you!

My gratitude also extends to my AIT colleagues Ms Eimear Kelly, Ms Nuala Harding, Ms Miriam Croke, Ms Una O'Connor and everyone in AIT who was always there when I needed help.

I want to sincerely thank my family for their constant moral and practical support. My mum Moira, my late father Charles, brother Joey, sister Carola, nephews Conor, Oisin and Darragh Mc Gowan, brother-in-law Glenn McGowan and sister-in-law Brenda Carey-O'Connor. Thank you for understanding my wish to complete this research study.

A special thank you is extended to my other sister Siobhain O'Connor-McGowan who took this journey with me, she too will be graduating along-side me. We worked well together, there for one another when we needed support, encouragement and understanding. I would not have completed this journey without her.

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Education is not the filling of a pail, but the lighting of a fire.

~ William Butler Yeats

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LIST OF ACRONYMS

AIT	Athlone Institute of Technology
AMA	Australia Medical Association
B.Sc.	Bachelor of Science
CPD	Continued Professional Development
Dept.	Department
DOES	Department of Education and Skills
DN	Dental Nurse (ing)
ESRI	Economic and Social Research Institute
EA	Educational Audit
EI	Emotional Intelligence
ETB	Education and Training Board
EU	European Union
EQ	Emotional Quotient
FETA	Further Education and Training Authority
GDC	General Dental Council
H.C.	Higher Certificate
HEA	Higher Education Authority
HSE	Health Service Executive (Ireland)
IASCE	Irish Association of Social Care Education
ICE	In Case of Emergency
MOODLE	Modular Object-Oriented Dynamic Learning Environment
NSHE	National Strategy for Higher Education
OECD	Organisation for Economic Co-operation and Development
OSCE	Objective Structured Clinical Examinations
OCPE	Observational Clinical Proficiency Exam
OLRS	Oireachtas Library and Research Service
PLS	Plain Language Statement
PPP	Professional Practice Placement
QQI	Quality and Qualifications Ireland
REAP	Roadmap for Employment Academic Partnerships
SOLAS	An tSeirbhis Oideachais Leanunaigh agus Scileanna
TY	Transition Year

UK	United Kingdom
UMAT	Undergraduate Medicine and health Sciences Admission Test
UKCES	United Kingdom Commission for Employment and Skills

ABSTRACT

Title: Theory to practice: Exploratory study on Dental Nursing (DN) graduates' experience of Professional Practice Placement, and how effective it is in preparation for employment.

Background: Research has shown that Professional Practice Placement (PPP) is an important part of the learning process. Experts noted that it advanced the learning skills, confidence and professional competency and ensured a smooth transfer to the workplace.

This study explored: The DN graduates' views of their work placement experience. Research examined the graduates' views, perceptions and experiences related to PPP. The value in the preparation for employment was also investigated. In addition, the researcher explored the graduates' perceptions of learning, during the placement experience, supporting these insights into the value of PPP with relevant literature.

This study focused on: The graduates' perspective. Literature obtained targeted both the students' and employers' perspective of PPP but not the DN graduates. This lack of evidence in the value of PPP from a DN perspective led the researcher to a niche discovery thereby justifying the need for this research from the graduates' viewpoint of PPP which proved to be very enlightening. While the research primarily concentrated on the graduates' perceptions and those of the employers (dentists), it also explored the findings of relevant theorists and the relationship with these experts in the field of learning and its application to practice. This study focused on student-centred learning and the relevance of PPP from their perspective.

This research is exploratory in nature, based on the graduates' experience of PPP rather than on a specific hypothesis or assumption. For that reason, the positioning of this study is located within a phenomenological paradigm using both qualitative and quantitative methodologies. The research is divided into four

phases. The tools used were on-line questionnaire, focus group interview, individual interviews with DN graduates and written questionnaires from dentists.

The study found: The graduates' perceptions of PPP gave an insight into their preparation prior to PPP. They noted that stress and worry were factors in their lives before and during PPP but emphasised the overall experience was valuable and that it had many benefits. Graduates noted the learning achieved both in class and practice were important factors in the process of professional preparation, and the building of confidence and communication skills in preparation for employment.

Conclusion: This research has provided a significant insight into learners' experience and value of PPP from a postgrad and the dental professionals' perspectives. This has developed novel data that has not been previously been reported. It highlights the need for on-going evaluation of the educational process which direct and influence learners' experiences. AIT strategy has focused on a student-centred approach. This should underpin the whole PPP to maximise its potential as an educational tool in the preparation of the student for smooth transfer into the workplace. The potential of PPP requires optimisation through on-going research so that the learner gains the professional training in practice to qualify as a confident and competent DN prepared to work in any type of dental practice no matter what challenges they encounter.

CHAPTER 1:   Introduction

1.1   Introduction

This chapter explores the purpose of the research and the definition and rationale for PPP. It offers an understanding and insight to the researcher and her passion for this research and the participating dental nurses. It discusses the role of the dental nurse and associated history. This chapter also investigates the programmes, training and qualifications affiliated with dental nursing from a national and international perspective.

1.2   Purpose of the Research

The purpose of this research was to explore the dental nursing graduates' experiences of PPP. The researcher examined the graduates' views, perceptions and experiences and investigated whether they thought that PPP prepared them appropriately for employment. The researcher obtained their opinions, views and insight on the PPP learning experience, which was then compared to expert led research.

1.3   Definition and Rationale of Professional Practice Placement

PPP is a concept developed by the researcher to act as an identifier for that element of academic programmes which involved participants undertaking a structured, professionally relevant and integrated work placement. This programmatic element offered the students the chance to gain valuable knowledge and skills while spending time working with an employer and carrying out the same duties or tasks as any other employee. While there are as many definitions of work placement as there are experiences, perhaps the most relevant is offered by the Macmillan Dictionary (2014) which suggested that it is: '*A temporary job which needs to be completed as part of a programme of study in order to get practical training and experience'* (Macmillan Dictionary 2014).

According to Gardner (2014) a number of academic programmes in higher education deliver an integrated formal classroom-based knowledge and theory, with practical on-site work experience. These have commonalities and differences in terms of structure, design and layout (Gardner 2014). Furthermore, these types of on-site work experiences come under a myriad of titles such as:

- Cooperative Education,
- Service Learning,
- Experiential Learning,
- Work-based Learning,
- Apprenticeship,
- Practice Placement,
- Work Placement,
- Work Experience and
- Internship (Gardner 2014).

The researcher has chosen to develop a new overarching concept of PPP to cover the countless titles used in further and higher education, in order to provide a more cohesive and rational term for the reality experienced by students. It is felt that it identified a number of critical aspects including the importance of professional development, the centrality of practice to the experience and the deliberate placement of individuals in environments that should enhance their professional and personal lives. It is believed that this research strongly endorsed Gardner's contention that whatever the term used *'the integration of educational instruction with practical work improves the learning experience'* (2014, p49).

This concept is explained in further detail later in this chapter and within Chapter 2. However, for the purpose of this research, the title of *'Professional Practice Placement'* will be used to describe all formats of gaining work experience/placement while studying on an academic programme over a period of time.

1.4   Research Setting

With more than 6,000 students, the Athlone Institute of Technology (AIT) is located in the centre of Ireland. It offers undergraduate and postgraduate programmes within the Faculty of Business and Hospitality, Faculty of Engineering and Informatics, Faculty of Science and Health and Department of Lifelong Learning. AIT focuses on providing all students where possible, with the opportunity to gain excellent placement opportunities (Top Universities 2018).

1.5   The Researcher, her Background and Passion for this Research

The researcher has been employed with AIT since 1997 as a lecturer. Her experience has predominantly focused on business and the computer applications sector. In 2002, she acquired a position in the Faculty of Science and Health where she has been employed in the Department of Nursing and Healthcare for the past fifteen years. She has lectured in many programmes within the various facilities but with particular focus on professional practice in Dental Nursing (DN) programmes. In conjunction with lecturing, she has been responsible for programme/placement coordination on these programmes. These roles have meant that she has been very involved with the ongoing development and progression of these programmes. She has sought to ensure that they reflect the ethos of AIT in meeting the Quality and Qualifications Ireland (QQI) quality standards in education.   This has been achieved through her engagement in student-centred research creating a better understanding of the students, the lecturing staff and the stakeholders (dentists).

Each year the programmes have been enhanced by evaluating the previous year, ensuring a more up-to-date, relevant and smoother progression for all involved. Communication, in the researcher's opinion, is vital, so time spent listening and talking to the students on a weekly basis, especially during the PPP process is deemed critical to maintaining a student-centred approach. In addition, engaging in monthly meetings with the academic team and keeping a direct line of contact with clinical professionals through site visits is considered essential.

The researcher believes that direct engagement with academic and clinical professionals, combined with an analysis of possible future trends and system needs, provides a process for ensuring a better academic programme each year. While it is not possible to change the programme's structure on a yearly basis, it is possible to change, adapt or enhance elements within the indicative syllabus. The adaptability of the programme and the academic staff, in conjunction with the commitment of the employers, in her opinion, leads to a more confident adaptable graduate.

As an academic and professional, this study is important to the researcher. She hopes that the interest and passion she has, not only for her work, the students, the dental nursing profession and the PPP process, but the desire to have a better appreciation and understanding of each, permeates every page.

1.6   The Participants (DN Graduates)

The participants selected for this research were AIT qualified dental nurses. The cohort of graduates ranged in age from 19 to 55+ years, all of whom had completed their academic qualification with AIT. The dental nursing programme commenced in 2005 and has always included a PPP experience. Those who wished to pursue a qualification in the field of dental nursing in AIT traditionally enrolled immediately after completing the Irish Leaving Certificate examination. However, in recent years, this trend had changed to include a mix of mature people (over 23 years) who have either returned to education after rearing a family or had the desire to pursue a change in career. It is important to note that throughout this research reference is made to dental nurses as female. This is not always the case as there have been many male dental nurses some of whom qualified in AIT dental nursing H.C./B.Sc. Unfortunately, none of the male dental nurses were available to participate in this research.

1.7 The History of Dental Nursing - Training and Qualifications

1.7.1 Dental Nurse Training and Qualifications from an International Perspective

1.7.1.1 Dental Nursing USA and Australia

The origins of dental nursing can be traced back to Dr. C. Edmund Kells of New Orleans, who hired the first female dental assistant in 1885 to provide oral health care to women without the need for a male chaperone (The Dental Assistant Workforce in the United States, 2015, p9). The dental assistant is still largely dominated by women but during the latter half of the 19th and early 20th centuries, attempts were made to regulate their position in the workforce despite gender discrimination in obtaining employment. The first dental assistant society was organized in Nebraska in 1917. However, in 1921 Juliette A. Southard, a dental assistant, developed an organisation by the name of Educational and Efficiency Society (EES), which was later known as the American Dental Assistants Association (ADAA). This organisation was to set up in response to the changes in health care and technology by supporting and providing opportunities for professional growth

Throughout the world dental nurses/assistants are increasingly recognised as important members of the oral health promotion team (Baker, Langelier, Moore and Daman 2015). In the USA and Australia dental nurses are known as dental assistants.

However, according to Baker et al (2015) there are substantial differences in the qualifications to practice as a dental assistant. In some states in the USA, the responsibility of ensuring safe practice remains solely at the discretion of the dentist. The lack of clear definitions of duties, tasks and responsibilities for dental assistants and the lack of opportunity to progress professionally would suggest variations in the role of dental assistants by individual practices.

In Australia one does not need a qualification or a certificate or registration in order to work as a chairside assistant. Formal training is not required in order to commence work as a dental assistant in a private dental practice in Australia and it is not compulsory for dental assistants to be registered under the Dental Board of Australia or with any State and Territory Boards (DAPA 2017). However, a Certificate III in Dental Assisting, a vocational qualification is available and recommended for increasing professional development, job prospects and remuneration. Only registered training organisations can deliver these qualifications such as the Dental Assistants Professional Association (DAPA).

Dental Assistants who have attained a Certificate III and deemed qualified, may proceed to a Certificate IV in Dental Assisting, offering specialised areas such as: oral hygiene promotion, dental practice management or radiography. Radiography assistants who are required to operate dental radiography apparatus as part of their job role/title, must hold a current licence with the relevant state or territory radiation authority.

1.7.1.2   Dental Nursing Ireland and UK

Dental Nursing education and professional training, date back to 1936 when a dental practitioner by the name of Mr Philip Grundy decided to create a recognised qualification to regulate the dental nursing profession (NEBDN 2019). Supported by the then Dean of Birmingham Dental School, Grundy in 1943 founded the British Dental Nurses' and Assistants' Examining Board which was made up of, at that time, leading figures from the world of dentistry. This new examining board wanted to create educationally balanced written and oral examinations that could be replicated and regulated across the UK. The first dental nursing examination was held in 1943.

In Ireland dental nursing education began with Professor Louis Buckley who initiated a programme in 1971 in Cork (Borgonovo and O'Mullane 2013). Dental nurse training in Ireland and the UK, was similar to that offered in the USA and Australia. Here the focus was on a willingness to assist chairside rather than on the possession of a qualification in the area (NEBDN 2019). Training was

provided by the dentist with the option of taking a part-time/night programme in order to obtain certification for progression.

The UK and Ireland also provide similar descriptions with regard to the duties carried out by dental nurses. They state that the

> *'dental nurse plays an important role in a dental practice, working closely with the dentist in the management of the dental practice and the care and treatment of patients.   The main duties of a dental nurse include infection prevention and control, setting out dental instruments, chairside assistance, preparation and maintenance of the dental surgery and patient care. Additional duties may include helping the dentist to record information about the patient's oral health, processing radiographs and stock control'* (IDA 2019; Dental Council 2019; TCD 2019).

The roles that are undertaken vary, depending upon the individual practice and interests of the nurse. Dental nurses are typically employed by a dentist in private practice, by dental hospitals and by the HSE. This description was compiled from the educational institutes who provide dental nursing programmes in the UK and Ireland. The Dental Council of Ireland does not give an exact definition but instead outlines the Ethics & Conduct for Dental Nurses (Dental Council 2019). Dental nurses in Ireland having completed their relevant training and qualifications can gain entry to the Dental Council Voluntary Register of Dental Nurses (TCD 2019).

Currently, in Ireland a dental nurse must hold a Certificate in Dental Nursing (TCD 2019). In AIT the qualification undertaken by the DN is a Higher Certificate in Science (Dental Nursing). This programme can be taken as a full-time student with part-time work placement in AIT. The benefit of this process is that the student is learning and will have obtained a significant clinical and theory foundation before entering a dental practice. Another advantage is that the student will leave with a science qualification which will allow them greater access to other science based programmes, such as a BSc in Dental Practice Management with Oral Health Promotion offered only by AIT thus ensuring flexibility and progression in career. The experience obtained from classroom, in-house clinical settings combined with work placement in a dental practice

provides the dental nurse with the stability to progress into specialised areas of nursing such as orthodontics, maxillofacial and oral surgery.

Alternatively, a basic dental nursing qualification can be achieved through other education institutions, such as the Dublin and Cork Dental School and Hospital. Here a student can work full-time as a nurse in practice, while studying on a part-time basis.

In the UK Dental Nurses must either hold a recognised National Certificate/ Diploma in Dental Nursing or NVQ level 3 in Oral Health Registered (NEBDN 2019) and be registered with the General Dental Council (GDC) or be working towards registration on an approved training course. The National Certificate in Dental Nursing is a recognised qualification which is accredited by the National Examining Board for Dental Nurses.

> *'After qualification and GDC registration there are various opportunities for dental nurses to undertake Continuing Professional Development (CPD). Some dental nurses choose to work towards formal qualifications. These are offered by various awarding bodies e.g. The National Examining Board for Dental Nurses (NEBDN), Faculty of General Dental Practice (FGDP), City & Guilds, University of Bedfordshire, University of Kent and various dental hospitals. The qualifications undertaken by a registered dental nurse will be determined by the career pathway they choose'* (NHS 2019).

Dental Nurses/Assistants in the USA, Australia and UK obtain a certificate by working in a dental practice while undertaking part-time studies to prepare for their qualification. This was and, in some instances still is the case in Ireland.

CPD hours while available are not recognised for dental nurses in Ireland, although in the UK, the General Dental Council have provided a guideline for dental nurses stating that they must complete 50 hours CPD over a five year span (GDC, p6).

1.8   The Role of the Dental Nurse in Ireland

The role of the dental nurse is constantly evolving and for this reason it can be difficult to provide a definitive statement as to what it actually encompasses. Perhaps the most widely recognised, though arguably incomplete definition given the rapidly changing nature of the profession, comes for the Dental Council of Ireland 'Scope of Practice' document (2014).

According to this:

- Dental nurses are Dental Healthcare Professionals who provide clinical and other support to other Dental Health Professionals and to patients.
- Dental work carried out by a dental nurse may only be carried out under supervision of a registered dentist.

Subject to the foregoing conditions a dental nurse is permitted to carry out the following dental work:

1. assist at the chairside during all dental procedures;
2. prepare surgeries for dental procedures;
3. prepare and sterilise dental instruments, disinfect equipment and carry out other infection control procedures following international standards and best practice;
4. record dental charting and maintain treatment records;
5. support the patient and colleagues if there is a medical emergency;
6. assist in the care of patients receiving treatment under general anesthesia and conscious sedation;
7. assist in the taking and developing of dental radiographs;
8. take dental radiographs to the prescription of a dentist (having completed a Dental Council approved course in dental radiography);
9. give appropriate health promotion advice to patients;
10. carry out appropriate clerical and administrative duties.

Dental Nurses do not diagnose disease or create a treatment plan. They do not undertake any of the skill areas described in the Scope of Practice document as being reserved to dental technicians, clinical dental technicians, hygienists or dentists. Dental Council of Ireland, Scope of Practice (2014)

The dental nurse undoubtedly plays an important role in the coordination and management of a dental practice, assisting the dentist and other dental clinicians in all aspects of patient treatment, oral health care and management of a busy dental practice. Regardless of the geographic location the dental nursing career should be recognised for the many and varied features it possesses; the physical and technical, clinical and surgical, combined with the emotional and social.

1.9 Background to this Study

1.9.1 Format of Dental Nursing Programmes and PPP

There are currently two dental nursing programmes available in AIT: Level 6/Higher Certificate (H.C.) in Science (Dental Nursing) and Level 7/Bachelor of Science (B.Sc.) Dental Practice Management with Oral Health Promotion. These programmes, respectively, were designed with the QQI in mind as they provide the national framework of qualifications for recognition and awards within Ireland and are recognised at European and international level.

> *'The NFQ sets out trusted pathways through our national qualifications system. All qualifications included in the NFQ are underpinned by robust quality assurance arrangements. QQI quality assures providers of courses leading to NFQ awards* (Appendix 1) *recognised both at home and abroad'* *(QQI 2018, p27).*

The H.C. programme is available to students who have received the equivalent of a level 4/Leaving Certificate post primary qualification and mature students,

who are over 23 years of age, via the Central Applications Office (CAO). The H.C. in Science (Dental Nursing) is a full-time programme run over two years.

The B.Sc. in Dental Practice Management with Oral Health Promotion is available to students, on a full time and part time basis, who have completed the H.C. in Science (Dental Nursing) or equivalent via interview.

1.10   Higher Certificate in Science (Dental Nursing)

The modules undertaken in the Higher Certificate programme (Table 1.1 and 1.2) are as follows:

Table 1.1 - Year 1- Modules:

Semester One	Semester Two
Learning and Development for Higher Education	Dental Anatomy and Oral Pathology
Dental Professional Practice	Dental Professional Practice
Dental Anatomy and Oral Pathology	Clinical Dentistry 2
Clinical Dentistry 1	Biology
Chemistry	Chemistry
Biology	Dental Nursing Practice Placement

Table 1.2 - Year 2 - Modules:

Semester One	Semester Two
Dental Disease and Infection Control	Medical Emergencies
Dental Pharmaceuticals	Legal, Health and Safety
Behavioural Science	Clinical Dentistry 4
Finance and Accounting	Dental Pharmaceuticals
Clinical Dentistry 3	Dental Nursing Practice Placement
Dental Nursing Practice Placement	

In year 1 of the H.C., students complete semester 1, (September to December) of their programme in-house. Every effort is made to ensure that all the relevant and where possible, clinical experiences, knowledge and skills are taught within AIT by employed clinicians – dentists, hygienists and dental nurses, alongside

other academics within specially designed dental suite and classrooms. The initial training is followed by a PPP experience which commences in January of year 1, semester 2 for a period of forty days.

In year 2 of the H.C., students commence PPP in October, semester 1, having secured their placement before the conclusion of year 1. They continue to attend PPP every Friday, completing the compulsory forty days in conjunction with attending classes from Monday to Thursday. The second year dental nursing students start their PPP earlier than first year because they have underpinning clinical competencies (year 1 - experience, knowledge and skills).

The completion of a PPP workbook is required for both years (Appendix 2a/2b).

1.11   Dental Nursing Professional Practice Placement (PPP)

The PPP experience is provided by private or community practices and is designed to ensure that the dental nurse is exposed to the general public, and to the wide variety of treatments, demands and challenges of a busy dental practice workplace.

This is emphasised in the programme handbook:

> *"When students go on placement it is envisaged that they will gain an opportunity to apply their dental nursing clinical and professional practice knowledge and skills acquired in their programme within a professional practice setting"*
> *(AIT 2017).*

1.12   The Learning Outcomes for Dental Placement Year 1 and Year 2

During PPP the Dental Nurse is required to:

1. Demonstrate the ability to function in an effective rational and organised manner

2. Develop consistent and appropriate communication with colleagues, supervisors and placement mentors
3. Exhibit an ability to adhere to health and safety, legal and ethical obligations
4. Demonstrate achievement of competencies required to perform as a dental nurse

Allocation of the dental practice for the students' PPP experience is agreed by the placement coordinator (the researcher), in consultation with the student initially. Students tend to want to complete PPP near their home town so as to avoid additional costs such as travel and accommodation. Every effort is made by the coordinator to arrange this. The majority of the dental practices that have become involved in the provision of PPP with AIT have participated in an educational audit (EA). This EA evaluated the learning potential of each dental practice. Furthermore, the EA aided AIT in ensuring that the learners gain a holistic educational experience of working in dental practice while enhancing their dental nursing skills to a competent level necessary to qualify as a dental nurse. The EA provides invaluable data in relation to the size and layout of a practice(s), variation in treatment(s), resources, equipment, staff, qualifications etc., allowing for a better fit for both student and practice.

1.13   Assessment of Modules

1.13.1 Formative Assessment and Summative Assessment

Formative assessments can take the form of small tests, checks or draft submissions with feedback, used to evaluate how the student is progressing. Formative assessment is not compulsory for the student and while a grade is not received, it is highly recommended. On the other hand, summative assessments take the form of end of semester or end of year exam, project or report where a grade is achieved by the student. The purpose of the formative assessment is to ensure that the student receives the best possible grade in the summative assessment.

Modules with summative assessed use mixed methods such as:

- written examinations
- oral practical exams
- objective structured clinical examinations (OSCE)
- observational clinical proficiency exam (OCPE)

These continuous assessments are on an ongoing basis throughout both years. Grades obtained from each subject are combined with the grades received from the PPP workbook to form an overall mark of the final year's results. Thus, the grade point average is used to reflect the QQI identified educational standard.

1.13.2 Formative Assessment on the Placement Module

Formative assessment on the placement module is ongoing throughout the placement period and is carried out by AIT representatives, (the lecturing dentist or hygienist and the programme/placement coordinator). It is used to assess whether the student and the PPP dentist (or another dental clinician/staff) are completing the students placement workbook in the correct format. It is necessary that the assigned competencies in the workbook are completed in the correct order and manner required by AIT and that student grades and evaluations are provided by the dentist and/or clinician.

1.13.3 Summative Assessment on the Placement Module

As mentioned above, during the placement period the role of the PPP dental clinician, practice manager, decontamination lead, receptionist and dental nurse are required to grade and evaluate the dental nursing student on their performance on a range of designated tasks and assigned competencies outlined in the student placement workbook. Active participation, guidance and feedback from the clinical staff is encouraged throughout the placement period.

Students are encouraged to actively assist in:
- Preparation of surgery
- Assistance during procedures

- Mixing of dental materials
- Support patient
- Decontamination of surgery

A minimum of two chairside assistance procedures is required each day. It is then compulsory that the dentist/clinician grade, sign and comment on the student dental nurse chairside assistance in the workbook. The dental clinician's signature on completion of each day's chairside assistance is verification that the student has completed each task and is competent in assisting procedures.

Prior to the student completion of their placement, a visit is made by the AIT dental lecturing staff to meet with the dental clinicians and other staff in the appointed placement location. This visit is to discuss the PPP process, the student and their progression. Comments or suggestions are noted at this point. On completion of the work placement the DN student submits the workbook for final assessment by the dental staff in AIT and is further checked by the external supervisor appointed for DN programmes.

1.14   B.Sc. in Dental Practice Management with Oral Health Promotion

The level 7 B.Sc. in Dental Practice Management with Oral Health Promotion programme (Table 1.3). The subjects undertaken for the year are:

Table 1.3 – Modules

Semester One	Semester Two
Dental Practice Management with Placement	Nutrition and Oral Health Promotion
Nutrition and Oral Health Promotion	Dental Practice
Marketing and Applied Entrepreneurship	Integrated Capstone Portfolio
Research Methods	Advanced Clinical Dentistry
Primary Dental Care	Management and Leadership
Human Resource Management and Law	Dental Practice Management with Placement

The dental nursing B.Sc. programme is available to qualified dental nurses who wish to pursue an ordinary degree after completing the Higher Certificate at AIT or at another University or Institute. Graduates progress directly on to the programme from AIT H.C. in dental nursing or may return after working a few years post H.C. qualification. This programme is engineered specifically for those who wish to advance their education or change direction from their current position/qualification. It explores the specialised areas of the dental nursing profession. Access to this programme is via application and interview and is open to all graduates with a Level 6 equivalent to the Dental Nursing Qualification.

As part of this B.Sc. programme the PPP module requires students to complete at least ten days placement in specialised areas of dentistry. These students are qualified dental nurses but they 'work' (unpaid) as a dental nurse while obtaining additional skills in their nominated specialised area/s. One example of a specialised area is Oral Health Promotion which targets schools and nursing homes. Students work in groups to present, discuss and research ideas in assigned locations. In addition, students with an interest in orthodontics for example, take part (under supervision) in the role of an orthodontic therapy nurse. Paediatric dentistry is another popular area of dentistry with students. It involves working within a practice specifically designed for the care and treatment of children. An agreement between the senior dentist (supervisor), the student and AIT is established to ensure completion of an account of their experience in a special workbook during the PPP experience. The PPP workbook for this programme is similar in structure to year 1 and year 2 of the Higher Certificate PPP workbooks (Appendix 3) and it assesses proficiencies achieved and reflection on time spent in the workplace.

In a similar fashion to the Higher Certificate, the B.Sc. subjects are assessed through formative and summative assessment on an ongoing basis throughout the year. The grades obtained from each subject are combined with the grades received from the workbook to form an overall grade point average for the year and influences standard of qualification obtained.

Completion of the B.Sc. offers several employment and progression opportunities available to graduates such as:

- **dental practice management** (in any general or specialised dental practice)
- **oral health promotion** (HSE, general/specialised practices or health promotion companies)
- **marketing and sales** (dental equipment and tooth care products) companies
- **dental lifestyle consultancy** (HSE, tooth care and cosmetic products)
- **adviser on oral health and nutrition to special populations/organisations** (HSE, specialised practices, health promotion, health strategy development)

In addition, completing this degree ensures that AIT graduates are eligible to progress to honours degree studies in the areas of hygienist, health management or oral health promotion (AIT 2017).

1.15 The PPP Workbook

The dental nursing Level 6 and 7 workbooks are used to demonstrate that the students have progressed their knowledge, understanding and skills associated with the profession.

Prior to commencement of PPP, an agreement is made by the senior dentist (supervisor), the student and AIT to ensure that the workbook is completed in the correct format and that the DN is exposed to the treatments and associated DN skills provided by the designated dental practice. Signatures are required in the workbook from the dentist and practice team (e.g. other dentists, decontamination lead hygienists, senior dental nurses, practice managers and/or receptionists) to verify completion of tasks and competence in assisting procedures. Supervising instructions are presented for the assessment of students' overall performance and allocation of a grade based on their performance. The grades obtained while on PPP are combined with those

achieved in class to inform students' overall grade point average/degree qualification.

1.16   Additional Tools

In conjunction with the PPP workbook there are a number of tools used to enhance and obtain feedback from the PPP experience. One such tool is the reflective journal where students are asked from each programme to complete and reflect on their weekly PPP experience. This journal is constructed via Moodle (an online learning platform). It is a private online space, with access allocated only to the student who set it up and the relevant lecturer (researcher). Completion of the reflective journal is generally on the Monday preceding the PPP which is held on the Friday, where students are given allocated time to reflect on the PPP activities. It is during this time that students get the chance to talk and listen to their class colleagues and/or lecturer (researcher), allowing for similarities or differences in their PPP experiences to be examined and discussed. The purpose of this record of thoughts is for the student to *'develop active and reflective learning'* (Laker 2005, p64).

This is something that the researcher concurs with because developing a routine of reflective writing may in her opinion, enhance the overall PPP experience. The lecturer (researcher) reviews and keeps an open mind and an awareness of the students' writings. Throughout the week the lecturer speaks to each student with spontaneous questioning face-to-face in class as a group and sometimes one-to-one. This is a tool used to form an understanding and obtain an assurance that students are content in their placement while complying with the rules and guidelines (Appendix 4) outlined by AIT. In addition, scheduled and impromptu visits, and phone calls to dental practices by the dental and academic team throughout the year ensure an open line of communication and a visible consistency with the students and practices. It is during this time that feedback is acquired from dentists and other dental clinicians regarding PPP and what they deem important for future placements. Feedback, suggestions and predictions are discussed by the AIT DN team on an ongoing basis.

From her experience, the researcher believes that PPP plays a pivotal role in providing invaluable experiences for students. It confirms compliance, suitability and compatibility towards the conventional dental nurse career pathway and the slightly less common specialised dental nurse option for the student. In addition, it provides opportunities that might never be obtained without the PPP module being embedded within each academic programme.

1.17   Research Question

The research question which guides this study is: **'What are the views, experiences and perceptions of dental nursing graduates as to the value of professional practice placement?'**

In order to answer the question, this study examined the benefits and challenges faced by the graduates and how effective PPP is as a learning tool and in preparation for employment.

1.18   Context of Research

As previously outlined, the researcher has been employed in the Department of Nursing and Healthcare in AIT. She did not qualify as a dental nurse and so never completed PPP within a dental practice. For that reason, she does not have direct experience but as part of her job she has encountered the trials and tribulations, joy and ecstasy, not only of the students, but the lecturing staff and the professional clinicians (dentists, hygienists, and dental nursing staff). Some research obtained for this study focused on students and employers in varying educational work placements within different employment sectors. Surprisingly, there is no research in the area of DN graduates and PPP. This led to the need to investigate the PPP from a graduate position and gain a better understanding of work placement by focusing on those who had passed through the DN academic programmes. Their experiences provided a more all-inclusive, reflective view of their perceptions and experiences.

This research is exploratory in nature based on the graduates' experience of PPP rather than on a specific hypothesis or assumption. Therefore, a phenomenological study is best suited to gain the valuable insights, views and experiences of the graduates who had completed PPP and were now in employment. Greater detail of a phenomenological study is provided in Chapter 3.

1.19   Aspirations of this Research

The researcher will aspire to contribute to the body of research currently around professional practice placement, in addition to the recognition and clarification of the profession of dental nursing. It is envisaged that this research will inform not only her own practice as a lecturer, programme and placement coordinator of a dental nursing programme in AIT, but also enlighten others to all aspects of professional practice placement worth considering. Finally, the researcher would like this research to play a role in influencing policy makers, highlighting the significance of a placement experience within an academic programme for the student. It should stress the need for future funding of resources, time and management of professional practice placement coordinators, academic staff and practitioners who as a community enhance, develop and guide the student in their chosen career.

1.20   Outline of the Research

This section represents a synopsis of each chapter.

Chapter 1 - outlines an overview of this study, the aim, objectives and rationale, outlining recommendations and context; a brief synopsis of the researcher, her current position of employment together with the participants involved and a review of the academic programme with a basic introduction to PPP.

Chapter 2 - explores the relevant research evidence to date on the PPP experience regarding resources, students' and other stakeholders' experiences. A large proportion of the literature reviewed deals with learning and the various

aspects of learning, both in class and in the workplace. The definition of learning is *'complex'* and *'multifaceted'* (Allan 2015) which consequently leads to the review of a broad range of research literature. Learning, in the researcher's opinion, is the cornerstone to progression, both personally and professionally and is the core of the PPP experience. The literature reviewed highlights the works of theorists such as Dewey, Vygotsky, Bandura, Piaget, Kolb and Mezirow who have examined the learning process in great detail.

Chapter 3 – presents the research question and a five-phase model for a research process proposed by Denzin and Lincoln (2005 p23). There is a detailed account of the methodologies used, along with justification, using an interpretive approach with hermeneutic phenomenology based on the philosophical perspective of Martin Heidegger's and Max Van Manen's belief of the lived experience. Additionally, this chapter reflects on the ethical and legal considerations faced by the researcher.

Chapter 4 - the findings are presented in relation to the existing evidence based on best practice in PPP, around the learners' experience and academic approaches to delivering quality PPP. The application of Van Manen permits a means to identify, describe and interpret the lived experience of the dental nursing graduates. The themes that arose in this research are all rooted in the participants' accounts of their thoughts, ideas experience and perceptions while on PPP.

Chapter 5 - this chapter presents the findings from both the quantitative and qualitative research and where possible, linked and supported by the literature review. The focus of this chapter is to give an account of the views, perceptions and experiences of the dental nursing graduates undertaking PPP, their ideas, understanding and stories, highlighting both the predicted and unforeseen themes which emerged from the data.

Chapter 6 - the recommendations outlined in this section stem from the preceding chapters, examples from current literature, the analysis of data, the discussions with graduates and the researcher's personal experiences. It was

through the discussions with graduates that significant details emerged in relation to the dental nursing profession and the lack of structure, recognition and clarification which surrounds the role of the dental nurse.

CHAPTER 2:   Literature Review

2.1   Introduction

The intention of this chapter is to discuss the literature surrounding PPP as strong evidence has suggested that the work placement experience has been thought to be extremely valuable, with quality placements prioritising a range of benefits and positive impacts to students, both in terms of their academic performance and their employability.

As lecturers and teachers, we are always trying to find ways to improve our teaching and learning techniques in support of the student and academic colleagues, in addition to adapting systems and approaches when developing new programmes.   Research into evidence based best practice is necessary to support change which may lead to improvements for the future (Sloan 2015). Graduates' experience of PPP is an under researched area although, as previously mentioned, significant research has been undertaken in the area of student and practice/employer experiences of placement.

There is a deficit in research into the students' views on PPP from the DN graduate perspective. Therefore, the aim of this research is to find the missing link between the educational and PPP experiences. In addition, the graduates' views, experiences and perceptions regarding the value of professional practice placement were obtained in order to evaluate the PPP from the learner perspective.   This study examines the benefits and challenges faced by the graduates and how effective PPP is as a learning tool in preparation for employment.

The literature reviewed provided an account of the research and knowledge obtained in relation to PPP. Specifically, this review focused on the development of PPP, its value, the graduates, and associated theorists.   A comprehensive account of the research relating to the area of PPP is presented in this chapter, with an extensive focus placed on appropriate and relevant evidence relating to

learning. 'Learning', in this instance, played a key role in the development of the professional dental nurse.

In this context research related to learning styles, learning in general and applied practice has been reviewed.

The process of transition from graduate to employee enabled by learning in PPP has been discussed and how in particular this experience prepared the graduate for employment is explored in greater detail.

2.2 Development of Professional Practice Placement (PPP)

Chapter 1 revealed that the researcher chose to create a phrase which would identify the vast collection of concepts used when people were involved in a workplace environment as part of their training (Sheridan and Linehan 2012). As mentioned in the previous chapter, the most common phrases were Cooperative Education, Service Learning, Work-based Learning, Apprenticeship, Practice Placement, Work Experience and Internship (Gardner 2014). These are all forms of Professional Practice Placement stemming traditionally and predominately from further education and more recently higher education. Each of the above named concepts may have distinct differences regarding setup arrangement, structure and payment etc. However, the goals and objectives of these concepts are relatively similar, such as gaining experience in a working environment, developing new abilities and skills, dealing with real-life problems in the workplace and increasing learning experience by building on classroom knowledge (Gardner 2014).

Gardner (2014) in his study tried to *'discern a shared language in order to establish a stronger foundation, upon which to build, and sustain scholarship in this area and enhance practice'* (p49). He went on to say that *'although the area of study includes a multitude of names, analysis suggests that they share more or less, a common philosophical belief that integration of educational instruction with practical work improves the learning experience'* (p49). Therefore, it might

be argued that in general they are all attempting to explain a broadly similar phenomenon.

Experts indicated that PPP is an integral part of a student's academic programme (Lalor and Doyle 2005; NSHE to 2030 2011; Sheridan and Linehan 2012), where it showed the student what it is like to live and work in an area relevant to their chosen career (Katula and Threnhauser 1999). While much research has been compiled from the experiences of both the students and the employers (McCoy, Smyth, Watson, Darmody 2014; Andolo 2012) research to date has focused purely on the positive and negatives of PPP.

2.2.1 The History of the Work Placement Experience (PPP)

As previously discussed PPP is not a new concept. The roots of the work placement experience date back as far as the 13th century (Encyclopaedia Britannica 2016) where a range of employment focused on educational experiences began to be formalised and ultimately formed the basis of the apprenticeship model. The Washington State Department of Labour and Industries (1969) summarised the history of apprentices and their apprenticeships in *'Apprenticeship Past and Present'*. This publication highlighted the example of Thomas Millard. Millard, an apprentice in 1640 was '*bound body and soul to his master, living in his master's house, dependent upon his master for handouts of food, clothing, and a few uncertain shillings'* (p1). At that time artisan craft workers taught their craft to the next generation on-site without the aid of theory from a classroom. On completion, the apprentice not only received a craft and skill but also obtained a status and became an important member of society (1969, p1).

The extremities of those days are behind us, but the 13th century's tradition of transferring skills from one generation to another is still very real and relevant in 2018. In Ireland apprenticeships are a significant part of the further education system. It has been reported that individuals on an apprenticeship experience are *'members of a production force, trained on the job, where they may be a paid a wage, working a regular week and living in their own home rather than that of*

their master' (The Apprenticeship Council, 2016; SOLAS, 2014; The Washington State Dept. of Labour and Industries, 1969, p1). As centuries have passed the structure and name of the apprenticeship model guided by the institute of further education has changed, but the allocation of payment during this period has remained a constant. While students completing PPP (and other such titles), under the guidance of a higher education institution have generally been unpaid.

In 1906 PPP was developed by Dean Herman Schneider at the University of Cincinnati (Cedercreutz and Cates 2010). He believed that linking theory and practice together in a meaningful way could be very beneficial to the student, providing them with a wider spectrum of knowledge, (Cedercreutz and Cates 2010). Schneider was ahead of his time and his theory has been applied to many educational systems. Concurring with this notion, Harvey, Moon, Geall and Bower (1997) produced a detailed study where they found that PPP was the single most significant missing element in most degree programmes at that time (Harvey, et al 1997). They believed that this missing element deprived students of a greater range of knowledge, expertise and experience from a working environment.

Today, in higher education institutes, PPP is a concept used to describe the combination of higher education institutes and work organisations to create new learning opportunities for students in the workplace (Boud and Solomon, 2001). Placement offers a student the ideal opportunity to grow professionally and personally expanding knowledge while gaining insight to a practical experience.

2.3   The Department of Education and Skills

The Department of Education and Skills is responsible for *education* in Ireland. '*Education is compulsory for children in Ireland from the ages of six to sixteen or until students have completed three years of second level education'* (The Department of Education and Skills) (DOES 2018)

The Irish education system is made up of:
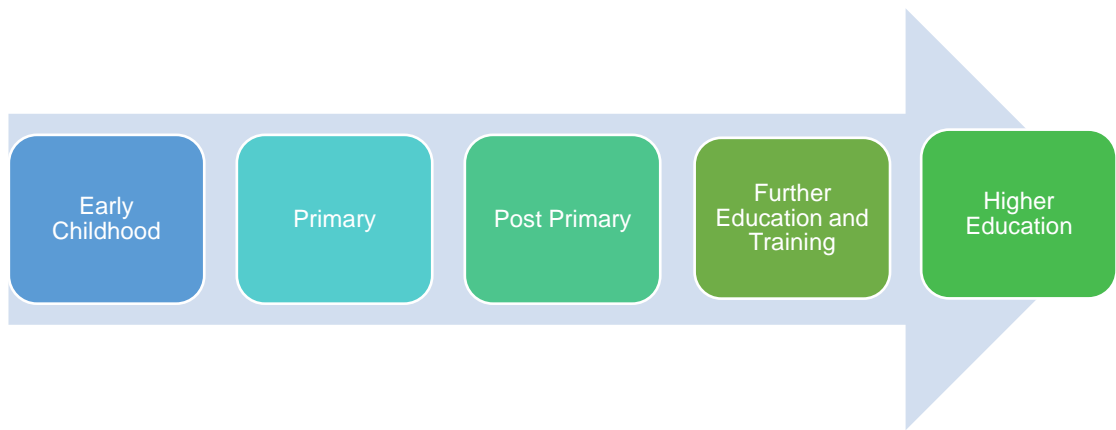
Figure 2.1 – The Irish Education System. Source: DOES 2018

DOES mission statement '*is to facilitate individuals through learning, to achieve their full potential and contribute to Ireland's social, cultural and economic development'* (DOES 2018) and their goals are outlined in Figure 2.2

Figure 2.2- The Goals of The Department of Education and Skills. Source: DOES 2018

This research has focused mainly on higher education while acknowledging the contributions of secondary and further education. '*Higher Education in Ireland is provided mainly by 7 Universities, 14 Institutes of Technology and 7 Colleges of Education. In addition, a number of other third level institutions provide specialist*

education in such fields as art and design, medicine, business studies, rural development, theology, music and law' (DOES 2018).

The Higher Education Authority (HEA) is an administrative body under the DOES, responsible for the statutory planning and development of higher education and research in Ireland. The HEA provides advice, recommendations and funding to all third level education institutions. The National Strategy for Higher Education to 2030, was set up in 2011 to provide a transformation process of Ireland's higher education sector.

2.3.1 The Higher Education Route in Ireland

Higher education has gone through several different historical phases, each building to some extent on what had gone before (Figure 2.3).

The Platonic Phase, involving a focus on knowledge, scepticism and critical thinking in an Academy, and the attainment of freedom and independence through critical inquiry.

The Medieval Phase, involving a broadening of participation, emphasis on joint learning between scholar and student, institutional independence and the awarding of degrees. It was also characterised by an emphasis on the educational process as valuable in and of itself

The Newman Phase, involving a focus on knowledge for its own end, where higher education was something more than simply offering particular or selected knowledge for an (emerging) industrial society. It emphasised reason and reflection, and thus contributed to the formation of individuals. This idea was extended by the German Philosopher Karl Jaspers, who viewed the role of higher education being to teach, research, provide professional education, and transmit culture through academic freedom and critical thinking. Academic freedom, he argued, was essential, in the face of a growing state.

The Counter-Course/Culture Phase, which rejected notions of higher education formed up to the 1960s as ideologically driven. Such institutions were viewed not as the neutral bastion of knowledge that they purported to be but as promoting the advance of a modern technological (and capitalist) society

The Disappearing Phase, where the notion of higher education as set out in earlier phases is replaced by one which emphasises management, resource allocation, performance indicators, and demonstrating clearly the contribution the institutions make to the economy by way of student throughput to the labour market with specific sets of skills

Figure 2.3- Higher Education in Ireland: for Economy and Society? (2014). Source: Oireachtas Library and Research Service (OLRS 2018).

2.3.2   Higher Education Policy

In 2018 Irish policy agreed with both Harvey et al (1997) and Schneider (1906) suggesting that PPP should be an important element in the majority of degree programmes. This was due to the fact that completing such an element allowed the student to gain direct experience of the working world and provided a platform to impress a future employer (Liston, Frawley and Patterson 2016; Cunningham 2001). In existing European policy documents, it is argued that education is of vital importance and that PPP is an essential component of education (Liston, Frawley and Patterson 2016; NSHE 2011).

Ten years previously, in 2008, the United Nations Education, Social and Cultural Organisation (UNESCO) published a review of higher education for the 21st century. The report reiterated points made in the World Declaration on Higher Education for the Twenty-First Century: Vision and Action (UNESCO, 1998) claiming that higher education should:

Educate highly qualified graduates and responsible citizens

Advance, create and disseminate knowledge through research

Provide opportunities for higher learning and for learning throughout life

Figure 2.4 - Vision and Action. Source: (OLRS 2014)

The vision and action outlined in 1998 is similar to the System Performance Framework objectives which Government has set out for Irish Higher Education Institutions for the period 2018 – 2020.

The aim of higher education in Ireland, as described by DOES (2018), is one where the student accessed a more flexible system with a quality educational experience which connected with local community projects and enterprises (DOES 2018). The National Strategy for Higher Education to 2030 (NSHE 2011) described how Irish education is transitioning and the focus is changing due to unemployment, different work patterns, particularly in relation to lifelong learning and upskilling, they suggest that it was necessary to:

to transform Irish higher education in preparation for future job opportunities

deliver knowledge and learning of lasting significance
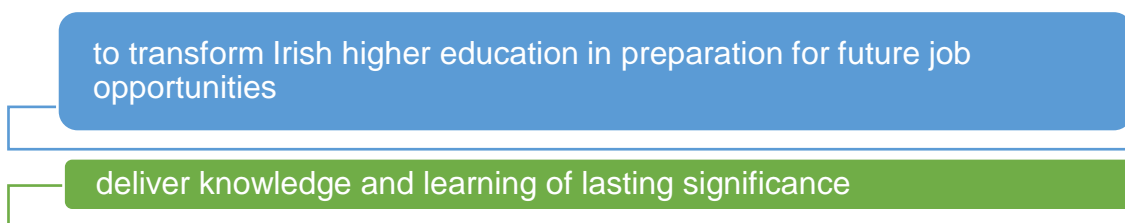
Figure 2.5 – Opportunities. Source: (NSHE, 2011)

The report goes on to suggest that PPP should be part of every undergraduate learning and while some programmes currently had some form of placement experience integration, more needed to be done (NSHE 2011). The Higher Education Systems Performance Framework 2018 – 2020 published in December 2017 outlined the 'Action Plan to Expand Apprenticeship and Traineeship in Ireland**.** This established work-based learning, involved strong partnerships between employers, higher education and further education and training providers' (p4). The framework suggested that *'All students will have the opportunity to undertake a work placement or work-based project as part of their course by 2025'* (p10). This National Access Plan (2015-2019) supported PPP as a learning experience because one of the key objectives was to '*create rich opportunities for national and international engagement which enhances the learning environment and delivers a strong bridge to enterprise and the wider community*' (p26). Additionally, for second level students the introduction of transition year has brought significant evidence of the involvement of students taking part in their local community care initiatives and work placement. This type of development recognises and prioritises the importance of the learning experiences, embedded in real-life, which is important for advancing the learners' educational experience (The National Access Plan 2015-2019).

However, prior to that plan in 2014, The Economic and Social Research Institute (ESRI 2014) published a report on '*Leaving School in Ireland: A Longitudinal Study of Post-School Transitions'.* This publication explored the experiences of school life for students and the transition to further education and/or employment. It noted that students who completed PPP experience during transition year were given useful insights into different careers and into the realities of life and the working world (McCoy, Smyth, Watson, Darmody 2014). The participants interviewed, as mentioned previously, were second level transition year students

and they had a positive experience and achieved useful insights. However, in the researcher's opinion, they did not have the expertise to know if PPP really achieved its stated purpose, which is to get practical training and experience for a period of time as part of an academic programme in order to gain employment. In this instance the participants interviewed were returning to school and not employment and their placements were short time periods of 1 to 2 weeks.

According to DOES (2018) Higher education in Ireland has been strategically focused on increasing student enrolments and building bridges between education and the community. In 2014/2015 there were over 215,000 full time and part-time students enrolled in higher education (HEA 2016) and while this was an increase on previous years, higher education is not just concerned with improved enrolments but with progression. In the HEA's (2016) report on progression there was awareness and concern with student retention, advancement and successful completion by our graduates. The HEA wished to ensure the production of high calibre graduates whose '*adaptability'* is evident and who are ready to meet the demands of a *'knowledge economy'* (O'Brien 2017) central to achieving and growing economic prosperity in Ireland (HEA 2016; HEA 2008).

The production of high calibre graduates may not be straight forward because some years previously, in 2012, the REAP report, experts warned that what students learned and how they learn in a scheduled PPP is very much determined by the participation, help and guidance of the practice or business/employer, combined with the student's willingness to learn (Sheridan and Linehan 2012). While learning and working were often seen as distinct entities, in many ways they were interconnected. Interestingly, Allan (2015) believed that as a student we work through our academic programme and as a worker we engage in education and learning. This collaboration naturally led to positive and negative learning experiences. Current Irish and European educational policy makers were undeniably committed to improving and advancing education and learning within the workplace. Nevertheless, high calibre graduates needed greater participation, involvement and support from policy makers, in addition to

employers and higher education institutes, to ensure that education did not become stagnant but progressed with greater collaboration and development.

From the European perspective, a report was published by The European Commission entitled 'Work Based Learning in Europe' in June 2013. It highlighted the benefits of work-based learning (PPP) with its *'goal of tackling youth unemployment through high quality vocational education and training'* (p5). The report identified the three main models of work-based learning, namely:

- apprenticeships,
- on the job training (placements) and
- work based learning

These are integrated on-site within a further education/training centre. It suggested that in order for the above-named models to work in the long term, active commitment from the employers and educational policy makers is vital ensuring significant benefits to the students, employers and society as a whole. Boud and Solomon (2003), cited in Linehan (2008), concur that work-based learning (PPP) is beneficial in giving a student the opportunity to gain a qualification by *'drawing on everyday work practices'* (p81). The overarching principle is that students were learning on the job in a work-based environment with job type, time and payment seemingly the only difference in the further educational programme. The report focused on getting the youth of today employed through high quality further education and training. Perhaps unsurprisingly, it did not really consider the experience of a majority of school leavers in countries such as Ireland who take the conventional route of advancing from leaving certificate to higher education and not further education.

2.4   The Further Education Route

In Ireland, Further Education has been described as education and training which occurred after second level education, but which is not part of the third level system (Dept. of Education and Skills 2018). Formally, colleges of further education and training (FET) would have operated under the guidance of the local

Vocational Education Committee (VEC). However, this changed in 2013 to the Education and Training Board (ETB) of which there are currently 16 (DOES 2018). The ETB's have the responsibility for the delivery of primary, post primary and further education and training courses which have led to awards at Level 5 or 6 from FETAC, the Further Education and Training Awards Council (FETAC 2018).

Traditionally students who came from certain affluent parts of the country or wealthy families did not usually see themselves progressing to FET despite the possible suitability of this route (McGuire 2016; HEA 2016). Those who secured a place in a higher education institution may not get through first year because the format of education chosen is not suited to their way of learning (McGuire 2016; HEA 2016). As previously mentioned the NSHE (2011) reported that PPP should be part of every undergraduate programme in higher education. In addition to this, the push for the reintroduction of apprenticeships is being prioritised, with the government highlighting the appeal and value option for students who might prefer a practical training programme to that of an academic one. Arguably the difference between the HE and FE is their polarised routes HE focuses on academia, with PPP as an additional element of the programme, while FE focuses is predominately on the practical training experience, with academia seen as the addition to the programme.

The Apprenticeship Council in Ireland defined apprenticeship *'as a programme of structured education and training, which formally combines and alternates learning in the workplace with learning in an education or training centre. This is a dual system, i.e. a blended combination of on-the-job employer-based training and off-the-job training'* (Apprenticeship Council 2015, p4). This definition is similar to that of PPP except that the apprentice may earn as they learn, through funding by SOLAS (Apprenticeship Council 2015). SOLAS, formally known as FÁS is the lead agency responsible for apprenticeship on behalf of the Irish Government. Apprenticeship courses currently available are in areas such as financial services, accounting and software development, to name but a few, providing a more diverse range from the traditional motor mechanics and construction previously available (McGuire 2016; SOLAS 2016). The ETBs,

believe that investing, expanding and modernising apprenticeships is the way forward (Dept. of Education and Skills 2018).

While the academic route to higher education may favour some students, it may not suit all. The belief that a degree from a university is the key to success still prevails, with the stigma of a FET programme still very much apparent (Hodges 2014).

2.5   Employers and Employment

Despite the changes in technologies and the vast improvements in education, graduates were still emerging ill equipped to meet the needs of the employer and the challenges of employment according to Baharun, Suleiman, and Awang (2012). In an age of upheaval, companies were looking for graduates with knowledge and practical intelligence, to aid survival and success in gaining a competitive advantage. Their research indicated that *'there is a gap between the knowledge, skills and qualities that university graduates possess, and the knowledge, skills and qualities required by prospective employers'* (Baharun, Suleiman, Awang 2012, p8790). To bridge that gap it is important to involve all relevant stakeholders, students, higher education institutions and the employers, because according to O'Leary (2016) *'graduate employability is an issue of growing importance in higher education' (p2).*

An article in The Irish Times with the headings *'Hard skills get you hired, poor soft skills could get you fired'* suggests that *'Soft skills keep the wheels of interpersonal communication running smoothly and are central to building employee commitment and morale, and essential for good teamwork'* (Keogh 2016). The DCU President Professor Brian MacCraith concurred with the above sentiments claiming that there should be better communication with employers because they play an important role. He suggested that employers want *'graduates who can solve problems, lead teams, be innovative and build relationships that strengthen the company. They also need them to be creative thinkers, problem solvers, emotionally intelligent, digitally literate and adaptable for the world of ever-increasing change'* (O'Brien 2017, p1). This is a challenge

for the academic staff in high level institutes to ensure that our graduates leave with the traditional hard skills of knowledge in addition to the soft skills and abilities now required by employers. The crucial message coming from employers is that students need to build up experience through work placement in order to boost their chances of getting hired (Benady 2018). Victoria Lawes, UK director of resourcing at Deloitte, maintains that work placement for students *'can be a fabulous way to accrue the skills and network needed to land a good job'* (Murray 2018).

Publications and research of this kind should not go unnoticed. While the future of PPP looks secure there are numerous reports and studies on the strengths, weaknesses, opportunities and threats, not forgetting the achievements of graduates and their employability (Little and Harvey 2006; Mandalas 2004; Davies 2003; Bowes and Harvey 2000).

As educators it is essential that the opportunities for students to partake in work life experiences are provided. Reiterating previous sentiments, the best of both worlds, it would seem, is an academic programme with professional practice placement as a component. Third level educational institutes need to ensure that including a PPP element means that students may take part in the experience of attending a third level institute, thus obtaining a degree with the practical experience of their chosen profession and possibly future employment (Gomez, Lush and Clements 2004). In 2009, the UK commission for employment and skills (2009) commented that PPP is not only a very effective '*method of inculcating skills awareness and abilities'* (UKCES 2011, p6) in students, but also a great way of '*promoting, productive collaboration and partnership between higher educational institutes and employers* (UKCES 2011, p6).

An ESRI study undertaken by Seamus McGuinness and co-author Luis Oertiz (2016) recognised that the skills gap still exists. Their publication suggested that gaps existed where the skill levels of workers were insufficient to meet the requirements of their jobs. This gap they claim, should be acknowledged by the student, employer and educational institute in order to improve productivity (McGuinness and Ortiz 2016). In a previous ESRI report McGuinness, Whelan and Bergin (2015) research suggested that '*increasing the practical aspects of*

degree programmes, irrespective of the field of study, will reduce the incidence of initial mismatch' (McGuinness et al 2015, p18). They believed that higher education institutes whose academic programmes incorporated a work placement had a substantial impact on graduates obtaining a permanent position thus '*reducing the incidence of graduate mismatch*' (McGuinness et al 2015, p18). Their recommendation confirms the need for collaboration in order to obtain the best results for all concerned.

Arguably, if the skill sets of workers were insufficient to meet the requirements of their jobs, then this could be addressed more efficiently by the inclusion of a PPP element in all academic programmes. This should be done in partnership with the stakeholders to ensure pace is maintained with the changes occurring in the graduate labour market (Baharun and Suleiman 2009). However, it's not all doom and gloom when it comes to graduates. A survey conducted by Iashkov (2012) concluded that employers gave very high ratings to graduates describing them as being purposeful, competent and knowledgeable in computer skills and technology. It confirmed that graduates '*had good theoretical training with a desire to change or upgrade their qualifications'* (Iashkov 2012, p65). A fact that greatly inspired optimism for the future and confirmed that while hard skills were a requirement for any career, the need for soft skills was becoming more apparent (O'Leary 2016).

Employment and careers change as opportunities arise, something that was unheard of in times past where *'you left school, found a job and stayed there until you retired'* (Taylor 2017, p1). Today both employees and employers welcome change. While changing career is not an easy thing to do, it did mean that you were not stuck for the rest of your working life in a job you hate. This is an undeniable benefit of the PPP *'a try before you buy'* arrangement (Coco 2000). Change however brings expectation, not only from the employees' perspective, but from that of the employer who wants graduates with workplace maturity and attributes such as emotional intelligence, creative thinking, and problem-solving skills who will work as team players (O'Brien 2017; Harvey 2003). A key question needed to be asked by educators is whether they instilled qualities or attributes in graduates so that when they left third level education to procure employment

they were responsible professionals with an awareness of themselves and others. Every higher education institute will have a document highlighting their recommended attributes in relation to professional and personal development which it is hoped every graduate will achieve before leaving higher education.

Saunders and Zuzel (2015) suggested that graduates with the above-named soft skills and attributes were *'more likely to gain employment and be successful in their chosen career, benefiting themselves, the workforce, the community and the economy'* (Saunders and Zuzel 2015, p1). Cranmer made a similar statement in 2007. She reported that while personal qualities greatly enhanced graduates' employability, the place to develop them should be in the workplace and not the class room. She went on to say that PPP, combined with employer involvement, were found to positively affect graduate prospects for employment, which in turn supported them in their transition from graduate to employee (Cranmer 2007). PPP gave students the opportunity to gain employment after graduation because they have the necessary experience, training and skills required by employers. When on PPP students learn about the job and the career, how to deal with management, staff and the general public in addition to the day to day running of a business. This latter point is critically important and the role of learning as mediated through PPP is a key element in the development of the personal and professional attributes and capacities of students and graduates. This will be explored in some detail in the coming sections.

2.6   Graduates, Attributes and Capabilities

At the outset of this study there is no statement of the required attributes for DN students. AIT have a general document which highlighted the necessary attributes required by all graduates on completion of their programme. This document requires that the graduate leave AIT with a '*sound and in-depth knowledge base, a high level of ethical, social, cultural, environmental and wider professional conduct, an ability to solve problems and think creatively and critically and an ability to communicate effectively in a wide variety of appropriate ways. Furthermore, they needed the ability to collaborate and work in multi-*

disciplinary teams with a commitment to continued personal and professional development and a desire to learn' (AIT 2017).

The University of Limerick (UL) produced a graduate attributes' document where they outlined a '*commitment to educating students for their professional and personal lives, focusing on taking responsibility for themselves and their community while learning to interact effectively with people from other backgrounds, cultures and specialism*' (University of Limerick 2016, p4). The document highlighted six key attributes. Students were required to be Knowledgeable, Proactive, Creative, Responsible, Collaborative and Articulate. Professor Don Barry President, University of Limerick (2016) outlined in his message that UL *'believe in the importance of helping students to work positively with others, to operate in challenging and changing environments, to develop the skills to articulate their ideas and perspectives, and to enlist the courage it often takes to make a real difference in the world'* (University of Limerick 2016, p5).

It might be anticipated that the sentiments outlined by Professor Barry would form the backbone of all programmes within higher education institutes, allowing and encouraging students an opportunity to develop not only academic abilities but also personal qualities, understandings and transferable skills. These personal qualities and attributes could be recognised as soft skills (Hoskin 2019; Nitonde 2014). The dental industry is becoming more aware of the need to satisfy their patients as they can be critical consumers with high expectations. Dental nurses are at the forefront and so are best placed to communicate effectively with the necessary clinical knowledge and soft skills required to put a patient at ease while working within their role as dental nurse, mentioned previously in Chapter 1 (Leong et al 2016). As educators, it is in our commitment to educate that we recognise learning as an important element both in the classroom and the workplace.

2.7   Learning

How and where one learns, whether in the classroom or in the workplace (Kozulin 2003; Wells 1999; Vygotsk 1962), has become an important question driven by

the demands of new skills, new technologies, and the construction of new knowledge. Learning not only enables the successful transition from graduate to employee, it assists in obtaining knowledge, new skills, introducing effective communicators with eloquent ideas and perspectives, while instilling a desire for personal and professional development. Learning is described as the key to achieving one's full potential. It underpins the whole concept for preparation for employment and how graduates view their experiences of PPP.

A recent study compiled by the American Journal of Dental Education asked the participating dental clinicians to rate and rank the importance of each area of learning. Results declared knowledge to be the most important component followed by critical thinking, technical skills, clinical decision making, ethics, problem-solving and social responsibility (Hoskin 2019; Kolb 1984).

The graduates' perceptions and experiences of learning and linking theory to practice while on PPP is identified as an area of significant interest to the researcher. As an educationalist the researcher is aware that the purpose of education is learning. However, for many years the focus was mainly on us, the teachers and our teaching, rather than on the student and their learning (Ostroff 2012). Gerner (1981) believed that a student's learning is something as mysterious as a '*black box*' (Gerner 1981) while more recently, Allan (2015) summarised his definition of learning as *'complex'* and *'multifaceted'*. '*It is extremely difficult to formulate a satisfactory definition of learning*' according to Hilgard and Bower (1966, p6). Learning may be defined as *'a change in the individual, due to the interaction of that individual and his environment, which fills a need and makes him more capable of dealing adequately with his environment'* (Burton 1963, p7) or could simply be defined as *'a change in behaviour as the result of experience'* (Cronbach 1963, p71; Haggard 1963, p20).

Figure 2.5 – Learning Definition.

Learning has been defined as *'the acquisition of knowledge or skills through study, experience, or being taught'* (Oxford Dictionary 2016). An old definition favoured by the researcher which still holds some weight in its descriptive simplicity was compiled by Harris and Scwahn (1961). They suggested that *'learning is essentially change due to an experience'* (Sims and Sims 1995, p5)**.**

As is evident the term *'learning'* is very versatile and so difficult to define. A prevailing understanding is that as individuals we do *'learn'*. However, a comprehensive description of what exactly '*learning'* is, is very difficult to condense. As previously highlighted learning played an important role in this research and in the perception of PPP. It is for this reason that an extensive proportion of the literature reviewed concentrated on learning and the many associations of learning.

Philosophers and psychologists have been trying to understand how people learn for thousands of years, deciphering an understanding of the nature, cognitive and behavioural issues relating to learning. How one learned and the many influences of peers, teachers and community, may all have had a significant bearing on what and how knowledge is attained (Darling Hammond, Austin, Orcutt and Rosso 2001). The environment, prior knowledge, cultural and social influences (Bandura 1977) may also affect the way we learn, contributing hugely to our

acquisition of knowledge and how we approached '*visual, aural or kinaesthetic information'* (Darling et al 2001).

A book entitled '*Understanding How Young Children Learn'* by Wendy Ostroff (2012) suggested that *'learning is a physical phenomenon'* (Ostroff 2012, p2). The author describes this phenomenon as a form of energy, infusing our brain, body, sensory and nervous systems. It occurs simultaneously and is embedded in our life experiences, social and community interactions (Ostroff 2012; Bandura 1977). She went on to say that when we were born, '*we are born with an ability to learn and understand and that it is at this baby stage, we learn the most. As a baby, we notice the* '*sights, sounds, smells, tastes and textures'* (Ostroff 2012, p3) which surround us. She continued to explain that even before birth, the mind is developing while we are *'moving and changing position within the womb'* (p3). She endorsed this fact, claiming that *'from the very beginning, we are active, exploratory and involved in the creation of our own knowledge'* (p3). When we get older and need to problem solve, we adapt to new surroundings or learn new techniques or methods, Ostroff (2012) suggested that it is during this time we '*revert back to our baby years where we explore and learn from the environment that surrounds us'* (p3). The way we learn, as a child may be very different to how we learn as a young adult, which differs again when one matures. Many theorists suggest that learning is undoubtedly very dependent on the interest and value a learner gives to a subject area (Ostroff 2012; Knowles et al 2011; Connolly 2008; Dewey 1938).

Theorists in relation to this research will be discussed throughout this body of work and more specifically later in this chapter. Philosophers (Illeris, Dewey, Vygotsky, Bandura, Piaget, Kolb and Mezirow) all reiterated the fact that learning is complex and not just something imparted from teacher to students. They suggest that learning is informed by experiences of life and the many benefits of workplace knowledge, obtained through critical self-reflection and the environment, in conjunction with the guidance offered by teachers, mentors and others. As an adult, one may experience learning on a daily basis in the way one acquires, engages and retains knowledge and information, but as a child the process of learning may be very different.

2.8 Child and Adult Learners

There are two theorists in the researcher's opinion most relevant to the teaching and learning of both children and adults, namely: John Dewey and Malcom Knowles. The following detailed synopsis of both is relevant to learning as a child and an adult, both in school and in the workplace.

2.8.1 John Dewey (1859 - 1952)

One of the best-known educational theorists John Dewey, philosopher and pragmatist, believed that children learn best when they actively partake in their own learning. For education to be real to a child they should be allowed to contribute to their own learning, allowing them to link present content to previous experience. Dewey has been recognised as an important developer of educational thinking in the twentieth century. He believed that learning took place by interaction, reflection and experience, while maintaining an interest in equality and fairness combined with a conscious awareness of the community which surrounds us (Dewey 1938).

Dewey claimed that every experience one may have, influenced another future experience. He gave the example of a child who learns to speak at a young age. He argued that the development of this new ability on the part of the child should naturally result in a further desire to develop their speaking and language skills, which consequently extends to the need for continuous learning of new words and sentences. The same process applies when the child learns to read. This development of learning does not end in childhood. He suggested that as an adult when we decide to enter a *'profession such as a teacher, nurse or doctor etc., by confirming this intention we thereby determine the environment in which we will act in the future'* (Dewey 1938, p14).

John Dewey lived to be 92 years old, having taught for 45 years and wrote over 30 books, a time span that witnessed dramatic changes in almost every aspect of human life. It is without doubt that he had the extraordinary ability to foresee opportunities and possibilities way beyond his own experience and was open to

ideas and the use of new technologies. He had the confidence in the aptitude, intelligence and ambitions of the average person. Furthermore, he maintained that going to college is not the same as getting an education, although he believed that quite often the two were confused. He suggested that one could go to college, get a degree but maybe not an education. He agreed that if one were to work in a factory or a shop, then this is the place where one could learn, gain experience and get an education (without a degree), providing they had ambition. Work experience for Dewey was '*simply what occurs when humans carry out transactions within their environment, an acting and being acted upon, a doing and being done to'* (Boud and Garrick 1999, p79). John Dewey maintained that people should work hard but more importantly they should also want to learn hard. He proposed that we should be more observant, keeping our eyes and ears open, talk to people, especially those who are older and wiser and above all read something every day (Hickman Neubert and Reich 2009). Receiving an education came from contact with people and the realities of life and not just from books. If our knowledge is to grow, then one must be always open to new experiences.

For Dewey, the aim of education is to motivate individuals to continue growing throughout their lives. Educational institutes, he claimed, must prepare people for more than simply making a living; they must create the desire for richer and more meaningful experiences; they must provide the tools by means of which the viewpoints of others can be understood, and conflicts resolved (Hickman Neubert and Reich 2009). The researcher found Dewey to be ahead of his time, fearless in the exploration and progression to understand education, learning and the working environment and who had the fundamental belief that if one had the ambition, determination and guidance then learning can take place regardless of the environment. While his area of research focused mostly on children and learning, his theories are still very relevant today and may be applied easily to adults and their learning. Another theorist well known in education research focusing mainly on adults and learning is Malcom Knowles.

2.8.2   Malcolm Knowles (1913 – 1997)

Malcolm Knowles (1980) was a prominent figure in adult education: his aim was to develop a unique theoretical base for adult education and the way in which we learn. While criticised by his peers for his work in this area (Henschke 2011), he was convinced that as a child we learn differently to how we might learn as an adult. Knowles used andragogy as his concept.

'Andragogy' is a term that has been *'in circulation since a German high school teacher Alexander Kapp coined it in 1833'* (Smith 2002, p3). The term lay dormant for many decades until Knowles resurrected it in 1966 making it popular again in the 1970's (Henschke 2011). At that time Knowles recognised that there were at least four vital assumptions (adding a fifth and sixth in later publications) about the characteristics of adult learners (andragogy) which were different to the characteristics of child learners (pedagogy) (Knowles 1980).

Andragogy is not the theory of adult learning. It is more about the characteristics of an adult learner such as independence, initiative, and a willingness to grow and develop one's own learning (Knowles 1980). Knowles claimed that *'andragogy was the art of science of helping adults learn'* (1980, p43). Later, after receiving feedback from teachers in relation to learning, he concluded *'that the use of andragogical and pedagogical principles should be determined by the situation and not by the age of the learner'* (Knowles 1980, p43; Knowles et al 2011, p43).

The characteristics of andragogy are outlined in Figure 2.6 and defined as the difference between pedagogy (child) and andragogy (adult).
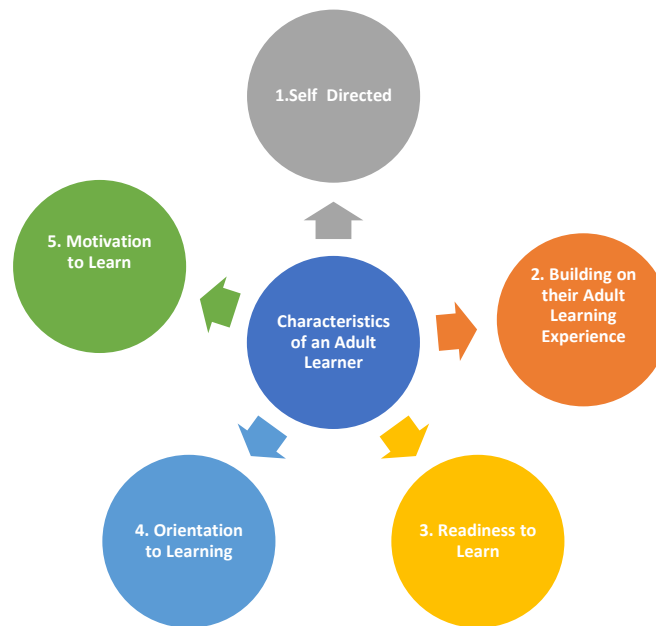
Figure 2.6 - The Characters of Andragogy (adult learners).
Adapted from: Knowles 1984, p12.

The key andragogical principles above as outlined by Knowles (1984) (Figure 2.6). However, when learning, adults demonstrate a number of characteristics (Figure 2.7). The one word which overshadows these characteristics and is not used in the previous diagram is *'mature'*.

Self-directed - as a person matures they move from being a dependent learner to one who is a motivated self-directing learner.

Building on their adult learning experience - as a person matures they accumulate a multitude of experiences that becomes a collective resource for learning.

Readiness to learn - their readiness (maturity) to learn is based on a person's personal and professional development as they mature.

Orientation to learn - As a person matures their need to be more self-directing increases.

Motivation to learn - as a person matures the motivation to learn increases.

Figure 2.7 – Characteristics Demonstrated by Adults When Learning.
Source: Knowles et al 2011, p38; Knowles 1984, p12).

Different characterises of learning from a child and adult perspective are presented in Figure 2.8.

2.8.3 From Pedagogy to Andragogy

	Pedagogical	Andragogical
1. **Classification**	• The learner is dependent upon the teacher for all learning. • The teacher assumes full responsibility for what is taught and how it is learned. • The teacher assesses the learning.	• The learner is self-directed and responsible for their own learning. • Self-evaluation is characteristic of this approach.
2. **Role of the Learners' Experience**	• The learner comes to the activity with little or no experience. • The experience of the instructor is the most important.	• Any change is likely to trigger a readiness to learn. • The need to know in order to perform more effectively in some aspects of one's life is important. • Ability to assess gaps between where one is now and where one wants and needs to be.
3. **Orientation to Learning**	• Learning is a process of acquiring suggested subject matter. • Content units are sequenced according to the logic of the subject matter.	• Learners want to perform a task, solve a problem, live in a more satisfying way. • Learning must have relevance to real-life tasks. • Learning is organised around life/work situations rather than subject matter units.
4. **Motivation for Learning**	• Primarily motivated by external pressures, competition for grades and the consequences of failure.	• Internal motivators: self-esteem, recognition, better quality of life, self-confidence, self-actualization.

Figure 2.8 - The Modern Practice of Adult Education, From Pedagogy to Andragogy. Adapted from: Knowles 1980, p43 and p44.

As previously explained Knowles divided Pedagogy (Child) and Andragogy (Adult) and while the diagram in Figure 2.8 clearly defined the differences, explanations may be necessary to truly understand why these aspects of learning

are so important in this research. The terms child and adult will be used in the following descriptions under each of the headings.

1. Classification

The figure above classified the child as a dependent learner, reliant on a teacher for learning and assessment while in contrast the adult is a self-directed, responsible learner who employed self-evaluation.

2. The Role of the Learner's Experience

In this case the child learners came to the activity with little or no experience, reliant on the experience of the instructor which is considered to be an important aspect of the learning process. Adults have an ability to evaluate and judge where they are currently in life/education and would like to be in the future.

3. Orientation to Learning

For the child, learning is a process of acquiring recommended subject material by the teacher, with content of subject set/outlined according to the logic of the subject matter. For the adult learners, they are independent, they want to perform a task, solve a problem, and live in a more satisfying way. Learning must have relevance to real-life tasks and be organised around life/work balance.

4. Motivation for Learning

The child is mostly motivated by external pressures, competition for grades and the consequences of failure. While this may be true of adults it is argued that they have additional internal motivators such as self-esteem, recognition, better quality of life, self-confidence, and self-actualization.

It is important to acknowledge the facts made by the theorists in their efforts to explain and define learning. One might assume that, regardless of our age in life, there are occasions when we might show characteristics of either pedagogy or

andragogy in our learning. Arguably this depends on the value or interest given to learning a particular subject or topic. The development of the child to an adult becomes obvious when the child moved from being dependent on the teacher for learning to an independent and self-directing adult and it is for this reason that children learn differently to adults (Knowles et al 2011).

Learning is still difficult to clarify. It would appear, that a singular approach to learning does not exist. This may be because some theorists concentrated on trying to develop a definition that covered a wider perspective. Some theorists reverted to the traditional explanation of obtaining knowledge and skills, while others explored different possibilities including emotions, social and community dimensions (Illeris 2009; Connolly 2008; Bandura 1977). However, for us as teachers, it is important to remember that our students learn in different ways. We need to be aware and ensure that every environment is conducive to their learning, whether in the classroom or in PPP.

2.9   Approaches to Learning

As previously mentioned, many students would have taken the traditional route to higher education at the end of formal schooling and upon completion of their terminal school examination, the Leaving Certificate. These days, with the increased navigation towards education and lifelong learning (Illeris 2003), a variety of routes into education are opening, which have seen mature students returning to education and work after time spent travelling or raising a family (Connolly 2008). Some return to education after unemployment or redundancy or simply because they want a change in career; others because the door to mainstream education may have been closed (Connolly 2008). Students access education through many modes from full-time, part-time, some online/distance-learning or as part of a class (Bowe-Deegan 2015). These diverse cohorts of students bring the '*lived experience*' to a learning environment (Connolly 2008). Experiences, which should be supported, valued and nurtured but never underestimated. The focus of higher education is to guide the student to become an independent learner with the ability to be self-directed and self-managed in their quest to learn, a format they previously may not have had exposure to.

Second level education tended to steer specifically in one direction, guided and directed with the aid of the teacher (Bowe-Deegan 2015).

Within the higher education system, Biggs (1987) maintained that '*students had either deep or surface intentions towards a particular task, arising from their immediate perception of the presented task'* (Biggs 1997, p12*).* In other words, the students themselves decided which approach they are going to take. One of the biggest drivers of student approach is assessment. If, for example, a basic assessment criterion of a subject is pass/fail, then students might possibly adopt a surface approach of precise memorisation, regurgitation and recall of this subject (Biggs 1987; Entwistle and Waterson 1988; Marton, and Sabo 1976). If the requirements were deeper and more meaningful, such as attempting to link ideas and understanding together (active, constructive and lifelong, allowing the student to be fully involved in their own learning), then a student, who is interested and wanted to learn, who had a desire to have a better understanding of a subject relating to prior knowledge, will undoubtedly take a deeper approach (Hemminki, Leppanena and Valovirta 2013).

Biggs (1987) mentioned a third approach namely; organising/achieving, which is linked to doing what is necessary to achieve the grades required by the student; such as time management, organisation of studies and focusing on goals (Biggs 1987). This third method, combined with deep learning, would ensure a broader more holistic engagement for achieving success (Lubin 2003).

2.10   Deep and Surface Learning

Deep and Surface Learning approaches are still relevant today. Bowe-Deegan (2015) compiled a diagram (Figure 2.9) adapted from Bowe-Deegan (2015, p42) and McCune (2003, p3) which outlined the same approaches in a different manner.   Deep and surface learning remain the same with the organising/achieving approach, divided into two separate components namely: monitoring of study and organisation of study.

Deep Approach	Monitoring of Study	Surface Approach	Organisation of Study
intention to better understanding	focusing on studies	intention to cope minimally with course requirements	organising your studies
making links between topics relating to the wider world	monitoring understanding and addressing problems	studying without reflecting	managing time and effort effectively
actively interested in course content	monitoring and enhancing the quality of work produced	memorising without understanding	maintaining concentration
looking for patterns and underlying principles		accepting ideas without questioning	

Figure 2.9 - Attributes of Approaches to Learning.

Adapted from: Bowe-Deegan 2015, p42 and McCune 2003, p3.

2.10.1 Deep Learning

Deep learning is defined as gaining a better understanding of the meaning behind information, making links between topics relating to the wider world and being actively interested in course content while looking for patterns and underlying principles (Offir, Lev and Bezalel 2008). From the above diagram, it clearly shows that if a student is to interact with information obtained, create appropriate and relevant arguments, patterns and examples, this in turn will lead to engagement and critical thinking. Therefore, the student ensures retention and understanding of said information (Schemeck 1983). In addition, monitoring and organisation of study ensures that the student is focusing on their studies, gaining a better understanding and addressing problems while mindful of the quality of work produced.

2.10.2 Surface Learning

On the other hand, with surface learning, students tend to concentrate more on memorisation, regurgitation and reproduction of information. In this case memorising does not lead or benefit the understanding and meaning behind the information. Surface learners could be identified by minimal interaction with course requirements, studying without reflecting, memorising without understanding and accepting ideas without questioning. For these surface learners, also known as rote learners (Anderson et al 2000), the task of remembering or recalling information is not effective because less information is remembered as efforts are placed on memorisation rather than understanding (Offir, Lev and Bezalel 2008; Schemeck, 1983). According to Marton and Saljo (1976) students might not learn what the teacher might want them to learn but rather what they (the student) deemed necessary, so as to answer specific questions for example (Yuen and Hau 2006). Biggs (2001) characterised students who took part in surface or rote learning as being detached from the purpose of the task, learning only what is necessary to satisfy a requirement, without effort or personal involvement (Biggs 2001). Whereas, those who wanted a better understanding, chose a deeper approach (Biggs 1987).

Entwistle and Waterson (1988, p1174) differentiated very clearly between surface learning and deep learning within the cognitive dimension, claiming that surface learners if questioned would for example answer by:
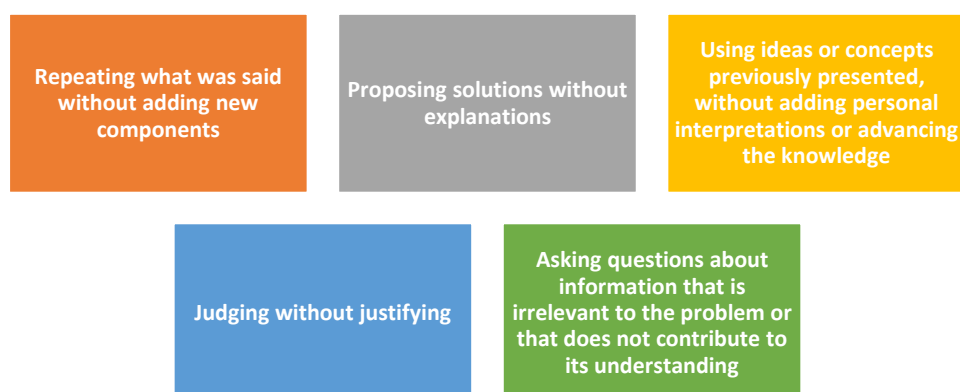
Figure 2.10 - Surface Learners.

Source: Entwistle and Waterson (1988, p1174)

Whereas deep learners would answer by:

Proposing new elements of information	Assuming advantages and disadvantages for a situation or solution	Creating new information from information that was collected, using hypotheses and quotes	Presenting proof for support by examples
Proposing one or more solutions in terms of judgment	Judgment supported by justifications	Handling a problem in a wider perspective	Developing new strategies with a wider framework

Figure 2.11 - Deep Learners.

Source: Entwistle and Waterson (1988, p1174)

From the above listing by Entwistle and Waterson (1988) it is very clear that a student needs to be guided more toward deep learning but '*how can deep learning be cultivated'* (Offir, Lev and Bezalel 2008, p1175).

2.11   Cultivating Deep Learning

Yopp (1988) claimed deep learning requires questioning. To question well is to teach well (De Garmo 1902) and in turn encouraged students to learn well (Socrates 469—399 B.C.E.). Yopp (1988) suggested that questioning is '*the source and beginning of thinking and comprises an effective tool for improving thinking and cultivating a learner to know how to learn'* (Yopp (1988) cited in Offir, Lev and Bezalel (2008, p1175). Yopp (1988) maintained that questions were an effective method to motivate students to learn while helping them to concentrate better on the task. A student who questioned the teacher/mentor/supervisor obtained a deeper level of understanding, enabling them to evaluate what they have learned while helping them to direct their learning according to requirement or need (Yopp 1988)*.* Equally, when a teacher/mentor or supervisor questioned a student, this too, promoted a better understanding, comprehension and deeper learning while encouraging better concentration and motivation (Bandura 1977). As a result, a change in attitude could potentiality lead to the development of an independent learner (Offir, Lev and Bezalel 2008; Yopp 1988). Additionally, finding ways to improve motivation, enhance a student's readiness to engage in

learning thus leading to the removal of barriers which prevent or impede learning according to Schuller, Preston, Hammond, Brassett-Grundy and Bynner (2004).

As educationalists, we cannot control what the student learns and while surface learning might be frowned upon, it may on occasion have its place, such as '*learning lines for a play'* (Biggs 1987, p21) or at least a combination of both formats when required as suggested by Webb (1997). Students who are in higher education may have some experience of the workplace environment, whether it be from a PPP experience as part of their academic pre-programme or as a summer job. The core aspect of the researcher's argument is that, regardless of the experience, learning does take place, a fact that must be highlighted. But is this learning deep, surface or maybe a combination of both? As teachers, we need to instil, develop and encourage higher forms of thinking so that students can develop a desire to learn, a need to know more and a passion for their goals within their chosen profession. Learning is something we can only do for ourselves. One needs a will and desire to learn, to meet personal goals and in evaluating learning to see if it has been meaningful and successful. In the researcher's opinion, PPP may encourage and develop deep learning but does learning always happen in a formal environment?

2.12   Formal and Informal Learning

According to Hoffman (2005) learning is understood to be both formal and informal. Formal learning generally is facilitated via a structured classroom-based arrangement. Informal learning is not as structured, but is usually intentional, with self-directed learning and mentoring seen as typical forms of informal learning (Hoffman 2005). In this age of lifelong learning we pursue and progress (Vaughan 2008) our own learning and development, raising our standards, gaining better skills and creating environments best suited to learning (Claxton 2006). Shea, Li, and Pickett (2006) suggest that '*good learning environments are learner-centred, knowledge-centred, assessment-centred and community-centred'* (p176).

A side effect of informal learning is noted to be incidental learning, generally arising as a consequence of an activity (e.g. assignment, task or interaction), although students may not always be aware of it (Marsick and Watkins 1990, p12). If traditional methods of learning were considered, which generally followed the formal learning process, one would probably visualise a teacher imparting knowledge or skills to the student. The student then practiced and learned this knowledge or skill until mastered. Incidental learning fostered and nurtured a greater ability to identify, investigate and solve problems (Bachtold 2013; Dolmans, De Grave, Wolfhagen and Ven der Vleuten 2005). Gradually too, we are becoming more aware of the differences in personality, ability and capabilities of learners and the need to tailor learning more to suit individual needs (Vaughan 2008).

The role of the teacher (mentor, supervisor and or colleague) in facilitating learning for individuals has become increasingly apparent. In 1978, Lev Vygotsky, constructed a learning theory which related to learning and development. His proposed concept the *'zone of proximal development'* suggested that what a student learns on their own could be very different to what they might learn with the aid of a teacher (Kozulin, 2003; Darling Hammond, Austin, Orcutt and Rosso 2001). Vygotsky believed that help, support and guidance, (which he called scaffolding) would come from a teacher or another who supported the student's learning and development, thus providing a safe structure to cultivate, progress and improve his/her learning (Kozulin 2003; Wells 1999; Vygotsky 1962). Steiner (1985) concurred with this notion stating that *'The influence of a live teacher/mentor frequently serves to validate a young person's own discoveries'* (Steiner 1985, p61).

Ultimately, these theorists may be said to have argued that it is necessary for us as educators (mentor, supervisor, and or colleague) to identify a student's strength/s and build on them, rather than looking at remedying their weaknesses. We can sometimes lose sight of the fact that as an educator we could have a profound effect on a student's progression through life and their work environment (Palmer 1989). Providing individual attention and/or supervised guidance for a student, situated in a purposeful work environment could go some

way to ensure that learning occurs (Brown, Collins and DuGuid 1989). Throughout this research there has been much debate regarding the location of where learning takes place. As long as learning occurs, in the researcher's opinion does it really matter? (Kozulin 2003; Wells 1999; Vygotsk 1962).

2.13   Learning in the Workplace

In the past, the transfer from school to the workplace was very distinct, with learning taking place in school or at higher level and work taking place in the workplace. In a similar manner to learning, the definition of 'work' is also multi-layered and complicated. According to the Oxford Dictionary and cited in Allan (2015) '*conventional definitions of work, centre on the mental and physical undertaking of an activity that has a goal'* (Allan 2015, p2; Oxford Dictionary 2015). However, Allan (2015) maintained that when the word 'work' is used in relation to 'learn', defining can be a little more problematic. He suggested that '*work'* can refer to '*work undertaken while on work placement or to classroom tasks'* (p2). He went on to say that '*when terms such as 'workplace learning', 'work-based learning' and 'work related learning' were used interchangeable and in varying ways that it becomes too difficult to differentiate and so problematic when seeking a specific definition'* (p2). Allan explained that in most cases with regard to PPP, the workplace may offer only a limited learning experience. Staff might be available to offer help, support and guidance to the student but it's the amalgamation of the workplace environment, combined with the instruction from an educational institute that form the best possible learning experience for students (Allan 2015; Billett 2001; Billett 2002). Cranmer (2007) concurred, further suggesting that the involvement of the employers could lead to not only professional development but the enhancement or change of personal skills and attributes (Hoskin 2019; Cranmer 2007).

'*Much writing on workplace learning is strongly shaped by the people's understanding of learning in formal educational situations. Such assumptions distort attempts to understand learning at work'* (Hager 2004, p3). If this is true, then the educational institute needs to be more aware of how exactly learning is achieved in the workplace. Collaborations from the education institute, combined

with employer and workplace staff contributions, guidance and support to the training of students, form a solid foundation of working as a team. This collaboration of employers or mentors and staff (known as communities of practice), could be viewed as significant where work, social interactions and relations were formed and considered by many to be very important in relation to learning in the workplace (Allan 2015; Collin and Valleala 2005).

2.14   Communities of Practice - Learning from the Social and Situational Perspective

The concept of community of practice is relatively new, first used in 1991 by Lave and Wenger and originally stemming from Bandura's (1977) social learning theory. Bandura (1977) claimed that *'most human behaviour is learned observationally through modelling: from observing others, one forms an idea of how new behaviours are performed, and on later occasions this coded information serves as a guide for action'* (p22).

In Communities of Practice: Learning, Meaning, and Identity, Wenger (1988) speculates that one might assume, *'learning takes place on an individual basis, as a result of teaching, and that this learning process has a beginning and an end and is completely disconnected from all other activities in our lives'* (p3). This assumption, he felt, is inaccurate within the field of social learning theory, as he believed we are all social beings with a thirst for knowledge and a value for that which interests us. As individuals, we pursue knowledge, understanding and meaning and have an ability to experience the world engaging with it in a meaningful way (Wenger 1988, p4).

The adapted diagram (Figure 2.12) below shows the four main elements of social learning theory (Wenger 1988, p4). Wenger, believed that while 'learning' was central, it could be interchanged with any other element and still make sense, therefore learning is the most important element (Wenger 1988, p4).
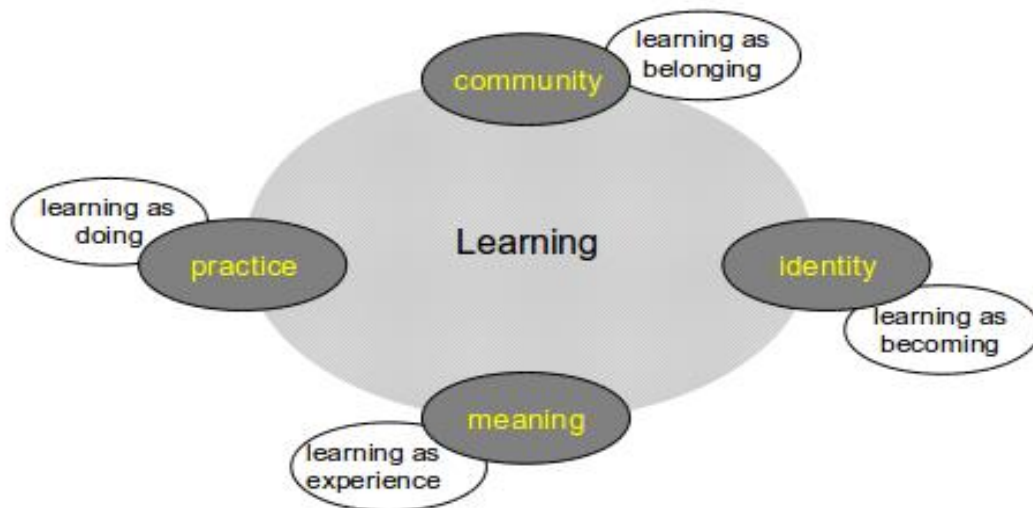
Figure 2.12 - Community of Practice.
Adapted from: Wenger (1988)

O'Kelly (2016) identified that '*the concept of communities of practice within education suggested as a valuable and useful tool for sharing of practice, resources and ideas*' (p5). Community education is the cornerstone of '*communities of practice*' (Lave and Wenger 1991) which can be defined as '*groups of people who shared a concern or a passion for something they do and learn how to do it better as they interact regularly*' (Wenger-Trayner 2015, p1).

Wenger (1988) argued that individuals initially join communities and learn from the periphery and as they become more competent, move closer to the centre. In a way, this is a good analogy for PPP, because as a student dental nurse, learning starts initially by observing (from the periphery) the procedures, practices and protocols of the dental practice. As students gain knowledge and confidence, they are invited to partake more actively. This form of learning, in this type of community of practice, is called situated learning which is concerned with how learning occurs on a daily basis (Clancey 1995). In this instance, learning takes place through the relationships formed between the student, the employer and other dental staff. Situated learning is an instructional approach where the student creates meaning from the real events (procedures, practices and protocols) within a dental practice (Stein 1998). Lave and Wenger (1991) developed this method, (their work closely linked to that of Dewey and Vygotsky), claiming that

students are more inclined to learn when they actively participate in a real experience (Clancey 1995).

There were a number of education theorists mentioned previously whose works it is important to recognise. While each bring a different perspective, their core concepts were of great significance and have particular relevance to learning, either in the classroom or in the workplace. For this reason, they were of critical importance to our understanding of the role of PPP in the development of the dental nursing graduate.

In 1994 David Kolb's experiential learning cycle (Figure 2.13) highlighted the value of learning and experience outside the classroom moving to the workplace. Experiential Learning Theory (ELT) is a holistic process which combined experience, perception, cognition, and behaviour. This theory is different to cognitive learning theories, which tended to highlight reasoning over affect, while behavioural learning theories deny consciousness and personal experience in the learning process (Kolb 1984; McCarthy, 2016).

Active Experimentation
(planning/trying out what you have learned)

Concrete Experience
(doing/having an experience)

Reflective Observation
(reviewing/reflecting on the experience)

Abstract Conceptualisation
Concluding/learning from experience)
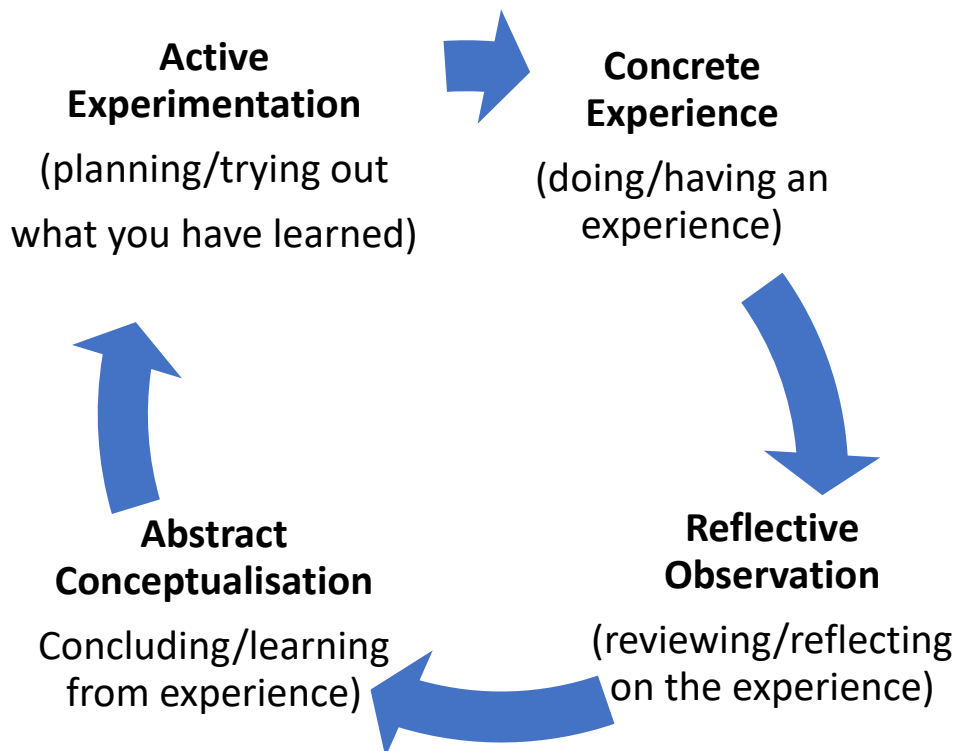
Figure 2.13 - Kolb Learning Cycle

Kolb (1984) claimed that the workplace environment provided the student with the opportunity to learn by taking part in new practices and situations, which were not possible in a classroom setting.

In his research he explored the socio-cultural context of learning, demonstrating that the role of others in the workplace, such as staff, mentors, supervisors, colleagues etc., is a crucial element in what and how students learn and their progression while on PPP (Kolb 1994). Formally Vygotsky echoed these same sentiments claiming that guidance received from a mentor or supervisor was imperative for learning (1978).

Previous to this Albert Bandura (1977, p22) concurred with this same notion, affirming that obtaining knowledge could in fact be '*hazardous'* if one is left to their own devices with regard to learning. John Dewey (1859-1952) aforementioned philosopher and educator, whose work primarily focused on pedagogy is still very influential and informative to current educational theory. Dewey had already proposed that education should be instilled in real-world practical experiences, suggesting that learning takes place by engaging in continuous meditative study and revision. While he considered alternative possibilities, prospects and opportunities, he still returned to the fact that students should be given the opportunity to think for themselves and articulate their thoughts in their area of chosen work (Boud and Garrick 1999; Dewey 1916, p146-147).

Jean Piaget (1896 - 1980) was a psychologist and in 1936 was the first to compile a study on cognitive development. He described his work as 'generic epistemology' more concerned with children, their development and how they see the world rather than on the learner and their learning (Piaget 1952).

Kolb (1984) believed there were two most significant aspects when it came to experiential learning '*the use of concrete, 'here-and-now' experience to test ideas'* (p21) and use of *'feedback to change practices and theories'* (p22) While Kolb's aim was not to develop an alternative to behavioural and cognitive learning theories, he suggested that 'experiential learning' be a holistic perspective which

would combine experience, perception, understanding and behaviour, thereby combining the styles of Dewey and Piaget thus gaining a better perspective of students and learning. Thirteen years previously in 1971, Bandura believed that we learn from one another. His social learning theory outlined his three 'requirements' for learning;

- retention - remembering what was observed,
- reproduction - duplicate of what was observed and
- motivation (Bandura 1971).

Illeris (2007) took thirty-six years to develop Bandura's concept further, in what many theorists of his time believed to be ground-breaking. Illeris constructed a model of learning (Figure 2.14) that considered the social understanding of learning implying that learning should include three dimensions, rather than requirements for learning.
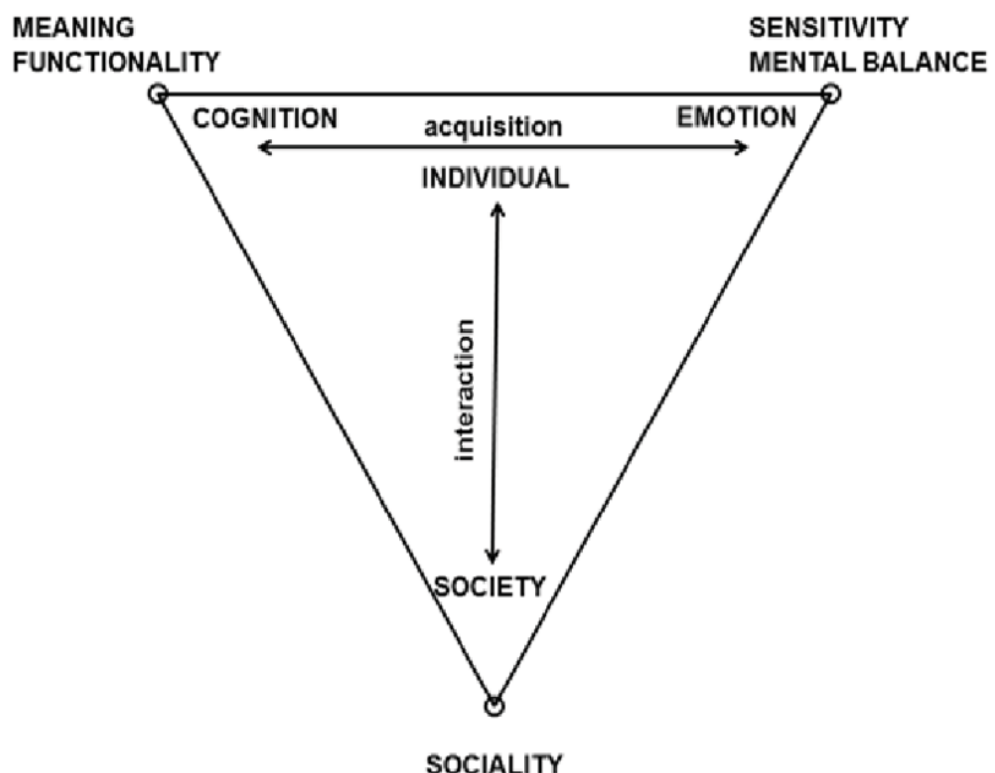
Figure 2.14 - The Three Dimensions of Learning.
Adapted from: Illeris (2007)

- The first dimension is: **'knowledge'**, encompassing understanding, skills, abilities and attitudes;

- The second is **'emotion'**, encompassing feelings, motivation and enthusiasm and

- The third is **'social'**, interaction with others, communication and cooperation.

Illeris's three dimensions certainly gave more depth and understanding to the learning process perhaps laying the foundations for many future theorists. Formerly, Illeris (2003) recognised that learning is not just about the acquisition of knowledge via an academic module or programme but the attainment of general life and personal qualities. He suggested that these types of skills were just as important as professional qualifications, learning not only in educational settings but in our working and social lives too. He maintained that this broad range of life and personal skills would lead to *'flexibility, openness, independence, responsibility and creativity'* (Illeris 2003, p397). His description of learning is the *'integration of two very different processes, an external interaction process between the learner and his/her social cultural or material environment and an internal psychological process of acquisition and elaboration'* (p398). Illeris (2003) was adamant that while his description is long-winded, he believes it covers all bases in the field of learning. Although his report acknowledged other learning theorists, and did not in any way, take from their work, he felt that they had chosen one or other process, which is fine in theory, but in his opinion, did not grasp the concept of learning.

In 2007 Eraut agreed with the work of Vygotsky (1978), maintaining, that if a student has the ability to learn, is supported by a teacher, mentor or supervisor, in an environment conducive to learning, then learning should take place. He suggested that every student has a base level of knowledge, which may be increased by practicing what they know and adding to it. This social interaction between the student, the teacher, mentor or supervisor reinforced supports and built on the student's understanding and knowledge. Ralph Ellison (1914-1994) suggested that *'Education is all a matter of building bridges'* (Meekel and Jenkins 2013, p1). Does this mean, that if the student is lacking ability, is not properly

guided and supported and is not in an environment conductive to learning that the '*education bridge*' will be less robust and sturdy leading to a collapse in learning? Meekel and Jenkins (2013) in their paper on PPP as an effective learning experience suggested that *'the value of the placement is the experience itself, providing the student with an experiential learning experience as a direct result of the student's active participation in the process'* (Meekel and Jenkins 2013, p1).

Vaughan (2008) in her report on '*Workplace Learning'* agreed with Kolb, when she suggested that without a better understanding of the students and how they learn, workplace learning may not be successful. Learning in the workplace could be a three-way process comprising of the student, the workplace and the learning achieved (Vaughan 2008). Learning in any environment required an acknowledgement and reflection of the student's background, age, education, prior learning, attitude and willingness towards learning and progression. Jack Mezirow, (2009) reminded us about the development of independence and how our perspectives change and evolve as we react to life experiences. Transformational learning (changes) may occur in a student's beliefs, attitudes, circumstances and feelings when they engage in critical self-reflection on life and learning experiences.

The various theories mentioned throughout this research, whose works it is important to recognise, each bring a different perspective. Their core concepts are of great significance and have particular relevance to learning, understanding learning both as an individual and in a social context, learning in the classroom and learning in the workplace. John Dewey, a pragmatist, is intrigued by the relationship between the individual and society and is a strong supporter for progressive education, believing that education should be based on the principle of learning through doing.

2.15   Reflection

'We do not learn from experience, we learn from reflecting on experience'
John Dewey

Reflection is an area of importance, seen as a deliberate and structured way of thinking. It is widely accepted by a number of theorists such as Dewey (1933); Kolb (1984) and Schön (1987) who believe that learning benefits enormously from the process of reflection. Dewey maintains that the purpose of reflection is to *'transform a situation in which there is experienced obscurity, doubt, conflict, disturbance of some sort into a situation that is clear, coherent, settled, harmonious'* (1933, p100). Answering a question with reflection helps to reason and explain one's thinking. Michele Everett (2013) in her paper claimed that reflection and the writing of a reflective journal benefits students by promoting well-being, '*an important outlet for relieving stress*' (p219). She maintained that reflection can give a student the opportunity to discover oneself, be socially engaged and communicate with others.

Callary, Werthner, and Trudel (2012) believe that reflection gave them an awareness of their learning and how valuable current and previous experiences were in influencing their chosen career path and the decisions and variations made over time due to both life and learning experiences. They go on to say that if '*students focus their reflections only on academic experiences, then they may not fully understand their career aspirations'* (p17). Jarvis (2009) noted that some graduates may perceive a situation in a certain way based on what they had learned previously. Therefore, it is through the act of reflecting that a graduate will understand the true meaning of transitioning from student to graduate and graduate to employee. Reflecting creates an awareness of our intentions, it may guide us to know ourselves better, our actions, likes and dislikes. Reflection helps us to acknowledge our career aspirations, our priorities and interests and question our beliefs and ideas (Jarvis 2009). It is because of these reasons that Jarvis (2009) and Moon, (2006) maintained that reflection is essential because it leads to a deeper understanding of oneself and one's experiences.

2.16   Benefits of Learning through Doing

The core argument of this study and the literature presented in this chapter is that PPP is a fundamental part of a student's development. It gives them the chance to see what it is like to live and work in an area relevant to their academic

programme. The theory learned in the classroom may be put into practice, engaging in real-life work practices (Meekel and Jenkins 2013). The student enhances their knowledge and learning, develops their skills and capabilities while on PPP. *'Many third-level institutions worldwide, regard the PPP experience for undergraduates, as a key contributor to high academic standards and to the employability of their graduates'* (Sheridan and Linehan 2012, p18). This statement has been echoed in various ways, in many publications, strongly suggesting that the purpose of PPP is to learn, to help students develop a greater understanding of the practical and theoretical expertise required for their chosen career. This offers the student an opportunity to learn new skills while engaging in real-life situations (Harvey et al 1997; Blackwell et al 2001; Meakin 2010).

PPP according to Tucker (2006) bridged the gap between theory learned in higher education and the practical skills required for the workplace (Tucker 2006). It provided the student with the chance to see what it is like to live and work in an area relevant to their academic programme (Katula and Threnhauser 1999). Theory learned in the classroom can be put into practice, enhancing and developing their skills and capabilities while on placement, and at the same time gaining additional knowledge. Many skills are developed, such as working on their own initiative, working as part of a team, communicating with fellow colleagues, management and/or patients and learning to problem solve (Lalor and Doyle 2005). Students get the opportunity to understand the realities of life and the working world (Chen, Hu, Wang and Chen 2011). PPP will unquestionably, enhance the student's confidence and help them to gain a better insight into their own personal abilities and capabilities such as organisational skills, patient/customer care, self-discipline, and presentation of self (McMahon and Quinn 1995). PPP could be viewed as the provider to aid students in their progression, development and learning, both as an employee and citizen of their community (Boud and Garrick 2004; Meekel and Jenkins 2013).

Students on such PPP crossed the bridge from the world of higher education to the world of work (Meekel and Jenkins 2013; Tucker 2006). Here, they are required to deal with real work situations and problems, transferring the theory learned in the classroom to the workplace. This transference ensures that the

students are aware of their capacity of knowledge and skills or lack thereof, thus encouraging deep learning in order to progress and develop (Meekel and Jenkins 2013; Bowden 1997). 'A *Typology of Learning Outcomes at Work'* developed by Eraut (2007) showed that '*there is little a person cannot learn in a workplace environment'*. In his report, *'Learning from other People in the Workplace',* Eraut is confident that a person could attain learning outcomes such as increased job performance, personal development and achievement. Combined with better awareness and understanding of self, colleagues and situations, people gain an ability to learn from experiences, decision making and problem solving, a capability to collaborate with colleagues and management and be accomplished in leadership and supervisory skills (Eraut 2007). *'People are often unaware that they are learning through the work they do'* (Eraut 2007, p404). Eraut suggested that people don't associate themselves with learning within an informal setting such as the workplace and associate themselves only to learning within formal settings such as a classroom. Awareness and self-confidence, successfully meeting challenges at the workplace, will very much be dependent on the support (scaffolding) (Vygotsky 1978) provided by supervisors, mentors or colleagues.

'Learning at work occurs through doing things and being proactive in seeking learning opportunities; and this requires confidence' (Eraut 2007, p417). The researcher agrees with Eraut that learning does take place by doing, in an environment conductive to learning. However, if the environment is not appropriate would learning still take place? The classroom or the workplace can enhance or impede learning. Moos (1987) believed there were two systems, the environmental and the personal structure. The environmental structure is the organisation and physical setting and the personal structure included student expectations, personality, and coping skills and the interaction between teacher and student (Moos 1987).

While researching this topic area the researcher found that the benefits of PPP definitely outweighed the challenges (Gelman 2011). The next section highlights the challenges faced by students.

2.17   Challenges, Issues and Shortcomings Faced by HEI

Much of this literature review is populated with positive aspects yielding over-whelming support for PPP with challenges, issues and shortcomings not being as widespread.

The stakeholders namely, *'HEIs, employers, and students all agree that the many benefits provided by placements, is a win-win situation for all'* (Sheridan and Linehan 2011, p65). As noted previously the PPP experience is hugely beneficial to the all stakeholders, the three-way link between students, employers and HEI, however, the process and arrangement of such placement can be time consuming and problematic for the HEI.

Students and employers expect HEI's to include a work placement element as part of an academic programme so that generic and employable attributes and skills are included (Sheridan and Linehan 2011). These requests of inclusion and finding a suitable work placement can only mean that both the student and the HEI have to work harder to meet the demand of the employer. Bukaliya (2012) in his report agrees with employers, he maintains that a HEI representative should be involved in finding a suitable placement for students so that they gain a meaningful learning experiences with feedback monitored from both student and employer and that each practice or organisation should be vetted or audited to establish the level of skills, qualifications and technology available in each practice. A very time-consuming venture for any HEI representative but one which AIT carry out for each DN student.

To get a work placement running properly takes a considerable amount of time and resources. While all stakeholders (student, employer and HEI) need to work together to ensure this smooth running, it can be difficult and complex to get everyone to stay on the same page. Crow (1997) maintains that we should not see work placement as time away from the class room, instead it should be seen as a valuable experience. Harvey et al (1997) suggests that students who are on work placement and out of the day to day academic activities and culture for a period of time, may find it difficult to return, so for that reason it is import that the HEI continue to be part of the student's academic life. Again, a time-consuming venture which may gain atonement in the future.

2.18   Challenges, Issues and Shortcomings Faced by Students

Some studies suggest that what may be identified as a challenge for one student is not necessarily a challenge for another, such as moving long distances from home, away from family and friends in order to complete a suitable placement (Keating 2003; Cunningham 2010; Little and Harvey 2006). Some students might see this as a benefit and not a challenge (Little and Harvey 2006).

Dental Nursing students like every other type of student face many issues or challenges during their educational training, and on occasion these challenges can affect their academic success. According to Leong, Laughter, and Rowe (2016) *Students can suffer from personal problems, lack of social and academic integration, insufficient study time, and financial difficulties* (p433). Students who succeeded were found to be those that were involved and committed to their academic programme and had positive relationships with staff and peers

Eick, Williamson and Heath, (2012) in their paper; *'A Systematic Review of Placement-Related Attrition in Nurse Education',* claim that there are a number of reasons why PPP can be a negative experience. Their study investigated placement related attrition figures. Student nurses interviewed stated that they witnessed negligence and misconduct while on placement and in some cases a poor quality working environment. They experienced negative attitudes and lack of support from the nursing and managerial staff (Eick et al 2012). As a result, the student nurses felt neglected by their University and mentor, which is, they believed due to excessive numbers of students in one location. The nurses' experiences on placement highlighted and confirmed previously perceived ideas that nurses were misunderstood, unappreciated and underpaid. Student nurses in this study found that if they were friendly, courteous and exact about their work, then they were more likely to suffer burnout before completion of the placement experience (Eick et al 2012). Six years previously, Andrews, et al (2006), in their paper, '*Professional Roles and Communications in Clinical Placements:* a *qualitative study of nursing students' perceptions and some models for practice',* concurred with Eick et al (2012). They claimed that ward managers (mentor/supervisor) played a significant role in influencing staff attitudes and actions towards student nurses while on PPP (Andrews et al 2006). Student

nurses were often seen as an extra pair of hands on wards and lacked support and specific learning experiences, leaving students feeling disheartened about their career choice (Eick et al 2012; Andrews et al 2006). While the above studies related to nursing students, negative experience about supervisors in other professional practice placement were evident, such as in the hospitality industry.

Yafang and Gongyong (2000) in their writing '*Hospitality Students: Satisfaction towards their Internship'* declared that lack of support from supervisors combined with absence of timely and adequate feedback from supervisors were most likely to lead to dissatisfaction with their PPP. Students interviewed felt that *'repetitive work with little freedom to apply and test knowledge'* was an issue (Yafang and Gongyong 2000, p1071). Bukaliya (2012) in his paper, which highlighted potential benefits and challenges of PPP, claimed that students on placement, in some instances felt disharmony among fellow work colleagues. This is understandable in some ways because as an employer or an employee, one might be reluctant to divulge or allow students to witness important information or documentation. Disclosure of such material by employees to PPP students, from a confidentiality perspective, could threaten their position within the company (Bukaliya 2012). Bukaliya acknowledged that this perceived threat is due to the fact that employees, while having copious amounts of experience, lacked relevant qualifications, the student in some cases possessing superior credentials (Bukaliya 2012).

Additionally, another issue or challenge facing students is finding a suitable placement/employer, especially now with the increase of students needing PPP experience. Obtaining suitable placements therefore can pose a huge challenge for many institutes, especially in times of recession, often forcing such institutions to place students' long distances from home and family, possibly, causing anxiety and worry, thus leading to interference with the learning process (Keating 2003; Cunningham 2010; Little and Harvey 2006). The consequence of a student not learning or not taking part in placement according to Duignan (2002) is that they could fail academically. If this is the case, pursuing an academic qualification without a placement element could be deemed detrimental to one's career. A suggestion by Buckley and ElAmoud (2011) is that unpaid placement should take

place during term time, allowing students to get paid summer work if they wished. Placements that needed to be taken during the summer months required, for example, a shorter day policy. In theory, this is possibly a good idea, but in practice a very difficult scenario to arrange. However, according to the students in their report, payment during placement is not an obstacle, because they claimed that even though they did not get payment, the employer made it up to them by *'investing time, training, energy and expertise providing the student with a better overall experience'* (Buckley and El Amoud 2011, p19). The viewpoint of the students in this instance is very mature. However, financial uncertainties for students may be a very real and prominent prospect.

Negative learning experiences on a PPP experience hampers and obstructs learning due to anxiety, worry and/or stress, felt by students who took part in PPP (Casey Fink, Krugman and Propst 2004). Their report highlights the apprehensions felt by graduates during the transition from student to professional general nurse claiming that the worry, fear and anxiety felt did not stem solely from the aspect of work and its environment but from financial issues, where educational debts may be still outstanding (Casey et al 2004). The report recommended that the educational institution together with the employer should *'facilitate an improved integration'* (Casey et al 2004, p341) during their first year of employment. It also stated that preparing necessary and essential groundwork for the student who is about to commence an independent career after graduation is of vital importance (Casey et al 2004).

Gelman (2011) in her paper referred to anxiety in relation to learning as having two parts: worry and emotions. '*Worry the cognitive component refers to concerns about one's performance and self-evaluation while emotion refers to the physiological changes experienced as tension and nervousness'* (Gelman 2011, p296). Her report stated '*that students by their very definition will lack knowledge, skills and abilities'* (Gelman 2011, p307). While Gelman (2011) recognised that these fears are very real for students on work experience, she is hopeful that students would be open, interested and conscious of learning from their work placement experience, while always being professional in their attitude and manner (Gelman 2011). Caroline Gelman (2011) wrote about the challenge

of students feeling anxious and worried before commencing a placement. While her paper specifically deals with the anxieties of social work students, her research also indicates that anxiety, worry and stress proved to be a challenge for students across a number of disciplines (Gelman 2011). Students, because of anxiety, lacked confidence, experienced emotional stress, felt worried and were concerned about their role while on placement (Gelman 2011). Her paper proved that while such challenges of anxiety, worry and stress do exist, the students taking part in her research believed that these challenges did not hinder their learning while on placement (Gelman 2011). Boud and Solomon (2003) cited in Linehan (2008) suggested that it is necessary to be aware that these students, in some instances, are faced with the challenge of being both an employee and a student combined with the increased responsibility of learning (Linehan 2008).

Mathews, Simpson and Crawford (2013) concurred, suggesting that students who go on placement want to be confident, they want to learn and develop their knowledge and skills base. They suggested that students returned from placement transformed by their experience, feeling positive about their knowledge and abilities. However, they recognised that students, both prior and during PPP, experienced worries, fears and anxieties in relation to their own abilities, the demands of a busy practice and the expectations of the management and staff (Mathews, Simpson and Crawford 2013). These challenges or feelings of worry, fear and anxiety are all very real (Figure 2.15) but as Mathews et al (2013) pointed out, those same feelings might be very real when qualified and working in practice, although will most likely abate as knowledge and skills increase (Mathews et al 2013).

HOPES	FEARS
Expand knowledge and learn	Failing
Build a good relationship with people in practice	Age - not taken seriously
Get on with everyone	Not getting on with others in practice
Build confidence and self esteem	Too much work load and too long of a day.
Have fun	Stress
Enjoy the experience	Other life committments, study, work family
Understand the work for it to make sense	Being left unsupervised

Figure 2.15 - Example of Students' hopes and fears about first placement. Adapted from: Mathews, Simpson and Crawford 2013, p51.

While the challenging aspects of PPP were still relatively sparse in comparison to the benefits, there are a number of considerations and concerns, especially the 'link' or 'gap' in relation to the quality of graduates produced and what the market demands. The EU recognised that there may be significant differences in the make-up and nature of PPP. They were generally associated with positive outcomes for employment and acquisition of skills and knowledge and an easy transition from education to the working life (Harvey 2003). Unfortunately for some, this easy transition did not always happen, sometimes because of choosing the wrong placement (English, Manton, Covarrubias, and Schirru 1991).

James Gentry (1990) in his book '*Guide to Business Gaming and Experiential Learning',* clearly pointed out that while PPP is '*extremely high on experience, the quality of the learning involved may be suspect and vary greatly from one that actually has negative learning (poor work attitudes, for example) to extremely positive experiences'* (Gentry 1990, p18). Gentry (1990) supported the claim that PPP experience may lead to learning if the right conditions (support structure) were in place, namely mentors, teachers and environment (Boud and Garrick 1999). Furthermore, Gentry (1990) suggested that what the student takes away from a particular PPP experience is often personal to their own opinions, perceptions and ideas of the experience (Gentry 1990). One might argue that if a student is placed in an environment that retained all the appropriate learning resources, then learning should occur. However, this might not necessarily always be the case.

While recognising that PPP is a planned and coordinated method of gaining experience on the job (Sheridan and Linehan 2012), the majority of PPP required a supervisor or mentor/guardian for the development of the students' skills, abilities and knowledge. Curtis et al (2009) in his *paper 'Making Short Politics Placement Work'* suggested the word '*work'* be dropped from PPP and rather than placing a student where they are required to do menial, tedious and predictable activities, he proposed that students should go to the PPP and undertake a '*research process, making them producers rather than consumers of knowledge'* (Curtis et al 2009, p66). A notion that novices couldn't possibly do any more harm to the world of politics, that hasn't already been achieved by so called experts in the field, is a concept that might not work as well where clinical and practical skills are required.

McGinn (1999) suggested that matching the student with the employer/placement and ensuring the preferences of both student and employer/placement were taken into consideration may be a solution to the problem. This process may be very time consuming and expensive initially but can be very rewarding as databases of practitioners are accrued and an appreciation of the different personalities constructed. Overcoming these challenges and difficulties may be possible if the student is made aware of the benefits of PPP i.e. that there is real and great potential for learning, progressing and achieving valuable experience in a professional practice placement environment (Young, Wright, Stein 2006).

2.19   Conclusion

Overall, the literature would seem to suggest that PPP and other work-based experiences are worthwhile additions, not only to an academic programme, but to the life and educational value of the students and the stakeholders. For the researcher, the most compelling evidence is that, with scaffolding and support structures made available, PPP is a significantly positive component for not only the student but also the employer and the educational institute. It is imperative that those engaged in the development of the PPP process, the education institute, the stakeholders and policy makers, strive for collaboration and teamwork when it comes to the welfare of the student, the learning achieved, and

the worthwhile experiences obtained through academic life and PPP. While challenges do exist for students, the benefits are also obvious; learning through doing in the workplace, building confidence, abilities and attributes. It is without doubt that the general acceptance of PPP and its associated benefits completely outweighed the negatives.

CHAPTER 3: Methodology, Methods and Data Collection

3.1 Introduction

At the beginning of this study the researcher recognised that the true understanding of PPP would be achieved only through an in-depth, multi-method exploration of the lived experience of dental nursing graduates. Gaining access to this understanding, required the researcher to employ an approach that would enable her to hear, see and experience the reality of the PPP from the perspective of the graduate. The research question, approaches used, the paradigm and theoretical perspective and the methodologies used are described in this chapter. This is a qualitative study which incorporates some quantitative data collection. In addition, topics such as ethics, the role of the critical friend, limitations, reliability, credibility and validity are included.

Creswell (2014) suggested that in order to increase our understanding of a topic one must perform a thorough evaluation of research in the area. This is achieved by carrying out a series of steps used to collect and analyse data. Creswell claimed that research added to our knowledge, improved practice and informed policy making decisions (Creswell 2014). Research in this instance is directed by the methodology, but it is the paradigm which provided the lens which guided us through the nature of reality (ontology), and how this reality is understood (epistemology). Ontology and epistemology are two important components of a philosophy of knowledge. In this chapter the researcher reflects on the ontological, epistemological and methodological assumptions which inform the decision to use Heidegger's hermeneutic phenomenology in relation to the research question.

The structure, organisation and presentation of this chapter followed the guidance of Denzin and Lincoln (2005, p23) who suggested that each piece of research has five stages namely: the researcher, theoretical paradigm, research strategy, methods of collection and analysis and finally interpretation and evaluation (Figure 3.1).
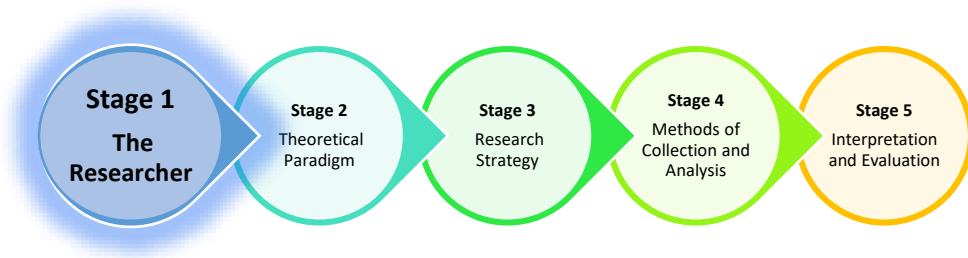
Figure 3.1 - Research Structure Organisation and Presentation

3.2   Stage 1:   The Researcher

Denzin and Lincoln (2005) argued that there is no one single method to '*grasp all the subtle variations in ongoing human experience'*. Because of this, they suggested that a '*wide range of interconnected interpretive methods'* were best suited for an experience to be clear and understandable (Denzin and Lincoln 2005, p21). In this case, the role of the investigator is to act as a device where data is collected, filtered and mediated through the researcher as a human instrument. This contrasts with their understanding of the quantitative researcher where data collected is processed through databases, records and technologies (Denzin and Lincoln 2005). They suggested that the qualitative researcher needed to be open and allow the reader to understand his/her position. For this they suggested the use of a reflective research diary which will be discussed later. The researcher's diary (Appendix 7) the private and personal insights, thoughts and reactions to their research process (Denzin and Lincoln 2005; Greenbank 2003).

As previously mentioned in Chapter 1, the researcher's position within AIT is as lecturer and programme/placement coordinator. She is aware of the structure, development, benefits, challenges and opportunities associated with PPP. While Chapter 1 gave a comprehensive account of the researcher, her role as a lecturer and the tasks assigned to that role, in this chapter it may be necessary to briefly review this as a reminder of where this research stems from.

The researcher believed that her role as researcher is a privileged and an exciting one, where she is allowed access to the personal lives of the dental nurse. While

the researcher might have been influenced by her experience and involvement as lecturer in AIT, she needed to remember that it is necessary to develop a stance that is neither too involved nor overly detached, finding a position known as *'empathic neutrality'* (Quinn Patton 2002, p50).

Through informal conversation in the classroom and after a period of PPP, the researcher has received varying stories relating to student placement experiences. As the years passed and the cohorts departed the educational system, the researcher realised that the student experience of each year changed little if at all. Invariably reviews were very positive with little if any negativity expressed about their PPP experience. While the investigator has anticipated that this stream of positivity would continue for many years, she was aware that something might be missing. This niggling suspicion encouraged the researcher to delve deeper and investigate if, in fact, there was something more to be considered about PPP than that presented by the students, at that time.

This was the start of the researcher's journey, and while she continued to be involved with the students in the classroom discussion context, during and after a placement period, she was very aware that the graduates' and not the students' experience, may have contained some if not all the answers to her questions. The researcher believed that the graduates' reflections, discussions, conversations and storytelling would give her a greater understanding of their lived experience while on PPP, enabling her to gain a better understanding of the placement experience. The researcher is aware that this investigation is based around a small case study, involving one cohort of graduates on an academic programme in a solitary educational institute. However, while the volume is small it is anticipated that the impact would be big. It is envisaged that the findings obtained, in conjunction with the complementary data obtained from the dentists, provided a wider perspective within this study, informing the researcher as a lecturer and programme/placement coordinator, the management and programme academic team. Knowledge acquired would inform others within the Institute who wished to incorporate a placement element into their academic programme(s). In addition, the researcher expected that the findings would have a significant impact on future policy development and procedures.

Mindful of that, the researcher sought to engage in a study that would help her understand the views, perceptions and experiences of dental nursing graduates who had completed PPP (Creswell 2009). Their voice, opinions and perceptions while reflecting on their experiences were used to explore the benefits and challenges faced during the PPP period. From the outset, it is acknowledged that there may be multiple valid viewpoints and for this reason, the focus of this research is not on the development of a hypotheses but rather an attempt to explore the meaning of a phenomena (Holden and Lynch 2004). Therefore, this is not just a tick box exercise. Mason (2002) and Patton (2002) claimed that researchers who asked participants to tick boxes in order to investigate and seek an understanding were wasting their time, because to truly comprehend participants' experience, the investigator needed to listen to the voice and hear the stories as they reflected on their experiences. For the graduates to reflect, they needed to process their experiences, make sense of them and rate their importance. Costa and Killick (2008) suggested that '*reflection involves drawing forth cognitive and emotional information from several sources: visual, auditory, kinaesthetic, and tactile*' (p217). In this instance, through the process of conversation, the graduates reflecting on their experiences were encouraged to engage more deeply to gain a greater awareness of their experiences, while linking them to learning, development and progression.

When the researcher was considering the most suitable and appropriate way of collecting data, she conducted a pilot study with the then second and third year students (level 6 and 7 respectively). The purpose of this study was to gain feedback regarding the method of collecting data rather than the value of the data collected. This pilot was conducted before Christmas 2014. First year students were not included because they had no experience of the PPP. Findings helped inform the further development of the study but were not directly included in the current research.

In addition to the pilot study the researcher engaged with the work of theorists such as Streubert and Carpenter (2011), Giorgi (2009), Creswell (2007), Denzin and Lincoln (2005), Holden and Lynch (2004) Mason (2002) and Patton (2002) etc., who influenced the design, direction and focus of this research.

Predominately, the researcher was aware that she needed to locate the research within a broad qualitative paradigm, as this exploration was more concerned with interviewing graduates, and listening and learning from their stories. Although it was recognised that while qualitative methods would provide substantive data it was necessary to supplement this with quantitative information as it too, had a place in the formation of a triangular effect to gain a more holistic view of the phenomenon that is PPP. Furthermore, the researcher needed to listen and try to understand the graduates' perceptions, views and understandings of PPP. This led her to create a phenomenological study. With this in mind the researcher considered the use of an interpretive paradigm combined with a qualitative methodology and method of data collection for direction and guidance in this research.

3.2.1 Ethical Considerations

All research requires ethical approval as '*ethical issues may stem from the kinds of problems investigated by social scientists and the methods they use to obtain valid and reliable data'* (Cohen et al 2007, p51).

On this occasion, ethical approval was sought from the academic institution and awarding body of the ethics committee at DCU before the various phases of this research commenced. This involved providing an outline of the research, a timeline for each phase and the documentation provided to the participants such as the background premise of the research, the 'Plain Language Statement' (PLS) (Appendix 5) and informed consent. Ethical approval was secured from the committee. Acquiring ethical approval ensured that each participant had the choice to participate or not.

3.2.2 Legal Considerations

Listening and learning from graduates' stories needed to be surrounded by a code of ethics. The strategies to reduce potential ethical controversy encapsulated four guidelines namely:

- informed consent,

- deception,

- privacy and confidentiality and

- accuracy (Denzin and Lincoln 2005, p144).

Additionally, the research data was undertaken in accordance with Section 33, Data Protection Act 1998 (Irish Statute Book 2018).

3.2.3 Strategies to Reduce Potential Ethical Controversy

This research involved direct face-to-face contact in conjunction with mobile communication devices such as phone, FaceTime, Skype and email, where participating graduates outlined personal recollections of their lived experiences of PPP. Using guidelines outlined by Denzin and Lincoln (2005) the following strategies were compiled.

3.2.3.1 Informed Consent

The researcher is very aware that informed consent is a right of each participant involved in this research. Participants agreed to be involved in this study on a voluntary basis, via their on-line access to the data collection media. At the start of each phase they were asked if they were happy to continue and were again reminded of the PLS.

3.2.3.2 Deception

A conscious decision was made not to engage in any form of deception.

3.2.3.3 Privacy and Confidentiality

In addition to the participants' informed consent which had been obtained they were also reminded that their identity and that of their placement practice would be always kept confidential. Initials were used only in the write up of the

transcripts. Excel codes were used thereafter when outlining answers, statements and comments from participants throughout the research study.

3.2.3.4 Accuracy

The final principle that was considered was accuracy; every effort was made to transcribe a precise interview from each of the participants in conjunction with an accurate representation of the surveys performed. The participants were informed that they could obtain a copy of their transcript on request via email.

The PLS as mentioned above, outlined the purpose of the research, assuring the participants of the ethical parameters which included their privacy, anonymity and confidentiality and the right to view their transcript on completion.   During each process the participants were reminded that at any stage they could cease their involvement with the study.

3.2.3.5 Information to Participants Re: Phases

Phase One - The participants, as mentioned, were made aware of the PLS via Facebook and were invited to complete the survey. Once they had clicked on the survey link it was deemed that they were agreeing to be participants of the study. On completion, they were requested to provide an email address if they were interested in taking part in any of the following phases.

Phase Two - The participants for this phase were invited to take part in a focus group and were informed from the beginning that their involvement was voluntary. They were offered the opportunity to withdraw from the research at any time and it was explained that their names would be kept confidential. If they were quoted, then a code or pseudonym would be applied. The participants for this phase were graduates of the AIT H.C. Dental Nursing Programme and were in the process of completing the DN add-on B.Sc. programme within AIT.

Phase Three – The participants for this phase had provided their email address after completing Phase One, thereby confirming consent to progress to another

Phase. The researcher emailed each participant, explaining the research and asking for their phone/Skype details. Confirmation of consent was established when contact details were emailed. When the researcher contacted the participants by their preferred method (phone, Skype or FaceTime) they were once more reminded that they could withdraw without any obligation from the research, at any stage. It was explained that their names would be kept confidential but if quoted that a code or pseudonym would be applied.

Phase Four - This phase focused on the dentists' perspective via a hand-written survey. They were provided with the PLS and if the dentists completed the survey it was considered an agreement to be involved in the study. Once more the participating dentists were advised of the ongoing anonymity and confidentiality offered through the research process.

3.2.4   Managing the Relationship of Researcher and Participant

Throughout this study the researcher was very aware that she and the participants had a lecturer/student relationship. While the majority of graduates had left the institute, others had proceeded to further education. At this point it is important to acknowledge that the graduates may still see the researcher as a lecturer and not as a research investigator. For that reason, in order to counteract the situation, each interview commenced with open and general communication between the researcher and the participant about themselves, family, work, travel, study etc. This open communication it was envisaged would create a rapport through common areas of interest, thereby putting the respondents at ease (Johnson and Macleod 2003). At this stage in the conversation the researcher emphasised to the participants that they needed to speak openly and honestly, reflecting on their PPP experiences and not to anticipate what the researcher might want to hear. For that reason, the face-to-face interviews and the focus group did not run to a particular structure, instead finding common ground with questioning bearing a topic list in mind.
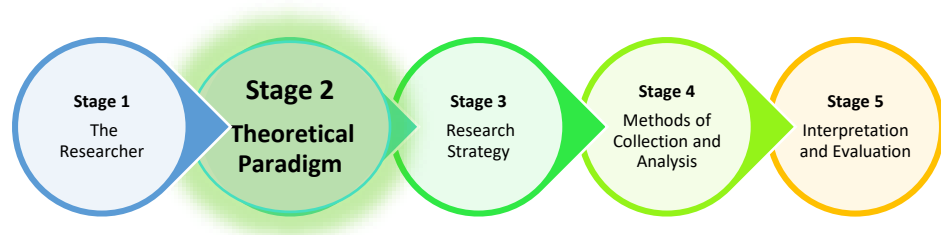
3.3 Stage 2: Theoretical Paradigms and Perspectives

Denzin and Lincoln (2005) in their model suggested that it is important to examine theoretical paradigms and perspectives because we as researchers are guided by our own principles and beliefs about:
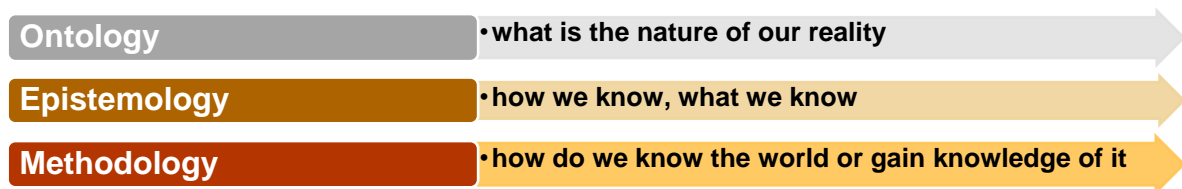
Figure 3.2 - Principles and Beliefs.
Adapted from: Creswell 2009, Neuman 2000, Denzin and Lincoln 2005,
Crotty 1998, Guba and Lincoln 1994.

3.3.1 Ontology and Epistemology

Ontology and epistemology are considered to be two important components of the philosophy of knowledge (Creswell 2009; Neuman 2000; Crotty 1998; Guba and Lincoln 1994).

3.3.1.1 Ontology

Ontology has been described as the study of the nature of reality, the enquiry of how something exists, its life, nature or structure; it's about answering the 'what is' questions (Creswell 2009; Neuman 2000; Crotty 1998; Guba and Lincoln 1994).

Crotty (1998) proposed that one's existing world only became meaningful when it was made sense of. Knowledge did not happen without having been constructed. As individuals we construct our own world/knowledge in our own way, shaped by our background and social influences. The goal of this research is to understand and interpret the meaning behind the experiences of the participants involved in PPP. Predictions and generalisations, bound by time and context (Hudson and Ozanne 1988), are of little interest to the researcher.

3.3.1.2 Epistemology

Epistemology has been defined as the study of one's method of acquiring knowledge. This may be further explained as the way a person knows things, the explanation of how they know, what they know, thus answering the questions 'how' and 'what' (Creswell 2009; Neuman 2000; Crotty 1998).

It has been reported that ontology and epistemology have sat alongside each other informing the theoretical perspective, as each theoretical perspective embodies a certain way of understanding 'what is' (ontology) as well as a certain way of understanding 'what it means to know' (epistemology) (Creswell 2009; Carson, Gilmore, Perry and Gronhaug 2001; Neuman 2000; Crotty 1998; Guba and Lincoln 1994). To better understand the nature of reality and how one knows what we know, it is necessary to understand that reality has been linked to the creation of human intelligence, interacting with the active experience (learning) in a real-world situation constructing one's personal reality.

The researcher is not a scientist so for that reason this study would never have sat comfortably in a quantitative frame. From the researcher's perspective, it is the qualitative narratives, views and descriptions, she believed, would add value and knowledge to this study. It is her belief that the process of listening to the participants' stories, beliefs and ideas, without the need for hypothesis or test, would obtain a rich account of the phenomena being studied.

3.3.2   Methodology

Phenomenology as an approach in the quest for knowledge has become very popular and one the researcher feels has greatly enhanced this research study. The goal of phenomenology is to seek a better understanding of the meaning of the lived experience of the dental nursing graduates. It did not seek to understand their recent experiences but rather look back and reflect on their past PPP events or encounters.   Employing hermeneutic phenomenology aims to listen to the dental nursing graduates, exploring their lived experiences of having completed PPP as part of their academic programme. Hermeneutic phenomenology will be explained later in this chapter.

3.3.3   Paradigm

Denzin and Lincoln (2005) believed it is ones' principles and beliefs that shape and guide how we see and act in the world. This delimited view they termed a paradigm (Denzin and Lincoln 2005, p22). Thus, a research paradigm is a framework which influenced the way knowledge was researched and interpreted, outlining the intent, motivation and expectation for the research (Mertens 2005; Guba 1990; Crotty 1988; Knowles 1971).

The researcher acknowledged that there are different ways of looking at the world in the context of research. These contrasting world views or paradigms (Guba 1990) have been investigated by the researcher and provided a strong foundation for the work undertaken. Denzin and Lincoln (2005) argued that the predominant paradigms underpinning research in recent years have been those of positivism and interpretivism. Positivists believed that the truth was out there, and we discovered it by means of developing hypotheses and engaging in controlled rigorous experiments. They (positivists) suggested that knowledge existed completely separately to us as human beings. We, as researchers, remained independent of and identified objective truths. By way of contrast interpretivists believed there was no one truth, but a succession of truths that are socially embedded and contextually influenced. They (interpretivists) argued that knowledge changed depending on the interaction we have with one another.
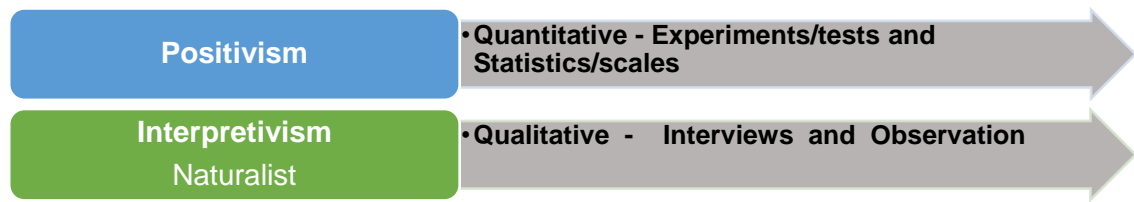
Figure 3.3 - Positivism versus Interpretivism

The researcher looked at the two core paradigmatic positions, namely Positivism and Interpretivism, which she anticipated would enforce her reasoning for believing that positivism was not a suitable paradigm in this instance and why she broadly positioned herself in an interpretivist paradigm.

It is normally argued that a positivist paradigm implied a quantitative approach while an interpretivist paradigm inferred a qualitative approach (Bryman 2004). The following descriptions of these conflicting world views have provided a rationale for the choice of paradigm most suited to this study.

3.3.4   Positivist Paradigm

Positivism is a controlled and structured (scientific) approach to research. Appropriate hypotheses are constructed, and a suitable research methodology is then employed. Positivists believed that there is a single objective reality to any research phenomenon, irrespective of the researcher's conviction or perception (Carson et al 2001; Hudson and Ozanne 1988; Berger et al 1967). Positivists working in social sciences are interested in patterns and trends where they look at society and human behaviour as a whole unit. Remaining detached, they use quantitative methods such as structured questionnaires and statistical data for comparison (Creswell 2009; Carson et al 2001; Guba and Lincoln 1998). The positivist ontology claimed that the world is external, believing that that there is only one reality to any research phenomenon which did not include the researcher's perspective (Hudson and Ozanne 1988). This approach is controlled and structured, detaching from the participants, thus eliminating, reason, feelings and emotions (Hudson and Ozanne 1988).

This approach followed the methods of the natural sciences seeking to observe and recognise collective structures, arrangements and features of society and the individuals who dwell in it. In the context of this study, it would seem to suggest that the researcher would be detached from the graduates, to avoid emotional involvement, while using a balanced and reasonable approach to the research (Carson et al 2001; Crotty 1998).

Embarking on this research with an outlook that favoured positivism would, in the researcher's opinion, be futile as they (positivists) were not looking for an explanation of a single core entity or reality. The researcher is not searching for knowledge discovered by a scientific experiment independent of human beings. The evidence obtained would not need to be precise or exact, but instead seeks to generate and to understand meaning and knowledge which is not fixed or stable. While the researcher is very aware that the merits of positivism may be valuable in physical science, it is her considered opinion that it is fundamentally inadequate for social science where understandings, views and perceptions are the primary focus. Her involvement and relationship with her subjects is not a detached one but includes some bias from her experience and involvement with the dental nursing programme. For this reason, the researcher chose not to adopt a positivist paradigm and instead chose to investigate the suitability of an interpretivist approach for this study.

3.3.5   Interpretivist Paradigm

Arguably the opposite of positivism is Interpretivism; an approach that looked at the history and culture of the society where the researcher and the subjects of that research are interdependent. It suggested that the researcher might have some prior knowledge of the research background but remained open to new knowledge and information obtained from the individuals they were working with (Carson et al 2001; Crotty 1998, p67; Hudson and Ozanne 1988). Interpretivism is part of a broadly-based qualitative research stance. Interpretivists do not generalise or predict patterns and trends of human behaviour. Their objective is to understand and interpret the meanings behind human behaviours. In other words, understanding why people do what they do, and how they interpret and

make sense of their world and reality. Interpretivism illuminated the everyday life of individuals by using methods such as unstructured interviews, narrative and dialogue gaining access and insight into their subjective experiences. Therefore, interpretivists believed that reality is multifaceted, and unpredictable in nature (Black 2006; Carson et al 2001; Schwandt 2001; Neuman 2000; Crotty 1998).

Interpretivism at an ontological level believed that reality is *'multiple, various and relative with socially constructed knowledge'* (Carson et al 2001, p5). For this reason, in the context of this study, it is important for the researcher to listen to the graduates' stories and individual views about their experiences of PPP. Crotty claimed that '*different people construct meaning in different ways, even in relation to the same phenomenon'* (1998, p9).

The researcher argued that this is the situation in this study because, while each graduate had been exposed to a dental practice for the same period of time during the years of study, each graduate may recall different experiences, feelings and views. As a result, becoming more aware that each experience is not just '*discovered, but constructed*' (Crotty 1998, p9), the researcher is interested in capturing this experience, the graduates lived experience, rather than on what is consciously known. It is for that reason that she believes this paradigm is most suited to this research. Furthermore, the interpretive paradigm with phenomenology, which will be explained in more detail later, was used to pursue a connection and discover the constructions and meanings behind the knowledge and the environment (Crotty 1998; Van Manen 1990; Lincoln and Guba 1985).

This importance of perceptions, beliefs and attitudes is not completely alien to positivists as they believe that it is possible to document patterns of relationships between attitude and behaviour or between experience and attitude. In some forms of positivist quantitative research, documentation of attitudes and beliefs are obtained and noted, not through observation, but through the answers received from questionnaires (Lincoln and Guba 1985). Interpretivists argued that one cannot understand why people 'do what they do' without knowing and understanding how people interpret, and make sense of their own world, their

beliefs and attitudes. This research is broadly located within a qualitative research position, working in an interpretivist paradigm, using a variety of data collection methods. The third stage of the Denzin and Lincoln research process is the research strategy which has been outlined below.

3.4   Stage 3: Research Strategy

The third stage of the Denzin and Lincoln (2011) research process is an analysis of research strategies, focusing on the research question and the purpose of the study. They suggested that a research strategy is a vital component because it linked the research strategy which is a set of flexible guidelines with Stage 2 – theoretical paradigms and Stage 4 – methods for collecting data. In addition, a research strategy connected the researcher, the participants and any relevant data available. The strategies in this instance included case study and phenomenology (Denzin and Lincoln 2005, p25).

3.4.1   Case Study

This is an intrinsic case study (Denzin and Lincoln 2005) because, as mentioned, the primary intention of this research is to gain a better understanding of the graduates' personal experience, views and perceptions of PPP. From a methodological perspective, it was decided to use the case study approach in conjunction with inputs from the wider dental community. In summary, this is a case study involving one cohort, a single programme based in an individual institution, in conjunction with participating dentists using a mixed methods approach which aided a means of exploring and understanding individuals within a dynamic environment (Creswell 2007; Streubert and Carpenter 2011).

Case studies are widely used and in this instance the method is considered relevant as it enabled a more in-depth analysis of the views, perceptions and experiences of graduates on PPP. Feagin, Orum, and Sjoberg (1991) defined a case study as *'an in-depth, multifaceted investigation, of a single social phenomenon'* (p2). While Yin (2009) described a case study as *'an empirical*

inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomena and context are not clearly evident' (p18). Wilczynski and McKibbon (2013) were more to the point when they stated that a case study is *'an original study but specifically one study only'* (p43). Whereas Merriam (1998) considered a case study to be *'an intensive, holistic description and analysis of a bounded phenomenon such as a program, an institution, a person, a process, or a social unit'* (p xiii). In this instance, the researcher believed that the definition outlined by Yin (2009) clearly acknowledged that it is the graduates' views, perceptions and experience based within a real-life context, which are the phenomena and for that reason the study is guided by Yin.

Yin (2009) maintained that there are many different reasons for choosing a single case study, including extreme, rare or unusual cases. Currently, research in relation to dental nursing graduates' perceptions of PPP are non-existent. For that reason, the researcher felt a single case study is acceptable at this time. The potential advantage of a single case study provided an opportunity to look deeper into a phenomenon, obtaining a more detailed description and examination of patterns and relationships, thus gaining a better understanding of the reality of a distinct situation (Fiss 2009).

3.4.2   Heidegger and Husserl

Possibly the two names most widely associated with phenomenological research are Husserl and Heidegger. Interestingly, Husserl valued a descriptive phenomenological approach to research, while Heidegger preferred the study of the *'lived experience'* - an interpretative hermeneutic approach (Denzin and Lincoln 2005; Creswell 2009). Heidegger believed that each of us had an individual view, an awareness and understanding with a description for situations that have personal meaning (Levin 1999). In contrast, Husserl believed in bracketing, which suggested that the researcher should be separated from the experience. Heidegger's opinion differed greatly. He maintained that bracketing is not possible, claiming that an investigator should not be separated from the experience because meaning and understanding is created through reflection

and collective human experiences, building on an awareness of ideas, views and understandings (Heidegger 2000; Denzin and Lincoln 2005; Creswell 2009). Heidegger's interest lay in the 'human being' which he referred to as *'Dasein'* translated from German as '*being there'*. He believed that it is impossible to be separated from the world, suggesting that it is our experiences, past, present and future which shape us as human beings.

For this research study the researcher followed Heidegger's approach which sought to understand the graduates' viewpoint (phenomena) with an informative approach to how they viewed the world (Denzin and Lincoln 2005; Creswell 2009). 'R*esearching a phenomenon, requires a researcher to interview a participant who can give a comprehensive description of an experience that they have lived through'* (Giorgi 2009, p122). With that in mind, and notwithstanding the difficulties outlined earlier in this section, it is important to try to answer the question 'what is phenomenology'?

3.4.3. Phenomenology

Phenomenology is complex and arguably may be difficult to come up with an exact definition. While many definitions are available, Tarozzi and Mortari (2010) suggested that there may never be one simple explanation for phenomenology, believing that continuous clarification is essential. They believed that phenomenology is a necessary and powerful tool required for research in the human sciences. Describing phenomenology as a way to '*educate our vision, define our posture and broaden the way we look at the world'* (Tarozzi and Mortari 2010, p10). In 1985, Amedeo Giorgi was of the opinion that '*a consensual, univocal interpretation of phenomenology is hard to find'* (Giorgi 1985, p23-24).

Phenomenological research has been described by Moustakas (1994) *as 'aiming to throw light on and developing an understanding of what an experience means for those involved'* (Moustakas 1994, p26). Van Manen (1990, p9), when speaking about phenomenology, described this method as '*achieving a deeper understanding and meaning of our everyday experiences'* (Vnuk 2013). As a research method, phenomenology, and specifically hermeneutic phenomenology

is recognised as a human science studying individuals (Van Manen 1990, p6), which reflected the interpretative value of this research question (Heidegger 1962). Hermeneutic phenomenology has become very popular and has been applied to education, health and social care research, because it highlighted the importance of understanding the experiences, stories, insights and 'journeys' of the graduates (Todres 2005, p116; Rossman and Rallis 2003; Creswell 2003). It is not just a research method, but a situation, a way of being in the world, so that '*what is*' may emerge, unfold and present itself (Schwandt 1999). In the context of this study the researcher believed that while each graduate's experiences might be different, she will endeavour to interpret, understand and represent the phenomena of their personal accounts, their views of the world and their lived experiences of PPP in a manner that allowed the *'what is'* emerge (Allison and Pomeroy 2000, p93). The details of these experiences, perceptions and understandings of PPP are important for this study because interpretivists believed that knowledge is socially constructed, so for that reason phenomenology is a good fit within the interpretive paradigm.

Finally, the researcher believed that the use of an interpretive, hermeneutic phenomenology approach for this research is relevant and best suited because it sought to investigate the lived experience of the dental nursing graduates, reflecting on their views, perceptions and experiences as students.
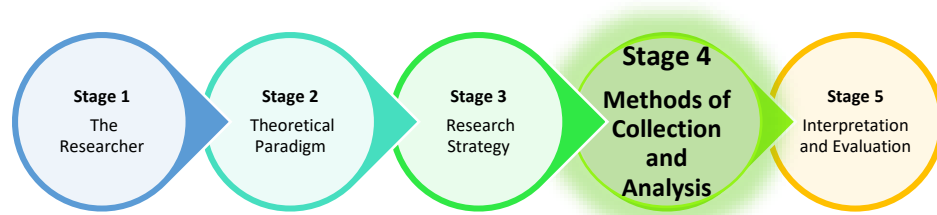
3.5 Stage 4: Methods of Collection and Analysis

Denzin and Lincoln (2005) believed that the interpretative paradigm which is part of a broadly-based qualitative researcher position, must employ a variety of data collection methods (Denzin and Lincoln 2005). These may include interviews, focus groups and observation of module/programme documents, workbooks and records relevant to the research study. Due to the fact that each phase (method of data collection) of research is reviewed, this section is longer and more detailed than the previous stages.

It is the researcher's belief that focusing on one type of data collection method in the context of her study would not give true validity to her research. The researcher saw herself as a phenomenologist, centred within a qualitative research tradition under an interpretivist paradigm, constructing the meaning of the graduates' views, perceptions and experiences. To achieve this, a variety of data collection methods were used forming a triangulation which will be discussed later in this chapter.

As previously mentioned, graduates who had completed a PPP element may have very different views. For this reason, the researcher believed that qualitative research is possibly the most natural sequence as a means of exploring and understanding individuals within an interactive social environment (Streubert and Carpenter 2011; Creswell 2007). However, in order to condense the most suitable questions to qualitative research - where personal views, feelings, perceptions, ideas and experiences are required, it is necessary to develop a method which highlighted the facts, figures and multiple-choice responses ensuring a break-down of the most appropriate and necessary questions. This reasoning is supported by Burton and Bartlett (2005) who suggested that it is necessary for a

researcher to have a clear understanding of why they might choose particular methods. From the researcher's perspective in order to obtain a collection of suitable data an approach comprising of the combination of quantitative and qualitative strands facilitated what is required (Hanson et al 2005). Creswell (2003) is very much in favour of combined methods, suggesting that it led to a better, more enriched understanding of the experiences of respondents – in this case dental nursing graduates, adding value by exploring more deeply into the phenomenon. This combination of methods is known as triangulation.

3.5.1 Triangulation

Triangulation facilitated deeper understanding which involved using multiple data sources in order to produce better examination and consistency from within the same method. Denzin (1978) and Patton (2001) identified four types of triangulation:

1. Methods of Triangulation
- Examination of reliability of findings generated by different data collection methods
- Combination of qualitative and quantitative data

2. Triangulation of Sources
- Examining the consistency of different data sources from within the same method, e.g. different points in time

3. Analyst Triangulation
- Using multiple analyst or observers to review finding
- The goal is not to seek consensus, but to understand multiple ways of seeing the data

4. Theory/Perspective Triangulation
- Using multiple theoretical perspectives to examine and interpret the data

Figure 3.4 - Four Types of Triangulation. Adapted from: Denzin 1978

3.5.2 Methodological Triangulation, Validity, Credibility

Methodological triangulation is adopted for this research study. According to Denzin (1978) and Patton (2001) triangulation of methods examined the reliability

of the findings by combining qualitative and quantitative data. The triangulation of sources examined the consistency of different data sources. The use of multiple examinations in a triangulation format meant that there is a better understanding of multiple ways of seeing data while testing consistency through different approaches. Additionally, it clarified and highlighted results from one method to another, while inspiring and developing new questioning, thus providing a bounty of rich data.

The diagram in Figure 3.5 outlined the method of triangulation which is applied to this research. As has been mentioned, this is broadly a qualitative research position working in an interpretivist paradigm using a combination of qualitative and quantitative data collection methods. The main argument for using a variety of data collection methods is to obtain the best way to find as much information as possible.
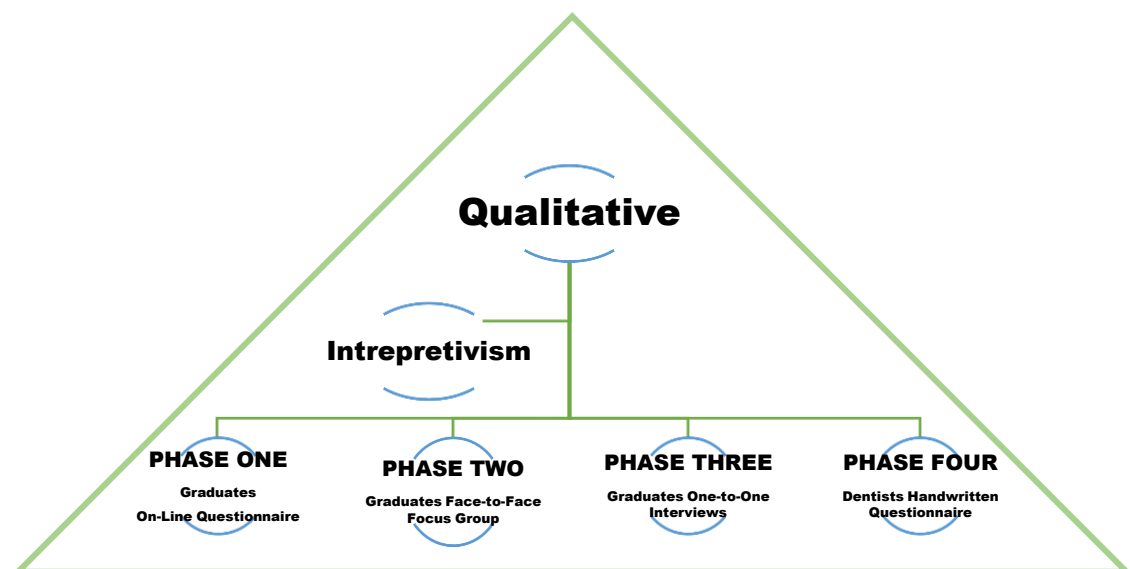
Figure 3.5 - Triangulation Format for this Research

Triangulation enabled one to gain a better understanding of the research question and increased validity and credibility with the possible discovery of a unique component that either approach might not have provided alone (Mertens 2010; Creswell 2007; Newman 2000). This combination of approaches elevated the researcher above the personal bias that may have stemmed from single methodologies and methods of data collection. While it might be assumed that

this method of triangulation concealed a weakness in one or other method, it is in fact making the findings more robust. This process of methodological triangulation sought to provide multiple perspectives on the same phenomenon with a view to developing a more rounded set of data to explain the realities encountered. It was argued that triangulation in this instance provided a holistic view of the phenomenon of PPP (Patton 2001; Denzin 1978).

Denzin and Lincoln (1994) suggested that the use of triangulation for a qualitative study provided a more comprehensive understanding of the research. While it was widely recognised that both qualitative and quantitative methods each had their own place in research, it is anticipated that their combination provided a deeper insight, understanding and knowledge of PPP, strengthening the reliability and validity of the research (Begley 1996; Halcomb and Andrew 2005). In this context the employment of a triangulation approach is intended to explain, obtain richness and discover the complexities of human behaviour within the placement environment (Yeasmin and Rahman 2012; Kennedy, 2009). Denzin and Lincoln (2005) maintained that researchers needed to have a clear understanding of the main ontological and epistemological position of the phenomenon. Once realised, triangulation should be used not as a validation, but as a complementary process of gaining better, deeper and more beneficial knowledge, (Yeasmin and Rahman 2012; Denzin and Lincoln 1994).

The researcher used the expertise of a critical friend to ensure continuity, expertise and support in the collection, evaluation and assessment of data. The protection against unfairness is important to the researcher in addition to increasing the validity of the findings. Costa and Killick (1993) believed that a critical friend *'is a trusted person who asks provocative questions, provides data to be examined through another lens, and offers critique of a person's work as a friend. A critical friend takes the time to fully understand the context of the work presented and the outcomes that the person is working toward. The critical friend is an advocate for the success of that work'* (Costa and Killick 1993, p49).

3.5.3   Participants and Data Collection

The participants selected to undertake this research were graduates who had completed the Dental Nursing Programme at AIT. Dentists were also part of the research but only in a supportive capacity. This selection was known as purposeful sampling (Quinn Patton 2002), because it was these AIT graduates who had lived through the experience of PPP as part of the dental nursing programme. It was they who provided the most insight and understanding of the phenomenon that is PPP. 'The logic and power of purposeful sampling derive from the emphasis on in-depth understanding' (Quinn Patton 2002, p46).
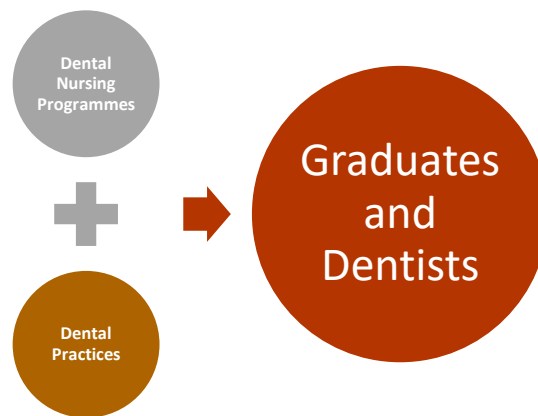
Figure 3.6 - Population and Sampling. Adapted from: Creswell, 2014, p161.

The research undertaken for this study comprised of four phases, as outlined in Figure 3.7. Each phase will be explained in more detail later in this chapter. For now, it is important to explain the different types of data collection used in this research and the reasoning behind them.
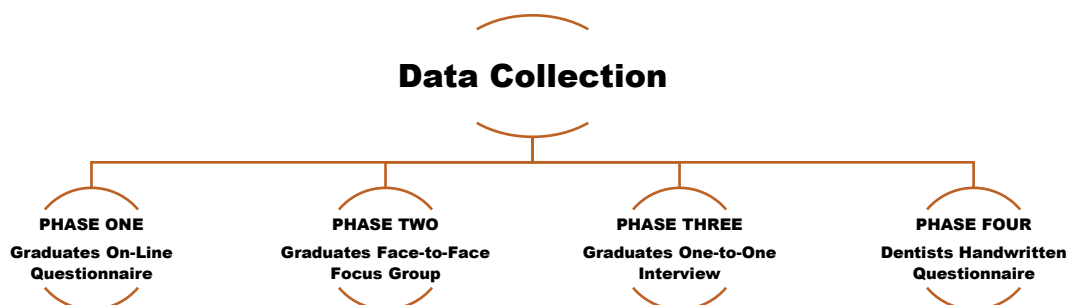
Figure 3.7 - Data Collection Methods

Data for qualitative research is generally obtained through three modes, interviews, observations and documents (Creswell 2009; Patton 2002). The most popular mode has been interviews, where one-to-one interaction ensures a deeper level of communication, especially for researchers who are interested in the *'story'*, the *'lived experience'* or the *'phenomena'*. Interviews are still considered to be the most commonly used method of data collection (Creswell 2009).

As previously mentioned the data collection strategy used a variety of methods (triangulation) working within a qualitative paradigm. The researcher used four different types of data collection:

1. Graduates' on-line questionnaire conducted in non-real-time (asynchronous) via Facebook and email (Janghorban et al 2014).
2. Graduates' face-to-face focus group achieved in real-time (synchronous)
3. Graduates' one-to-one interviews achieved in real-time (synchronous) via mobile, Facetime or Skype.
4. Dentists' hand-written questionnaire were completed by the participant at their convenience during a set period of time.

Individually each data collection method proved to be fruitful. It is envisaged that the process of combining all four produced a richer, deeper fountain of knowledge.

3.5.4   Data Analysis

Denzin and Lincoln (2005) maintained that the data analysis process is about making sense from the vast amounts of empirical material accumulated. The data received from participants was collected and organised into codes, topics and themes, attaching meaning and importance in relation to connections and influences (Patton 2002). It was without doubt a very complex but interesting activity trying to make sense, deduce reasoning, understand description and interpretation (Merriam 2009). Patton (2002) claimed that there was no one way to interpret data. For this study the researcher used an Interpretative

Phenomenological Approach (IPA), an approach which required the participants to give their personal accounts rather than formulating general descriptions. This method was popular with many research areas but possibly most commonly recognised and suited to the area of healthcare research, due to the background of its developer Jonathan Smith, (Smith and Osborn 2008), who developed it specifically for the investigation of personal experiences and social perceptions.

3.5.5   Data Collection

The most important aspect of this research was to ensure that the 'lived experiences' of the participating graduates were heard. Capturing their voice and words was imperative and so greatly influenced the data collection methods. As we have seen, the combination of qualitative and quantitative methods of data collection provided a triangulation effect, which incorporated an on-line questionnaire, face-to-face focus group and one-to-one interview. These have led to an eclectic mix which have encapsulated a rich source of knowledge and information.

3.5.5.1 Phase One: Graduates On-line Questionnaire

Phase One of the research involved an on-line questionnaire (Appendix 6) which was used as an introduction to the research study and obtain a basic profile of the participating graduates. While this questionnaire was predominately quantitative, it did supply qualitative data, where participants if required offered an explanation, suggestion or comment.

The on-line questionnaire was designed, administered and summarised using Survey Monkey via Facebook. The graduates were asked to complete a questionnaire which required them to reflect on their PPP. This phase was initially used to get an idea of the graduates' views and feelings, but subsequently used as a gauge to further develop questions. This method searched for and captured the graduates' understanding of what being a student dental nurse on PPP meant to them (Creswell 2009). While recognising that the on-line questionnaire provided experiences only in a broad sense, it was useful from a

practical perspective in gathering data from those geographically dispersed (Wright 2005).

The questionnaire was distributed using Survey Monkey™, via Facebook to the Dental Nursing graduates of AIT. An initial posting on Facebook (AIT Dental Nursing Facebook) included an outline and purpose of the research study, the time required to complete questionnaire and the PLS. The researcher was aware of the importance, of obtaining the maximum response rate because, Polit and Hungler (1999) believe that the wider the sample, the better and more appropriate the representation would be.

The researcher thought this phase would be less challenging in targeting participants. Only thirty-seven graduates (n-37) from a bank of approximately 100 graduates completed the questionnaire. The response rate was anticipated to be higher and this was a bit disappointing. However it was at this stage, that the researcher was reminded of Mason cited in Baker and Edwards (2012) that a researcher should *'consider whether a greater or fewer number of interviews would produce the desired outcome'* (p5) Mason claimed that *'more should not always be seen as better'* (p5) Questionnaires are the best tool to target this cohort of participants (Hartshorne 2011), not just because of their age and profile, but because it gave them an introduction to the research study and an idea of what was expected should they agree to progress to Phase Two.

The graduates who decided to click on the *'survey link'* attached to the PLS indicated their consent to participate in the on-line questionnaire. Once completed, the participants were given the option to continue through to Phase Two (focus groups) and/or Phase Three (interviews), if desired. If they agreed, they provided contact details, indicating consent to partake in the focus groups and/or interviews.

Data from the on-line questionnaire was collected and analysed, highlighting the need for further exploration, in the form of a series of semi-structured questions for the focus group and interviews (Streubert and Carpenter 2011; Braun and Clarke 2013). While the main emphasis of this research was primarily on the

qualitative data obtained, the quantitative data allowed the researcher to gain a better understanding of the questions needed to delve deeper into the world of dental nursing.

The on-line questionnaire was required to be completed within a specific time period. This allowed the participants the flexibility of completing it at a time convenience to them. Emotions and feelings may not be evident with on-line questionnaires, but the wide geographical access proved to be beneficial when locating graduates who worked in Australia and other countries.

3.5.5.2 Phase Two: Graduates Face-to-Face Focus Group

A focus group is described as an informal discussion among a group of selected individuals that were asked to focus on a particular topic (Stewart, Shamdasani and Rook 2007). It is a form of group interview with participants who had a similar background. Quinn Parron (2002) stated that the aim of a focus group was to get '*high-quality data in a social context where people can consider their own views in the context of the views of others'* (p385). Participants in a focus group benefited from interactive communication, probing and listening to each other's point of view. It facilitated the maintaining, changing or acknowledging of different understandings while generating data that included a wide variety of participants' opinions, perceptions, experiences and attitudes (Bryman 2012). For this study, it is an appropriate and comprehensive method of collecting data from a number of graduates (Sullivan 2013).

In this instance, the fact that AIT dental nursing graduates were spread throughout Ireland, made it difficult for them to travel and take part in a focus group. While small compensation was available, it unfortunately didn't warrant a graduate driving from Donegal or Cork for a session in Athlone, which would probably be completed in less than two hours.

The focus group was the second phase of this research. It consisted of nine (n-9) qualified dental nurses who were completing the AIT DN level 7 having graduated previously from AIT H.C. in Dental Nursing. There was no set number

of participants required for a focus group, although Bryman (2012) suggested a focus group should contain at least four participants, while Richie and Lewis (2003) advised that there should be between four and ten. This group developed because they were on-site in AIT, had completed phase one and were interested in progressing to phase two. For this phase the graduates were again reminded of the PLS advising that when they provided their contact details they were consenting to taking part in the focus group and that they had the right to withdraw from the process at any time.

The researcher was conscious of ensuring the focus group was informal, so graduates could sit where and how they liked, although an attempt was made to keep them as close as possible to the laptop which was recording the conversations. They were also permitted to have food and/or drinks (tea, coffee, soft drinks) with them during the interview. The researcher wanted the focus group to feel like it was a chat, rather than an interview and for this reason a series of topics were compiled as prompts to the researcher, rather than using a selection of questions. For convenience, the focus group was conducted in a classroom on-site in AIT, deemed to be the most familiar and secure for the graduates and best suited for recording. The unstructured questioning led to some rambling as graduates jumped from one topic to another. However, this ensured a casual approach and did not prohibit the flow and value of the conversation as it moved in different directions at the discretion of the participants.

Not all participating graduates answered every question; some were very talkative, while others not so much. Some graduates were asked direct questions to get them involved while others volunteered. The focus group conversation was recorded on a laptop recorder and later transcribed. The recurring themes were identified following analysis (Biggerstaff and Thompson 2008). The researcher made brief notes of any thoughts, observations and reflections that occurred while reading the transcript in the reflective research diary (Appendix 7). Transcribing by the researcher was extremely time consuming. However, the researcher felt it was of benefit in facilitating her remembering each interview. The transcription also included additional data such as general day-to-day

information regarding family, friends, mis hearings and mistakes. When using focus groups, it was anticipated that the graduates would interact and talk to one another, ask questions, exchange stories, experiences and viewpoints, and then comment on same. This method of communication was beneficial for the researcher when exploring the participants' knowledge, experiences and ideas, highlighting how they thought, what they were thinking of and why they were thinking in a certain way (Kitzinger 1994). It was acknowledged, that focus groups were able to reach and reveal aspects of understanding that other methods may be unable to do (Kitzinger 1994).

The focus group may for some be a source of comfort, knowing that they were not alone in answering questions while others may have found the process to be intimidating, resulting in them being fearful of saying the wrong thing. Wengraf (2001) suggested that face-to-face focus group interviewing requires the researcher to '*listen to the participant, understanding what is said and at the same time ensuring that questions are understood and answered at the level and detail intended within a fixed time-period*' (p194). If group dynamics were good, then information obtained could be very beneficial, whereas data sourced through individual collections might not be as valuable. Support between the participants may have been evident and therefore the graduates might not have felt alone in their perceptions or insights.

As mentioned the benefit of the face-to-face focus group was to gain insight into the experiences, ideas and perceptions of a lived experience which may be more difficult to obtain through other data collection methods. Additionally, this method has allowed the researcher to have control over the elimination of distractions, in conjunction, with the capturing of the emotions and feelings expressed as they answered a question spontaneously, without an extended reflection (Opdenakker 2006). However, awareness was key for the researcher, with an ability to move through questions an advantage, as this method was inclined to facilitate bias or unfairness if discussions were dominated by a few participants.

3.5.5.3 Phase Three: Graduates One-to-One Interview

Progressing on from Phase One and Two led to Phase Three of this research, which was the conducting of semi-structured interviews. The aim of the interview was to get the graduates to talk about their experiences, perceptions and views on PPP and to ask whether on reflection it prepared them for employment. In this instance, semi- structured interviews allowed specific questions to be asked, while providing flexibility in conversation (Braun and Clarke 2013; Robson 2002). The one-to-one interview according to Van Manen (1990) provided the researcher with an opportunity to obtain better insights and greater understanding from the graduates' perspective. The fifteen (n-15) graduates who completed this section confirmed their willingness (as previously mentioned) to take part in an interview. Arrangements were made to contact each participant directly via email, arranging a suitable day and time to participate in the interview, which was conducted via a mobile communication device of their choosing (Denzin and Lincoln 2005). The interviews were at times difficult to organise because finding a time that suited both the participant and the researcher was problematic, due to time differences, family commitments and other issues. Preparations were eventually made and while this process was slower than anticipated, the researcher was very aware that it would have been much more difficult, time consuming and expensive to interview the participants face-to-face (Mann and Stewart 2000).

Like the previous phases the participants were reminded of the PLS and while involvement was voluntary, they too, were offered the opportunity to opt out at any stage.

The one-to-one interviews were mostly conducted by mobile phone. FaceTime and Skype were used by two graduates. On both occasions the connections were disrupted, lack of voice and/or viewing were sporadically failed. During the conversations, like the focus group, ramblings occurred on occasion, which were necessary for the participants to feel at ease. Some questions overlapped others, while some were not relevant for this research, but the reason not to eliminate them was to ensure the graduates, as in the previous phase, felt the conversation

was a chat rather than a question and answer session, where they felt obliged to give the correct answers. The researcher worried if this format was incorrect, because the consistency of the questions was not standard to all participants and a lot of time was possibly wasted with chit chat. However, the researcher acknowledged that because of chit chat, the graduates seemed to be relaxed and were in no rush to conclude the conversations. This was evident from the recordings, where the researcher on each occasion, instigated the conclusion of the conversation.

The interview method was chosen because it is the most common tool used in qualitative research in the area of social sciences. Interviews have been described as structured, semi-structured and unstructured (Bryman 2012). Structured interviews/questionnaires are most commonly associated with quantitative research, constructed to ask questions in a particular sequence where limited responses were required such as tick boxes, yes/no answers and short comments or statements (Bryman 2012; Mason 2002; Patton 2002). The semi-structured and unstructured approaches were best suited to qualitative research where dialogue was created between one-to-one, or, one to many participants (Mason 2002; Patton 2002). In this instance, it was the responsibility of the researcher to guide the interview so as to produce meaning and understanding in the construction of knowledge (Edwards and Holland 2013; Mason 2002).

Creswell (2007) suggested that interviews should be the main source of collecting information for a phenomenological study. He claimed that interviews as a method allowed the participants an opportunity to describe their views, feelings and experiences in relation to the phenomenon (Creswell 2007). Van Manen (1997) was of the same mind, claiming that for a phenomenological study to work, the interviewing of participants was vital as they reflected on their experiences. He stated that it was the researcher's interpretation of the participants' experiences that produced the phenomenological portrait (Van Manen 1997).

One-to-one interviews are a fast and cheap method of interviewing a large number of participants. This is a common method used to gain insight and

understanding into a particular subject area and allows the participants to describe in their own words their story of experiences, ideas and perceptions. The use of mobile communication devices, as previously mentioned, proved to be an advantage to those at long distance, at a time convenient to both participant and researcher; but a disadvantage in that all three formats could have been interrupted because of bad signal, background interruptions and noise. This method unfortunately, did not allow for the reading of body language. Bailo (2013) suggested that the *'ultimate goal is to make the interview as real as possible'* (Bailo 2013, p22). He proposed that Skype or Facetime interviews were two dimensional – sound and sight, the phone was only one dimensional - sound, while the face-to-face interview had three dimensions – sight, sound and feeling (Bailo 2013). It was these three dimensions Bailo (2013) noted, that we needed to ensure that the experience was as close as possible to face-to-face interviews.

3.5.5.4 Phase Four: Dentists Hand Written Questionnaire

While all the participating graduates had completed their interviews via on-line, face-to-face or one-to-one, the participating dentists were asked to complete a hand-written questionnaire. The data obtained would support the findings from the graduates who were the main focus of this research (Appendix 8).

The twenty-two (n-22) dentists' handwritten questionnaire was distributed and collected by the current cohort of DN students of AIT completing PPP in private dental practices. These students were not part of this research study, but instead acted as couriers in the distribution and collection of the questionnaire. This method of completing questionnaire by hand was familiar to the dentists. The look and layout of the questionnaire were in a recognisable, clear format, which according to Cohen et al (2007) was very important. Secondly, handwritten questionnaires allowed the dentists to engage when it was convenient for them, permitting longer and more in-depth answers if required. The researcher was aware that the dentists' questionnaire could also have been delivered and completed on-line, but the long-established familiarity of the handwritten questionnaire proved to work in previous circumstances. Time constraints and work load issues had previously restricted the researcher from obtaining

necessary feedback from the dentists in relation to PPP. The purpose of including the dentists as a secondary source in the research was to get an overall holistic view of the experience of PPP. The researcher felt the inclusion of the dentists in this study was relevant, necessary and timely as feedback received from them can ensure that the AIT Dental Nursing Programmes are to the forefront when it comes to producing high calibre dental nursing graduates. While the data gathered from them might be from a different perspective it was thought to provide a validation of agreement or conflict which might arise in some areas of questioning. Therefore, the consultation and integration of multiple perspectives it was though would show evidence of widely informed and relevant data which could be crucial to a better understanding the PPP phenomena.

Additionally, it may highlight potential issues, or shortcoming which could be dealt with in a timely manner, an opportunity to gain information from different perspectives can be rare, so it was important to utilise the opportunity to the best advantage. The dentists were provided with the PLS and advised that they were not obliged to complete the questionnaire.

3.5.6   Analysis

Data analysis was the process of bringing order, structure and meaning to the data collected, and while time consuming and difficult at times, it was a fascinating process making sense of and interpreting the data obtained (Schwandt, 2007, 2001; Marshall and Rossman 1999).

Phase One

The questionnaire constructed by Survey Money where questions were designed with a tick box format and comment box allowed the participants the flexibility to just tick a box or elaborate further with their answer. Survey Monkey had the facility to provide graphs which highlighted trends and frequencies, while the additional comments and answers were inputted into Excel. Colour coding segregated the topics and themes (Appendix 9).

Phase Two

The recorded focus group interview was transcribed verbatim by the researcher (Appendix 10). This method allowed the researcher to remember and reflect on the focus group and the questions and answers obtained. Specialised software such as Nvivo was not used. Once the transcribing was completed, the researcher re-listened to the recording while following the typed transcript. It was during this time that coding commenced, by inserting words/phrases and sentences into an Excel spreadsheet. These words/phrases were colour coded for clarity (Van Manen 1997), combined in one Excel spreadsheet. Once the final participant details were inserted, the Excel spreadsheet was read through and compared with the transcript. As a reassurance, the researcher listened again to the recording, as recommended by Pietkievicz and Smith (2012). Checking and double/treble checking added to the work load for the researcher. It did however, provide a valuable aid in remembering and picturing the location, the participants and the feeling and mood of the day.

Phase Three

This phase was dealt with in a similar manner to the focus group where the interviews were recorded and then transcribed. As with the previous phases, the recordings were listened to twice, then the conversations were transcribed. The researcher listened to the recording again, this time while reviewing the transcription and notes of comments and reflections, made at the time of interview. Colour coding commenced which led to topics and developed into themes (Appendix 11). However not all topics stayed under the original heading because as topics emerged, some themes formed and were identified but may have changed as new topics arose (Pietkiewicz and Smith 2012).

Phase Four

This phase was treated in a similar manner to the graduate's phases (Appendix 12). The questionnaire returned by the participating dentists were in a hand-written format. Each question required an explanation and not just a tick box. The

questionnaires received were read three times, to ensure understanding and clarification of handwritings. The answers to each question were then inputted to an Excel spreadsheet, where codes were highlighted in colour, topics were extracted, and themes formed.

3.5.7   Reflective Research Diary

The researcher felt it was important to take an account of thoughts and feelings as they occurred. For this reason, the completion of a reflective research diary (Appendix 7) was used (Engin 2011). While the method of detailing in a diary happened organically and without pre-planning, it did represent the researcher's personal reflections at varying stages of the research process very well. Vygotsky 1986 suggested that reflection on one's own thought processes, not only encouraged critical thinking, but created deeper more meaningful knowledge. The diary was not used as a data collection method. However, the articulation of thoughts through written word provided connections, credibility, guidance and a better understanding of the data obtained, thereby supporting the triangulation effect (Engin 2011).

3.5.8   Critique of the Data Collection Methods

Each of the data methods used had both positive and negative aspects and these were addressed. Broadly speaking the methods used were divided into those that sought data, through interpersonal communications – focus groups and interviews, and those that sought data from the completion of questionnaires both paper based and online.

In a general sense, the researcher believed there was no one right method for collecting data in a study such as this. She recognised that each of the data collection methods had advantages and disadvantages and that the combination of each led to a richer knowledge base.

3.5.9   Communication Programmes and Technology

The use of communication programmes to make contact with the participants incorporated both hearing and seeing, using everyday items such as a computer and or smart phone (Sullivan 2013). The growth of technology in general, but more specifically communication technology, over the last 50 years has been extensive. This combined with the number of research method options available, has given researchers a greater scope and more opportunities in the collection of data in social research (Sullivan 2013).

The development of novel technologies and new approaches to data collection has suggested that there are many ways of collecting data incorporating interviews (Hooley, Wellens and Marriott 2012). Communication programmes such as those previously mentioned have been very beneficial methods or tools in conducting research. Direct consultation with a participant (face-to-face) may not have always been possible in some instances due to travel or cost issues (Hooley et al 2012). The ever-increasing development in technology over the last number of years suggests that the above restrictions may well be eliminated or at least reduced. The growth and development of the internet has meant that the problems encountered or associated with face-to-face interviews such as time, financial, geographical and physical issues (Janghorban et al 2014) have been reduced or eliminated.

Initially communication devices such as Skype and FaceTime were used for personal and family communication. These are free communication services, which allowed the user/researcher to see and speak to people via computer or phone (Janghorban et al 2014). Skype and FaceTime may have a very important role to play in the research process especially where those who have been excluded from the study due to geographical and other everyday constraints, had the chance to participate and contribute (Saumure and Given 2009). Similarly, the opportunities and benefits do not just extend to the participant but also the researcher. The application was free, easy to install and is user-friendly, with an added bonus of being geographically flexible. An instant messaging function combined with recording facilities of both visual and audio interactions make

these communication tools convenient for use (Hanna 2012; Saumure and Given 2009).

3.5.10   Technology Limitations

Unfortunately, technical hitches did happen and there were some limitations to the use of technology. Skype and FaceTime are very reliant on good internet connection. If internet connection was slow or failing, interviews became disconnected or stilted in their flow and data was lost. There was a vital need for current, operational and effective equipment, combined with the basic knowledge of their uses (Hanna 2012). All this combined with the fact that one-to-one interview through a mobile communication device may not be as personal or authentic as face-to-face in the same room and the participant may not have given a true or authentic account of what happened. In addition, Sullivan (2013) reminded us that while this method of data collection, namely on-line interviews, was relatively new, it should not be dismissed as ineffective. She went on to suggest that regardless of whether we interviewed face-to-face, in one location or via a communication technology device, we, as researchers can never be truly sure if what the participant was presenting was genuine or not (Sullivan 2013).

However, in this instance, the researcher believed that the benefits greatly outweigh the constraints; on-line interviews certainly aid accessibility, which might adversely affect onsite interviews (Janghorban et al 2014). Ellison et al (2006), refuted this notion, claiming that a participant who partook on a Skype or FaceTime interview were face-to-face and may well present an unauthentic self during an on-line interview as they might do if they were in the same room. Nonetheless, because the face-to-face on-line interview was virtual in nature, the participant may in fact be better able to express themselves than they had been face-to-face in the same room with an interviewer (Ellison et al 2006, p418). Hamman (2004) concurred with the fact that the internet could potentially be the place where a participant was more relaxed and better able to give a more accurate account of their experiences as a result (Sullivan 2013).

Communication programmes, such as Skype and FaceTime, are now readily available to conduct qualitative research, such as one-to-one interviews or small focus groups via conference calls. It is now much easier, more convenient and possibly cheaper to communicate with or interview people over a distance, than it might have been in the one location. Communication in real-time has improved immensely. It has meant that we can not only speak to and hear the other person but also see them wherever they might be in the world, all with the use of a computer or smart phone, making interviews easier and more enlightening (Sullivan 2013; Morgan 1997).
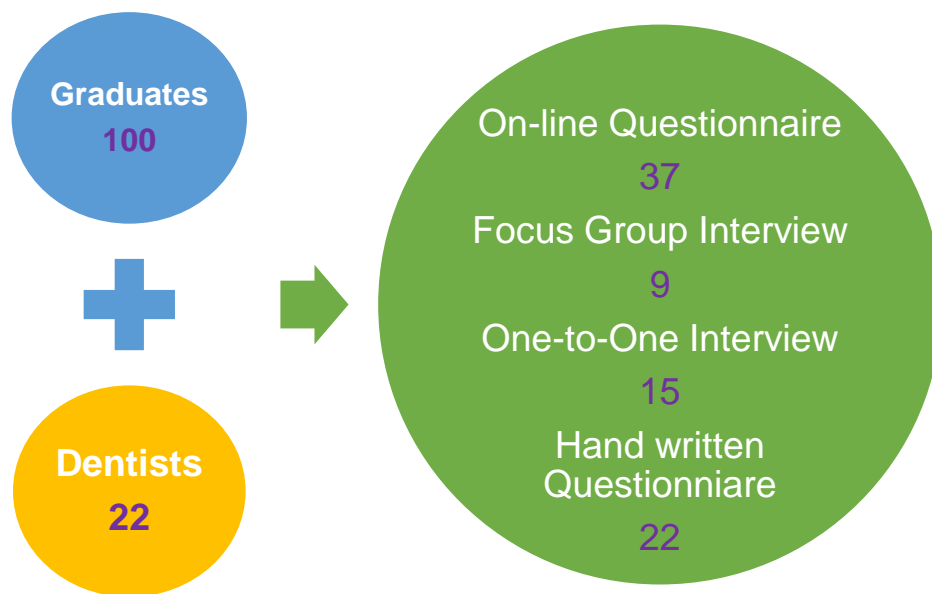
Figure 3.8 - Overview of the Participants' and Data Collection Methods

3.5.11   Recording and Transcription

In qualitative research, the interview was always recorded with the permission of the participants. The recorded interview allowed for the examination and recall of what was said during the interviews by the researcher and the critical friend, proving to be more accurate than note taking. Recording was achieved by mobile phone, computer or digital recording devices. These interviews were transcribed at a later date. While the transcribing was very time consuming, (Bryman 2001) it reminded the researcher of the answers given and the tone and mood of the participants at the time.

The focus group and interviews were recorded using a digital recorder and transcribed verbatim. The critical friend, when possible, was involved in the interviewing, transcribing and the analyses. Storage of data obtained was held in the strictest of confidence. They were doubly password protected on the researcher's work personal computer located in her office. The researcher was the only person that had access to the passwords. Graduates could view their own transcript and given the opportunity to correct any perceived errors. All transcripts were stored securely for 4 years, after that time, they are shredded, and the audio deleted. Lincoln and Guba (1985), while very informative, advised that in some circumstances it may be difficult to achieve authentic research. With that in mind it was important for the researcher to be open to different ontological and epistemological positions and therefore adopting methodologies and methods of data collection and analysis that provided an enhanced view and a deep understanding of the participants involved. The final stage involved the interpretation and evaluation of all data collected.

Stage 1 — The Researcher → Stage 2 — Theoretical Paradigm → Stage 3 — Research Strategy → Stage 4 — Methods of Collection and Analysis → Stage 5 — Interpretation and Evaluation
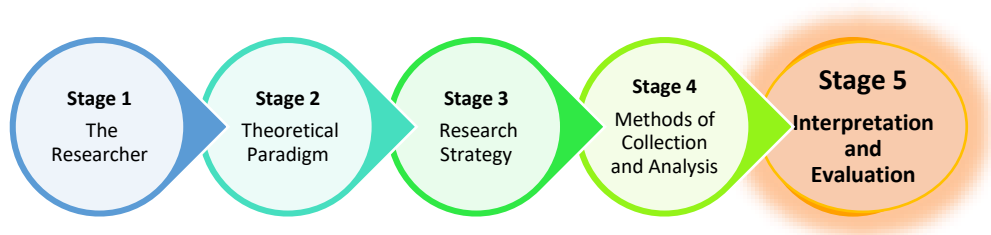
3.6   Stage 5: Interpretation and Evaluation

The interpretation of data began with the on-line questionnaire which was distributed by Survey Monkey via Facebook and while analysis could have been performed by Survey Monkey, the researcher decided to use practical analysis with the help of Excel. The same process was initiated for the hand-written questionnaire from dentists.

3.6.1 Including the Dentists

The researcher felt the inclusion of the dentists in this study was relevant, necessary and timely and while they were not the main focus, it was felt the feedback received from them could be apt and relevant. It also gave the researcher the opportunity to gain comments or suggestions so that the AIT Dental Nursing programmes are to the forefront when it comes to producing high calibre dental nursing graduates. The dentists in this instance were used to conversing with the researcher their ideas, suggestions and comments in relation to work placement skills. These comments are always constructive and supportive and are required for the development of the programmes and teaching skills. The dentists in this study were used to completing hand-written questionnaires and so for that reason the same format was used.

3.6.2   Interpretation of Data

Interpretation of data for the interviews commenced with transcribing the interviews of the one-to-one and focus group participants. Each interview was transcribed verbatim, which included pauses, metaphors and slang words into a Word document. A practical approach was used, and while this method was time

consuming, the researcher felt it was important to remind herself of each interview while at the same time trying to make sense of the participants' descriptions, understandings and stories from their point of view (Van Manen 1997). Themes were highlighted using colour coding and note taking on both the Excel and Word printouts. The transcripts were read and re-read, highlighting and coding with word representations (Van Manen 1997) and searching for relevant words or phrases associated with the phenomena being researched.

The main consideration of this study was to report in a fair, honest and ethical manner the lived experience of the dental nursing graduates. Establishing a true representation of their experiences, ideas and perceptions of PPP required the findings to be supported by responses from the graduates involved in this study in addition to graphical representation from quantitative results.

As mentioned, the data obtained was in its raw state, presented as recorded which included slang, misspelling and grammar issues. This was in accordance with the Interpretative Phenomenological Approach (IPA), a distinctive approach using self-reflection to explore in detail the views, perceptions and experiences of the participants. Associated with an interpretative and hermeneutic tradition (Biggerstaff and Thompson 2008), this approach required the participants involved in the research to give their in-depth personal account: thoughts, insights and experiences, rather than formulating general descriptions. In addition, the researcher is required to be able to reflect, interpret and analyse those responses (Brocki, and Wearden 2006).

3.6.3   Interpretative Phenomenological Approach (IPA)

The aim of interpretative phenomenological analysis (IPA) is to discover how participants in a study make sense of their personal and social lived experiences. The method of analysis approved by IPA is a cyclical process where the researcher proceeded through four stages:

Stage 1: first reading of transcribed text

Stage 2: preliminary codes leading to topics identified

Stage 3: grouping topics together to form themes

Stage 4: arranging themes in a summary Table (Smith Osborn 2008).
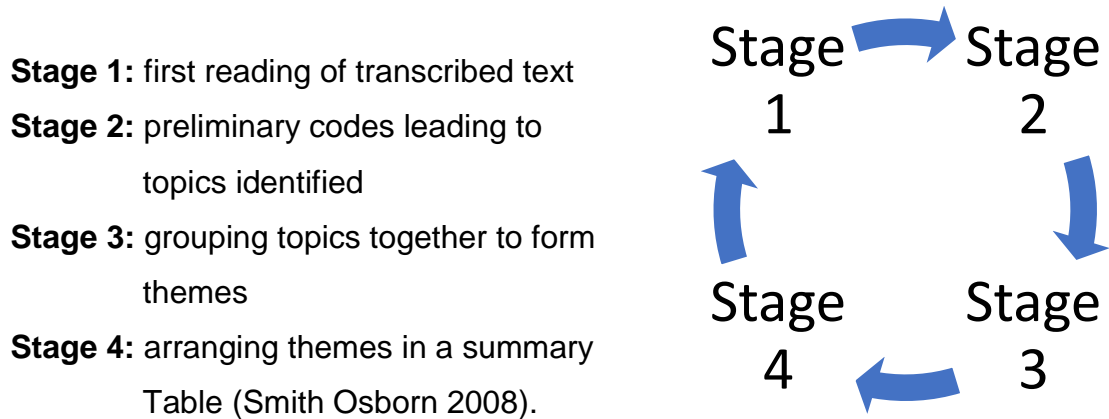
Figure 3.9 - Heidegger Hermeneutic Circle.
Adapted from Biggerstaff and Thompson 2008.

Heidegger employed the hermeneutic circle, when an understanding and interpretation of a phenomenon was required through shared knowledge and experiences. IPA was further developed by Jonathan Smith (Smith and Osborn 2008) and has two main aims for this particular research:

- to look in detail at the participants making sense of their work placement experience
- to give detailed understanding of their reflections on this experience (Smith Flower and Larkin 2009)

As previously mentioned a pilot study was used as a gauge when deciding on the best method of data collection. At that time, the students complained, not about the questions, but about the fact that they had to hand write the answers (Trubek 2016). The researcher was made aware that in order to get the graduates to participate she would need to ensure the mode of questioning was suitable for their needs. This led to the layout and design of the following phases:

Phase One -   (n-37)   On-line questionnaire

Phase Two -   (n-09)   Focus Group

Phase Three -   (n-15)   One-to-one Questionnaire

Phase Four -   (n-22)   Hand Written Questionnaire

Comments received from each Phase was recorded in an Excel spreadsheet identified by its phase and cell number. The following Themes emerged from the DN graduates regarding their views perceptions and insights of their experiences of professional practice placement (PPP);

THEME ONE: Readiness and Internal Challenges

THEME TWO: Benefits

THEME THREE: Personal Characteristics

THEME FOUR: External Challenges
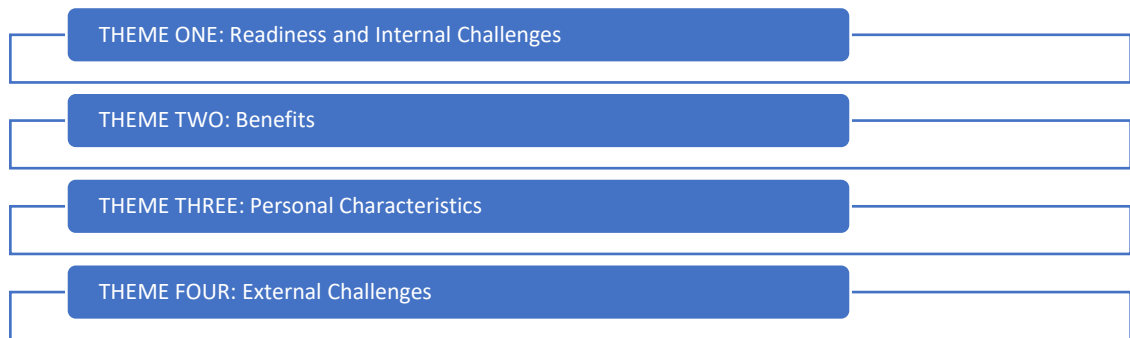
Figure 3.10 – Themes

3.7   Conclusion

The appropriate methodology for this research study, was of huge importance when it came to the reported lived experience of the dental nursing graduates' stories, ideas and perceptions. This chapter has examined the methodology, methods and data collection. The structure, organisation and presentation of this chapter follows the guidance of Denzin and Lincoln (2005, p23) five stages of research: capturing the researcher, theoretical paradigm, research strategy, methods of collection and analysis and finally interpretative and evaluation. This chapter elaborated on the participants, data collection methods, and data analysis. Furthermore, this study is primarily a qualitative study that incorporated some quantitative data collection. This provided triangulation, which it was anticipated would increase the reliability, credibility and validity of the research.

CHAPTER 4:   Findings

4.1   Introduction

The aim of this chapter is to present the findings from both the quantitative and qualitative research undertaken. The literature reviewed in Chapter 2 provided a valuable impression of key concepts or themes relevant to this research study. The findings are, where possible, linked and supported by the literature review. As mentioned previously, four phases of research were carried out: an online survey with DN graduates (Phase 1), a focus group with DN graduates (Phase 2), semi-structured interviews with DN graduates (Phase 3), and a hand-written survey completed by dentists (Phase 4). The focus of this chapter is to give an account of the views, perceptions and experiences of the dental nursing graduates undertaking PPP, their ideas, understanding and stories, highlighting both the predicted and unforeseen themes which emerged from the data.

The data was analysed using the Interpretive Phenomenology Approach (IPA) process as mentioned in Chapter 3. According to this approach, the researcher portrayed the world of PPP as experienced by the dental nursing graduates. The transcripts were read and re-read, highlighting a word, phrase or sentence (code) and put together to form a topic. Similar topics were arranged together, some of which were later combined while others were examined individually. Once the topics were categorised, they formed themes which were named in accordance to the predominant element (theme) that formed interrelationships throughout the findings. As the process evolved, topics and themes were combined to provide a more comprehensive model.
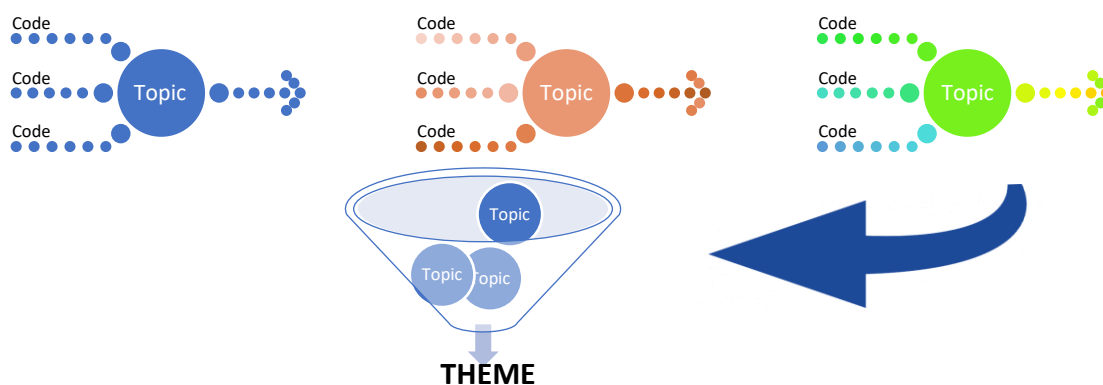
Figure 4.1 Categorisation of Themes

Many areas of interest emerged from the analysis, the findings of which were organised around the following four broad themes (see table 4.1 below).

Table 4.1   Themes and Topics

Themes	Topics
1. **Readiness and Internal Challenges**	o Stress o Competence o Graduates' Overall Experience o Value of PPP
2. **Benefits**	o Personal Benefits o Learning o On-Site Training and Classroom Knowledge o Professional Preparation o Development of Skills o Confidence o Communication o Employment o Supports
3. **Personal Characteristics**	o Personal Educational History o Care Giving/Caring for People o Personality o Attitude o Attributes
4. **External Challenges**	o People o Transportation o Finance o Finding a Suitable Placement

The comments received from the graduates and dentists from both the qualitative and quantitative data were compiled in Microsoft Excel. Each comment is identified by a code containing the phase e.g. (P1, P2) and cell number e.g. (A1, C4).

The profile of the participating graduates was previously outlined in Chapter 1. In total 24 DN graduates were interviewed; 37 DN graduates took part in the survey and 22 dentists completed the hand-written questionnaire.

The format of this chapter is as follows. Findings are based on emerging themes which were explained in relation to their origin, by means of an introduction between the data generated and topic headings. Conclusions were drawn from the areas explored.

Theme One:	Topics:
Readiness and Internal Challenges	o **Stress** o **Competence** o **Graduates' Overall Experience** o **Value of PPP**

4.2 Theme One: Introduction

This theme broadly addressed the readiness of the students to engage with their placement experience prior to PPP. It encompassed the reflections of the graduates' internal challenges which emerged from both the qualitative and quantitative data collected. The quantitative data clearly showed that the graduates' internal challenges related to stress, worry and anxiety. From a total of thirty-seven participants, the majority of the participants, 59% (twenty-two), mentioned that they were worried, fearful and anxious, while 41% (fifteen) claimed they had no worries or fears at all. Their internal challenges, stemmed from issues such as finding PPP, the novelty and trials of working with dentists and other practice staff, a perception of a lack of knowledge, a concern about making mistakes, and confidence in their professional ability to do the job of a dental nurse. The topics highlighted in this 'Readiness and Internal Challenges' theme made an impact on the graduates. The topic Stress encompassed the areas or worry, fear, nerves and anxiety, and because of these feelings, graduates questioned their ability and Competence to do the job of a dental nurse. However, in hindsight, the graduates' expression of the Overall Experience is much more positive than anticipated, prompting the question of the Value of PPP within an academic programme.

At this point it is worth noting that the H.C. in Science (Dental Nursing) comprised of a two year programme with PPP as an element of each year. When graduates reflected, it is assumed that their views, experiences and perceptions of their story as trainee dental nurses are inclusive of both years, unless otherwise stated by them.

4.2.1 Stress

The stress encountered by graduates was identified in the data by terms such as worry, fear, nerves and anxiety which they linked to their perceived readiness to undertake the role of a dental nurse. It emerged as a significant factor in the findings from the graduates who were interviewed or who took part in the focus group. In addition, the quantitative data reflected this. When asked if they were worried, nervous or anxious prior to their PPP experience, 59% (22) indicated that they were, while 41% (15) stated that they had no concerns.
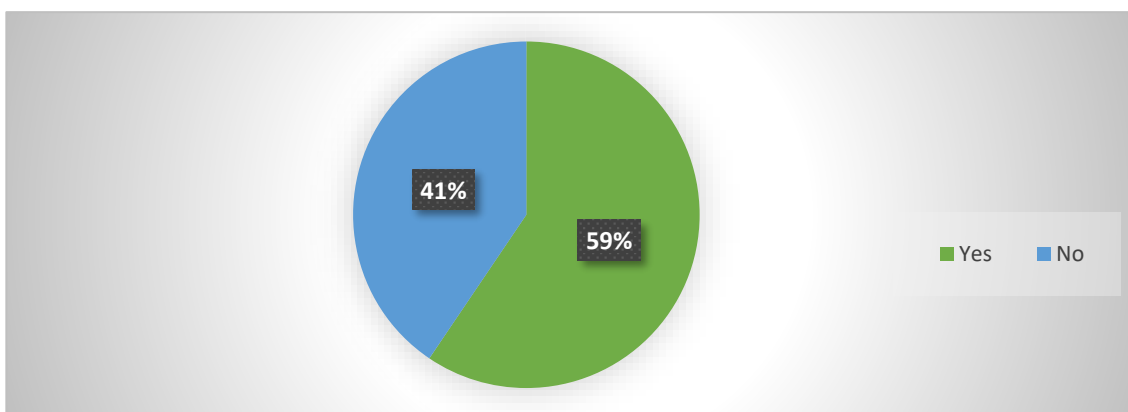
Figure 4.2 – The Degree of Worries, Concerns or Fears regarding the Work Placement Element

A range of issues emerged in relation to anticipatory readiness. The graduates upon reflection recognised that internal challenges such as anxiety, fear and worry were common feelings to have when it came to a new experience. They spoke about anticipation, fear and worry as they reflected on their emotional, physical and practical readiness for PPP, summarising these in one word comments such as:

"Apprehensive" (P3:M4).

"Vulnerable. Daunting. Too afraid" (P3:G4).

Some graduates emphasised this fact and agreed that starting something new naturally led to internal challenges and anticipatory stresses such as anxiety and worry:

"No fears just butterflies, which anyone could get starting something new" (P1:V4).

"Nervous and afraid to make mistakes" (P3:C4).

"I didn't know the instruments well enough before placement" (P1:Y4).

The literature review highlighted a report from Gelman, (2011) her report stated '*that students by their very definition will lack knowledge, skills and abilities'* (Gelman 2011, p307). Some of the respondents indicated that they were worried about their professional ability and meeting new people:

"Yes, I was worried about how much work the dentist would actually want me to do. I was worried about suctioning and mixing as I got limited amount of practice. I was worried about meeting new people and how I would get on with everyone" (P1: D4).

While acknowledging their apprehension and nervousness, the respondents also emphasised the normality of such anxieties stating that:

"Obviously you are nervous at the beginning like starting anything new, but I was looking forward to the point where you are settled in" (P1:W4).

Again, the graduates anticipated the stress but knew that once they had settled in, this would dissipate.

The issue of the stress associated with being part of a busy working practice arose a few times, with one respondent stating:

"Worried if I didn't do some things right. Worried if I didn't get on with the people I work for. Worried if I wouldn't be any good of a dental nurse" (P1:F4).

The most interesting comments received were from participants who not only acknowledged their challenges but confirmed that the PPP experience was essential in helping them overcome their internal challenges:

"Yes, I was challenged but became confident with practice. I did try to choose placements which offered a range of treatments available to get the most variety/experience from it" (P1:L6).

"Yes, I was challenged. I was shown how to do everything by the book and I was confident in myself when I was asked to do new things" (P1:M6*).*

The PPP experience was further noted to have played a role in one dental nurse's appreciation of working in a surgery while being challenged:

"I enjoyed working in a surgery environment. It was very challenging and different" (P1:V7).

However, others reported being overwhelmed by their PPP experience and associated challenges in relation to Stress and Competencies.

"Unprepared, a bit of a shock" (P3:H3).

"Different" (P3:B3).

In this instance the stresses and internal challenges encountered were acknowledged by the graduates, but so too, was their development of competence for this job.

4.2.2   Competence

This issue of competence was linked to stress and was seen as being an important part of readiness. One of the more interesting reflections directly linked the graduates' perceptions of readiness and competence to a judgement on the relevance or otherwise of the classroom knowledge (Kozulin 2003; Wells 1999; Vygotsk 1962), received during the academic part of the programme:

> *"I was a bit unsure that what we would have learned in the classroom would be different to what a dentist would do"* (P1:O4).

One graduate elaborated on the practical competences of learning the ropes of working in a practical setting, being in close proximity to the dentist and hoping not to be in the way:

> *"It's always hard to take on practical work that is new to you especially if you have never done it before. You need to work closely with the dentist and other staff members and it can be intimidating going in as a trainee trying to learn the ropes as quickly as possible and not feel like you are "in the way"* (P1:AI4).

Another was anxious of her knowledge and practical competence to be a dental nurse:

> *"Naturally, nervous about who you work with, will you fit in, etc... But I was more worried about "Do I know enough, to actually physically work as a nurse??" But you got to start somewhere.... after first placement, I was flying!"* (P1:AH4).

For some graduates their fear of making mistakes, while important, paled in comparison to their eagerness to get started in PPP:

> *"This was my favourite part of college. I could not wait to get stuck in. I was a little bit nervous to begin with but that soon went away"* (P1:N3).

4.2.3   Graduates Overall Experience

It is interesting to note that while the graduates acknowledged their stress and varying levels of competence, they also reflected on the totality of their experience when they considered their readiness for PPP. As we have seen, for some the initial experience was:

"Challenging" (P2:K30) and *"Tiring sometimes"* (P2:G30).

Mathews, et al (2013) concurred with the student's sentiments in the literature review when they suggested that students want to be confident and they want to learn and develop their knowledge and skills base. The believed that placement transformed the students into positive and knowledgeable graduates. These experiences emerged when graduates who were interviewed were asked to give a description of their feelings at the time of their PPP. These were summed up by words such as:

"Daunting" (P3:B4).

"Fantastic experience, very positive" (P3:D4).

For others, there was a mix of general anxiety that pervaded the PPP experience. Some graduates stated that they felt:

"Vulnerable and out of my depth" (P3:G8).

"*I did feel a bit over my head*" (P3:H8).

Whilst acknowledging that there were problematic elements to the PPP experience for a significant number of the participants, these elements of stress and competence were not universal. Nor did they remain a constant throughout the PPP engagement.

On reflection, they felt that it was *"just the unknowing"* (P1:N4).

"There was nothing to fear" (P1:Z4).

"Yes, I was nervous because I was unsure of what I was actually going to be doing and it was a new environment." (P1:G4).

Some respondents, when asked to reflect on their period on placement, stated:
"I enjoyed it" (P3:N3).

"I thought it was a great experience" (P3:D3).

"Overall had a very good experience generally" (P3:O3).

One graduate described that the PPP experience as an opportunity for her to develop c*onfidence* (P3:B8).

Others claimed that they were *"Very lucky"* (P3:K4), and *"Enjoyed work placement" (P3:L4),* which was ultimately *"Great"* (P3:J4), giving them significant *"Confidence"* (P3:F4).

This recognition of confidence was important, a faith and trust in oneself was something which emerged more substantially in Theme Two - Benefits. It could be said therefore, that in contrast to the stress, and competence worries that the graduates had harboured as students prior to the PPP experience, that their actual experience was far more positive.

For example, when asked in the focus group:

"What word would best describe your thoughts and feelings about placement?"
They outlined words such as:
*"Welcoming" (*P2:C30).

"Great" (P2:D30).

"Enjoyable" (P2:H30).

Reflecting on the responses, both positive and negative, the researcher realised that this dual effect was very real. She noted that while the graduates' initial experiences may have been a period of stress, worry, fear and difficulty, these experiences became more positive later. This, in turn, benefited their learning, as noted below and later in this chapter. In the view of the researcher it was reasonable to question whether it was possible to be completely ready for an experience such as PPP.

This can be seen in the overall evaluations of the PPP experience. Respondents tended to be very positive about it with one summarising the feelings of many when they said that:

> *"Practical experience is invaluable. Seeing the work flow of a practice in place is very helpful"* (P1:E5).

Some respondents elaborated on what elements of the PPP experience helped them become ready:

> *"I was lucky with my placement as my dentist wanted to teach me and give me an insight into every aspect of the job* (P1:U5).

Clearly, the role of the dentist as mentor was important in this instance. For others the 'learning on the job' aspect was critically important:

> *"I thought it was great as I learned new skills. I thought there was not enough days of placement. You learn most of your skills out in the working world"* (P1:K5).

Furthermore, the respondents have clearly shown an awareness of their stress, worry and readiness for PPP, and their ability, or lack thereof, to obtain clinical competence. However, their overall experience of PPP as trainee dental nurses, displayed a very strong commitment to the process and value of PPP as a module within an academic programme.

4.2.4 Value of PPP

Overall when asked if they thought a PPP module was necessary for all programmes, the answers graduates gave were 100% positive:

"Necessary for all programmes" (P3:B6).

"You get the opportunity to practice" (P3:C6).

"Definitely 100%" (P3:D6).

"Gets you on the ladder. Course wouldn't work without it" (P3:K6).

"Brilliant, gives a great insight" (P3:L6).

One graduate summarised her feelings by stating that:

"Of course, it was beneficial. How else was I supposed to learn how to be a dental nurse? A book cannot teach you these things. Work experience is the only way you can learn" (P1:O5).

This acknowledgement of the necessity of PPP and positivity towards it supports Harvey's (2003) view that PPP is generally associated with positive outcomes for employment and acquisition of skills and knowledge and assists with an easy transition from education to working life.

The value of PPP is further reinforced through the graduates' awareness of the benefit of having clinical experience prior to employment:

"Ya because you had to bring a bit of experience" (P3:J7).
"Yes, still working there" (P3:H7).

"Definitely 100% vital element" (P3:B7).

4.2.5   Deduction

When reflecting on the impact of stress, graduates tended to have mixed views on the impact of this on their long-term engagement with PPP. For some, the placement period was bitter-sweet. For others, while the stress, worry and nervousness at that time, was very real, it did seem to be initial nerves and not something that had a prolonged effect. They acknowledged the building of Competence in skills, which led to a positive outlook on their Overall Experience in PPP. The graduates also recognising the Value of PPP for all academic programmes.

Each topic was not only linked together but also related to the main theme of Readiness. Some topics overlapped slightly with Theme Two because graduates acknowledged their worries, nerves and anxiety while recognising the fact that PPP, although challenging, was also very beneficial for their Learning, Confidence, Communication and Employment prospects. They were very aware of the Value of PPP within an academic programme. Aspects of these links will be discussed further in Chapter 5.

Theme Two:	Topics:
Benefits	o **Personal Benefits** o **Learning** o **On-Site Training and Classroom Knowledge** o **Professional Preparation** o **Development of Skills** o **Confidence** o **Communication** o **Employment** o **Supports**

4.3   Theme Two: Introduction

This theme addressed the benefits obtained by the graduates, specifically with regard to learning, demonstrating the advantages and importance of learning both on a personal and professional level. The theme looked at the influence of PPP on learning from the viewpoint of both graduates and dentists under the topics listed above. While learning contributed to a large part of the literature review, there were several elements associated with it which became very prominent; in fact, learning has been linked not only to each topic but every theme in this research. When the graduates reflected on their PPP as a student, their responses were positive regarding the purpose, the essential nature of work experience and the need for practical and clinical experience. Some areas of learning and purpose of PPP have over-lapped with the Topics of Competence and Value of PPP, identified in Theme One. In this context it must be noted that the respondents commented specifically on the personal benefits of a workplace element, the Learning obtained, the link to On-site Training and Classroom Knowledge, the Professional Preparation, leading to the Development of Skills, the Confidence gained, the need for Communication and the acquisition of Employment.

4.3.1 Personal Benefits

This topic was identified in the on-line graduate survey in response to the following question:

"Was the work placement experience (PPP) of benefit to you learning new skills?"

They responded in detail and outlined what they had perceived to be the benefits of the PPP period:

> *"Yes, I definitely, benefited from work experience as it's the only way to learn certain things i.e. how to do suction or how to mix materials correctly and efficiently and how you are expected to interact with patients. Also, how to clean down and set up for the next patient in a certain amount of time. In my opinion the most important being, the mixing of materials, use of machines and doing suction correctly"* (P1:F5).

> *"Yes, I feel it helped me deal with angry patients, but it also helped me deal with nervous patients as my 2nd year placement involved a lot of work with nervous older patients. This greatly benefited me with dealing with these types of people"* (P1:W5).

Specifically, they reflected on the personal advantages of learning new skills while on PPP (Sloan 2015; European Commission 2013; Boud and Solomon 2003) and they gave almost universally positive responses saying, for example, that:

> *"Yes, it was. We were carrying out the procedures we learn about from books and doing it in practice. Learning new skills was so beneficial in every way"* (P1:C5).

The importance and complexities of learning (Illeris, Dewey, Vygotsky's, Bandura, Piaget, Kolb and Mezirow) was continually highlighted along with team work and the running of a practice:

"You learn how to speak to patients how to have good telephone manner. How different dentists all work differently. How important team work is. How procedures are done. How x-rays are done. How the day to day running of a successful practice goes. Etc." (P1:D5).

The practical experience was acknowledged by the respondents when they described the day-to-day activities which had led to their learning and obtaining new knowledge:

"If you didn't have that learning from college and you just went out you wouldn't know what to do and that's why it was great in college. It's showed step by step this is what you are meant to do, this is what the dentist does. The only way to learn is to go out and practice it. The purpose of the work placement was to learn. You learn different styles" (P3:C5).

4.3.2   Learning

The graduates provided a number of insightful comments on the importance of learning and the link between it and on-site training, classroom knowledge (Kozulin 2003; Wells 1999; Vygotsk 1962), and practical procedures during the PPP experience. Learning as described by Kolb (1984) is a *'process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience'* (p41). When reflecting on what was learned on-site and, in the classroom, focusing on its relation to the practical element of PPP, one respondent stated:

"Yes, I feel as though from doing work placement it helped all the information I had learned in college all clicked into place" (P1:AD5).

Clearly, the experience of placement acted as a lens or a prism which allowed participants to reflect on the theoretical knowledge of dental nursing while at the same time providing a platform to allow them to enhance their basic practical skills.

Another respondent picked up on this idea and stating that they:

"Learned a lot of new things and ways of performing procedures" (P1:J5).

Another highlighted the small 'eureka' moment when everything had come together:

"You know the way when you are learning stuff when you were actually in the surgery and you were like right this is what they were talking about or that you know what I mean" (P3:J5).

Perhaps a little worryingly from the perspective of the course coordinator (researcher) was the idea that there were things that you 'could not obtain' in the academic part of the programme:

"Yes, skills you couldn't obtain in the course content that are required for working, time management and time allocation from the diary, for run of surgery, identifying instruments and different autoclaves and responsibility towards infectious disease and universal precautions" (P1:M5).

On the other hand, some things 'obtained' as part of the programme were not in their opinion relevant, as one respondent stated:

"There was a lot of science experiment and as I have learned from working in different practices that knowledge was not relevant" (P1:M9).

Overall then, the experience of working in a dental practice allowed students to reflect on what they had learned in lectures and then *'re-learned'* it in the PPP context – seeing its relevance and application.

4.3.3   On-Site Training and Classroom Knowledge

The participants who took part in this research represented a combination of graduates from the dental nursing programme who had undertaken their studies

prior to and post the completion of a purpose-built dental nursing suite (Gardner 2014; Kozulin 2003; Wells 1999; Vygotsk 1962). The absence of a fully equipped and functioning dental suite was seen by both cohorts as having been important and reinforced the need (at that time) and the value (currently) of having a state-of-the-art dental suite.

> *"We had no dental chair at the time. More chairside experience would have benefited some students"* (P1:D9).

> *"More practical work is needed like how to do saliva suction in the best way"* (P1:T9).

This was further supported by another respondent's experience as she said that:

> *"Theory and practicals definitely helped. However more focus on the practical side would have helped massively in preparation for work placement"* (P1: P9).

Some dentists noted that practical on-site training was necessary, suggesting that:

> *"I think that they need more lecture/practical teaching on courses in preparation for clinic"* (P4:O10).

> *"Need for practical experience - clinical skills should be the main focus"* (P4:AD4).

Those respondents that completed the dental nursing programme after the dental suite had been installed commented on this fact:

> *"I learned a lot, the theory and everything in college was brilliant. The teachers were very good, but you still need the hands on. You know to actually be put in that situation and even now like years later I'm learning so much"* (P3:I5).

"Oh, ya and even, I learned a lot, we had learned the materials in college, we had learned the instruments and things like that all like cleaning and suction line were all very new, the practical stuff was all new to you, I was there putting your theory during the week into practice at the weekend like you do, you only learn so much from the book" (P3:L5).

Overall the graduates claimed that as students, their experience of PPP was good and enjoyable:

"On reflection - good experience" (P2:L28).

"I loved working as a dental nurse from the minute I walked in the door" (P1:D7).

Graduates acknowledged that they had gained confidence:

"I enjoyed it because it gives you a real feel for what the job is about and gives you confidence in applying for jobs after you have qualified but there were times when I did feel like an extra pair of hands as opposed to a trainee there to learn the ropes" (P1:E7).

The real-life experience had resonated with several respondents:

"Feeling like real-life; working life! I knew that this is what I was studying towards" (P1:F7).

"Yes, the practice I worked in were really helpful, friendly and encouraging" (P1:N7).

As previously mentioned, the H.C. in Science (Dental Nursing) comprises of a two-year programme which contained an element of PPP each year. When the DN graduates reflected on their experience, some claimed they were out of their depth in year 1 for their first placement, whereas in year 2, for their second placement, they reflected on having a better learning experience:

"To be honest I just went in with an open mind………" (P3:N8).

"Second placement was much better, the girls (staff) were brilliant" (P3:O8).

"I didn't enjoy second year but enjoyed first year and am going to go back" (P2:E29).

It may be realistic to assume that when you try something once, the second time won't be as intimidating. Experiencing new things may be unnerving. However, in the context of this study, the on-site training and classroom knowledge, combined with the professional preparation prior to PPP, seemed to have an impact on the level of stress encountered. This additional support provided a sense of confidence and gave a realistic view of their future employment situation. This idea is explored in more detail in the next section. This has linked back to Theme One the **Readiness** of the students prior to commencing PPP.

4.3.4   Professional Preparation

While on PPP, the participants noted that they had become more aware of their future career and the fact that it was becoming a reality. It was interesting to note that career and employment was something which did not register with the student until they had gone on PPP:

"I suppose with placement that you do see the career that I'll be doing for the rest of my life" (P3:L7).

It gave me a greater knowledge of the practical side of the learning. It was easier to understand the theory bits when you go out and physically do them (P1:X5).

"Learning new skills for the future" (P1:J7).

It is both thought provoking and positive to see the emphatic answers from the respondents when they had acknowledged the benefits of PPP, again over-lapping with previous topics of Learning, Personal Benefits, the Value of PPP and Confidence.

"It taught us hands on nursing skills, dealing with people and the pressure you can be under on a busy day" (P1:Q5).

Another respondent clearly stated the fact that:

"You cannot learn to mix alginate from a book; or how to speak to members of the public. It only comes with plenty of practise and experience" (P1:G5).

These answers were particularly interesting given the lack of prior knowledge about the presence of a PPP element in the programme for most of the graduate cohort surveyed.
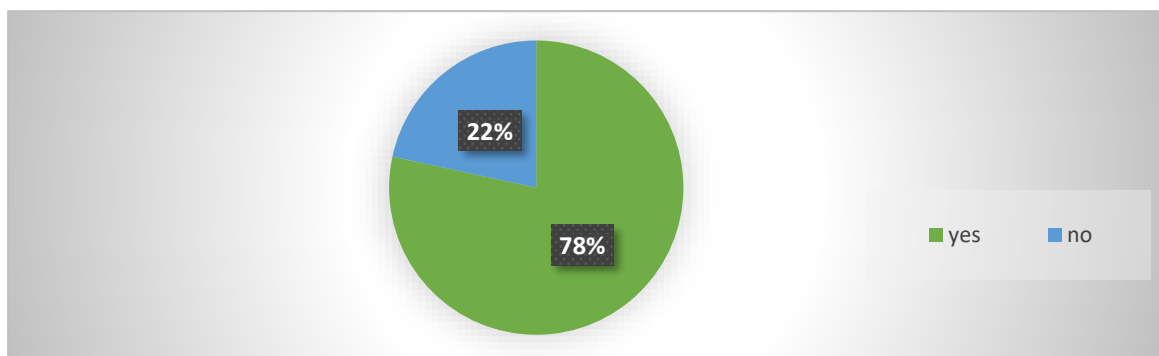
Figure 4.3 - Prior Awareness of PPP with DN programme

Figure 4.3 showed that 78% (29) of the respondents had agreed that they were not aware that a PPP element was part of the dental nursing programme.

Interestingly this did not appear to have had any impact on the overall view of the value of PPP:

"No, I was excited, as I could get experience in the area before I entered it for real" (P1:K3).

"No, I thought it would be a good experience" (P1:S3).

Personal Benefits and Professional Preparation were further highlighted by the dentists. They viewed Personal Benefits and Professional Preparation as being important elements in a student's learning experience and progression. Their comments concurred with both Knowles (1998) and Dewey (1938) saying that:

"Students need to have experience in a 'real-world' setting" (P4:K6).

"They can put into practice and see for themselves what is involved within the surgery practice etc" (P4:J6).

Some dentists believed that the hands-on experience is beneficial to their learning suggesting that:

"Nothing like doing the job to learn about the job. Practical experience is essential as the job itself is very hands-on" (P4:P6).

Another dentist, reflecting on the theory/practice intersection, suggested that *"Once they have a practical approach, theory makes more sense"* (P4:U6).
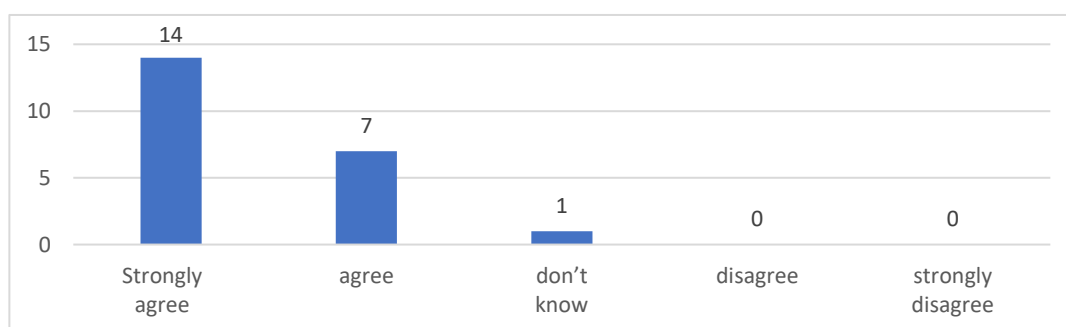
Figure 4.4 – Dentists Views on Value of Work Placement

Responses to the question of whether "*PPP was a necessary element for every student dental nurse?"* clearly indicated that dentists agreed that the PPP element is necessary for every dental nursing student, with 21 out of 22 dentists agreeing with the statement, none disagreeing. Interestingly, only one respondent declared

that they were unsure about the need for the workplace element. It could be argued therefore, that dentists were happy with a PPP element within the dental nursing programme.

4.3.5   Development of Skills

The dentists put forward some interesting insights on the role of PPP as a location for the development of what they saw as being the key professional skills of the dental nurse. In essence, they believed that the development of clinical skills should be the main focus of a student's learning and that the PPP setting is the most suitable location for developing these skills. When dentists were asked about their views on the focus of student learning on PPP, the majority agreed that the emphasis should be on clinical skills rather than on soft skills. Figure 4.5 shows this variation with 55% (12) focusing on the centrality of clinical skills and 41% (9) emphasising the soft skills.
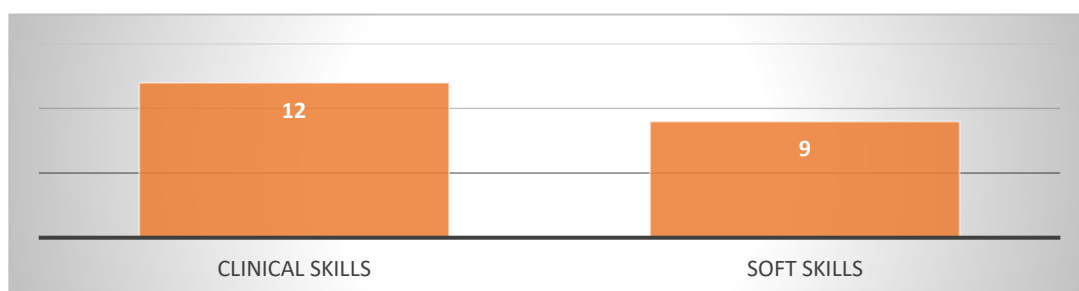
Figure 4.5 - Dentists Views on Most Important DN Skills

The participating dentists were asked the following question:

Given an option to employ
- (*Nurse A),* "*Dental nurse with little knowledge of clinical skills (a willingness to learn) but having excellent soft skills", o*r
- (*Nurse B) "Dental nurse with excellent clinical skills but poor soft skills",*

An overwhelming 91% of the respondents indicated that they would choose dental nurse A, with 9% indicating a 'don't know' preference, signifying therefore

that none of the dentists would choose dental nurse B. This implied that dentists preferred a dental nurse who had obtained a significant number of soft skills.
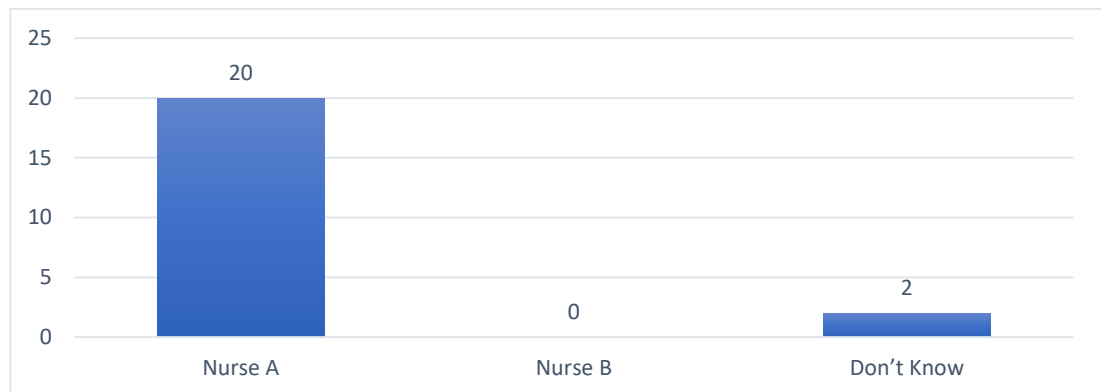
Figure 4.6 - Dental Nurse Skills Preference

What was surprising for the researcher was the reversal in preference. When the dentists were asked if *"Clinical skills should be the main focus (of learning) for the student on placement?"*

One dentist stated that:

"If possible, they should develop both clinical and reception skills" (P4:U4).

Some dentists believed that:

"Clinical skills can be picked up very quickly, soft skills much more important" (P4:L4).

"Clinical skills can be easily learned whilst so called soft skills are more innate" (P4:W7).

"Clinical skills are easier to learn than soft skills. For a lot of people soft skills are something that you naturally either have or have not" (P4: AB7).

Another suggested that:

"I believe you cannot do one without the other" (both clinical and soft skills) (*P4:N4).*

One dentist elaborated further suggesting that:

"*Eventually nurse "A" will be a far better nurse. No matter how good a person is clinically, if you do not have empathy, enthusiasm, humour and genuine love of what you do, you will never be a great nurse"* (P4:R7).

What was perhaps telling was the fact that the dentists and the dental nursing graduates both emphasised the need to acquire, teach or learn both clinical and soft skills.

One dentist suggested that:

"It is impossible to teach soft skills but possible to teach clinical skills" (*P4:M7).*

In one case a graduate proposed that maybe PPP should have been divided equally between reception and surgery, providing a distinction between soft skills in the former and clinical skills in the latter:

"I think maybe it would be a good idea if there were changes made. You could do a half day in reception, and then in surgery because some practices you could be in surgery the whole time" (P3:M16).

When the graduates reflected on their PPP learning experience, they noted that it had provided opportunities to develop or enhance their soft skills:

"It's a great opportunity, communicating with the patient, ……you weren't that used to communicating with people one to one" (P3:C3).

Others commented that it was *"the work placement I thought it was great"* (P3:J3), *"The best thing ever"* (P3:G3).

It is interesting to note the viewpoints of both graduates and dentists and their recognition of a student's learning and professional preparation and possible development while on PPP. Dentists were universally positive and recognised the value of combining classroom and clinical setting in preparation for employment:

"Learning on job in practice cannot be taught in books/lectures" (P4:X6).

"Prepares them for all aspects of their career" (P4:U10).

Interestingly, some dentists reported that PPP was probably the only way for dental nurses to learn:

"Only way to learn true dental nursing is different circumstances that are encountered in same practice" (P4:S6).

Other dentists suggested that the dental nurses should be challenged and supported in their training:

"It's very hard to see the point in a lot of what clinicians do unless you see it in a day-to-day setting" (P4:V6).

It was noted that the dental nurse students should appreciate the reality of the daily operations of a real-world dental practice:

"It shows nurses what goes on in the real-world of clinical dentistry which can vary substantially from the ideal setting of the classroom" (P4:W10).

"Work experience in any field prepares the undergraduate for real-life experience" (P4:Y10).

4.3.6 Confidence

Confidence is considered to be a belief or faith in oneself. It is mentioned on numerous occasions throughout Theme One and Two, and later in Theme Three. Interestingly, confidence or lack thereof, was something of a golden thread that linked all themes in this research. It is for that reason that it was positioned here, to signify its importance as a benefit and not merely a characteristic as was mentioned in Theme Three. The graduates acknowledged a greater awareness and expansion of qualities such as Confidence, in their Overall Experience, and the Value of PPP (Theme One) along with Attitude and Personality (Theme Three) because of their PPP experience in conjunction with the On-site Training and Classroom Knowledge (Theme Two):

> *"(The PPP) gave me the confidence I needed to be an excellent dental nurse, charting, fillings, put what I studied into practice which I loved" (P1:Y5).*

> *"It built up confidence in what u were learning and got us familiar with what instruments looked like and what they were used for" (P1:AB5).*

The development of confidence while on PPP was very evident to this dental nurse:

> *"At first, I was not confident as we did not do much hands-on nursing experience in college i.e. suction, mixing etc., but when I was shown what to do and how to do it my confidence grew"* (P1:T6).

> *"When I first started I was thinking probably now I will be just jumped straight in and go ahead but I went in. I was observing for a good bit until he had the confidence in me and I had confidence in myself he knew, and he'd say come in and you can go and assist"* (P3:C9).

Dentists also acknowledged that confidence is an important characteristic regarding coping abilities, particularly when dealing with patients in a busy

practice which reflects the research outlined in the literature review by Meekel and Jenkins 2013; Knowles et al 2011; Chen et al 2011; Boud and Garrick 2004; McMahon and Quinn 1995 and Clancey 1995). The dentists claimed that: *"Confidence, ability to cope with a busy stressful situation, ability to deal carefully and confidently with different patients"* (P4:V9) were necessary requirements.

4.3.7 Communication

Good communication skills are an important asset in any workplace. One of the graduates felt that communication is important for all parties, the student, dental practice and higher education institute.

"Quite a lot of high communication levels needed" (P3:B10).

The dentists mentioned good communication with the view that it is an essential skill they would like to see their dental nurses possessing:

"Communication skills, team work, cross infection control" (P4:J9).

"Confidence, communication" (P4:R9).

It may have appeared that communication was insignificant due to the sparse comments received but it was noteworthy that the comment such as that from the graduate (P3:B10), was a statement of awareness rather than a point that needed to be amended or rectified. The dentist's view of communication was from a different perspective. They wanted the student to focus their communication skills towards the patients and staff. While on PPP the students develop both personally and professionally (OBrien 2017; Keogh 2016; Eick et al 2012; Illeris 2007). It is considered that during this time that reality becomes apparent as students realised that this is the career that they had chosen for themselves and that this is where they were going to be employed. In this context, the realisation of the necessity to be able to communicate effectively emerged as an important consideration.

4.3.8 Employment

Cunningham (2010) recognised that the PPP experience provided an opportunity to impress employers with a view to obtaining full-time employment following graduation as it potentially provided a platform to impress a future employer (HEA 2017, HEA 2016, Cunningham 2010).

This research has supported the claim that a student on PPP had gained first-hand experience of the working world. As mentioned earlier in the discussion of topics Professional Preparation and Development of Skills, the graduates acknowledged that it is during the PPP experience that the real-world experience of dental nursing as a career became a reality.

A competent dental nurse is a valuable employee within any dental practice. Dentists recognised not only the skills acquired on a PPP experience, but also the learning and professional preparation attained by graduates prior to employment. Dentists expressed their views in agreement:

> *"Yes, shows them how surgery is ran and also how to communicate with staff and employees (P4:S10).*

> *"Real-world experience is essential and an eye opener for students"* *(P4:N10).*

However, one dentist responded by saying that:

> *"If I had my way it would be 3/4days placement a week for 2 years and lectures at night"* (P4:Q10).

Another implied that the student didn't experience responsibility until they became an employee.

> *"In part it does expose students to actual work life and expectations but eventually experience in one's job only truly begins when you start working*

the job every day and are responsible for everything you undertake" (P4:R10).

Additionally, graduates concurred with the sentiments of the dentists when asked if they appreciated the PPP as preparation for Employment, again linking back to the previous topic Value of PPP.

"Definitely, because I could put on the CV that I actually had experience and the dentist I had worked with said if I need a reference I have it, whereas you wouldn't have that coming straight out of college" (P3:D7).

"Yes, yes, absolutely beneficial for employment. Got an excellent reference" (P3: E7).

Two of the graduates elaborated on the benefits of not only the placement experience but the additional part-time work and eventual employment:

"Well I suppose last year I got a summer job out of it and it gave me the experience in it and I was working on a Saturday as well throughout the year, so you know I got a lot of benefit from it and then they gave me full time employment" (P3:F7).

"Ya definitely, definitely that's what got me the job in Sligo to be honest" (P3:G7).

This research has predominately focused on the graduates' perspective of their experience as a student dental nurse on PPP. During the interviews, the graduates emphasised the importance they placed on the opportunities it had provided them as they progressed to further education and/or employment.
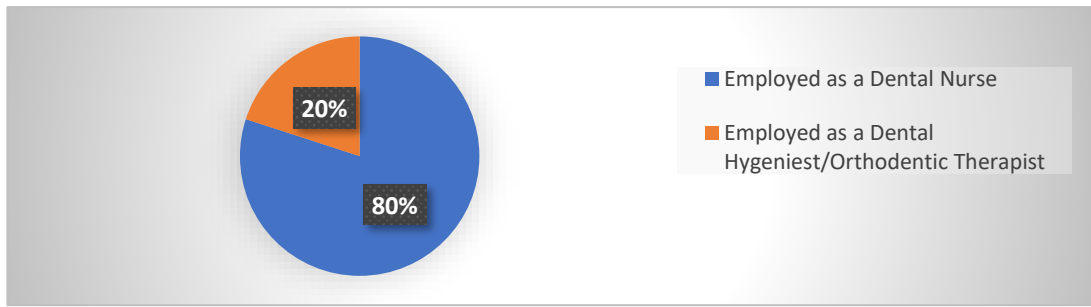
Figure 4.7 – The Graduate Employment Profile

When consulted about their employment profiles, the graduates indicated that all were employed at the time of interview; one was on maternity leave and one was on sick leave. Twelve of the graduates were employed as dental nurses, and three were furthering their education to become dental hygienists and an orthodontic therapist.

Two of the graduates had spoken about their travels in Australia. When asked if dental nursing was a good career choice for travelling, they responded by saying:

"Oh, I couldn't recommend it (dental nursing) highly enough" (P3:B21).

"Irish girls who are dental assistants are being payed ten grand to keep them there (in Australia)" (P3:J21).

The graduates claimed that:

"The Irish nurse is well recognised and highly sought after in Australia" (P3:B20).

"Lot of them (dentists) only want Irish out there (Australia). They will pay any money, they just want to keep you" (P3:J20).

They also noted that:

"There are some dentists out there who will only employ Irish girls because they say that they are the best trained" (P3:J19).

"There are more incentive bonuses, get paid extra if you work past your finishing time" (P3:B19).

4.3.9 Supports

A number of graduates referred to the help and support they obtained while on PPP. '*Education is all a matter of building bridges*' (Meekel and Jenkins 2013, p1). The variety of bridge building in the form of help, support and guidance that the graduates had received is reflected and expressed freely in these findings. Graduates reflected on the advice, guidance and backing received from the staff within AIT:

"We could ring you (placement coordinator) any time if we did have any trouble so, we always knew that ye were there as a support group for us" (P3:I10).

They acknowledged the fact that they had received support and guidance from the dentists and staff while on their PPP:

"I really enjoyed my work placement you know I had a very good practice. You know there was very nice staff there the dentist and the oral surgeon that I worked for were great they were very nice and helpful" (P3:H10).

"I was very, very, lucky where I was. They helped me a lot. They kind of taught me as well throughout the year" (P3:F10).

It is reassuring to note that peer support was received from and provided by their classmates:

"No, I found it easier doing it in practice and then coming into class and just even from the fact that you were able to talk about it as well with the other girls as well helped" (P3:E10).

In addition, there is an awareness of the intimacy and camaraderie that is found within a small group of classmates:

"But the great thing about Athlone as well, we were only a small group of people. There was only 28 of us and everyone got on, so everyone helped out you know as much as we could. (Speaking about a class mate), we gave her moral support more than practical support, but she reckons she wouldn't have got through it without the moral support" (P3:D10).

"They were very helpful" (*P3:H11).*

"She was brilliant for just like talking me through absolutely everything. I learned an awful lot there" (P3:O10).

The significance of support received from AIT staff, dental professionals and class mates while on PPP was evident and appreciated by the graduates.

4.3.10 Deduction

In Theme Two, the research findings related to the Benefits achieved both personally and professionally by the student dental nurse, namely the amalgamation of Learning, both in classroom and in practice, the Skills Obtained and Developed, the building of Confidence and Communication leading to Employment. Mathews et al (2013) supported these findings as they described how students were initially worried, nervous and anxious (Theme One) while starting out in the PPP. This research demonstrated that the students were less vulnerable as they progressed and developed their skills, through the PPP process. Their Communication and Confidence grew and developed (Mathews et al 2013) as they gained help, Support and guidance from each other and supporting staff.

PPP undoubtedly has brought many benefits to the DN students. This was further supported by views presented in European policy documents which have maintained that education is of vital importance and that PPP is an essential component of education (HEA 2017, HEA 2016, NSHE 2011).   These areas of interest will be further discussed in Chapter 5.

Theme Three:	Topics:
Personal Characteristics	o **Personal Educational History** o **Care Giving/Caring for People** o **Personality** o **Attitude** o **Attributes**

4.4 Theme Three: Introduction

It would seem from the previous Themes and Topics that that PPP provided an expansion of Learning, Professional Preparation and Development of Skills and gave the trainee dental nurse a reality check into the career they had chosen for themselves, which may eventually lead to Employment:

> *"Yes, the work experience lets you see if you liked working in surgery or reception. It let you know how exactly doing this course was what you wanted to do by getting the work experience"* (P1:H5).

This theme has focused on the reasoning behind choosing this career path, their acknowledgement of their interest in Care Giving and Caring for people some of which stems from their own Personal Experiences, and the Personality, Attitude and Attributes needed to be a proficient all-round dental nurse.

4.4.1 Personal Educational History

As with all career choices in Ireland, the academic and education experiences of graduates while in secondary school has impacted on the career choices of the graduates surveyed. For many of them, there appears to have been an interest in nursing as a career in a general sense. Reasons for the decision to choose dental nursing were varied, and often resulted from the graduates' engagement with the secondary school system and the university applications system, the Central Applications Office (CAO).

Some confirmed that initially they had wanted to do general nursing but that engagement with course material from the dental nursing programme led them to change their minds:

"I originally wanted to study general nursing but when the option came to fill out the CAO I noticed dental nursing on the AIT site, so I read and found it very interesting. I applied and got offered the course" (P1:D2).

For others, it was the reality of the competitive nature of University entry in Ireland that led to their choice of course:

"It was a plan B. I didn't get points for my general nursing/midwifery and it was in my home town" (P1:AB2).

Interestingly, others had completed a Transition Year (TY) programme in secondary school which led to an interest in nursing and care giving:

"I done my TY work experience in a dental practice and was really interested in the nursing side of it" (P1:K2).

Arguably, there were as many reasons for choosing dental nursing as there were graduates. Dental Nursing, in the researcher's opinion, required a certain type of person. Some careers demanded vocational and personal commitment with specialised skills, training and knowledge, whereas other careers might be less personal and more technical. Dental nursing is among the former.

4.4.2   Care Giving/Caring for People

When consulted, the dental nursing graduates identified that caring for people is important for them and the career they would choose. Care giving and caring for people are vital foundations for the role of the dental nurse:

"I choose to undertake dental nursing as my career choice after doing it for my work placement in school and falling in love with the job and the patients and people you get to meet every day" (P1:M2).

They emphasised their need to care for people and to be able to work in a caring environment:

"I enjoy looking after people, the elderly, the young and everyone in between" (P1:O2).

"Liked the idea of helping people get out of pain" (P1:Z2).

While the benefits highlighted in Theme One and Theme Two predominately related to PPP - the Overall Experiences and Value of PPP Learning, Development of Skills and Confidence, Theme Three has taken a more personal approach, outlining the reasons why graduates have chosen Dental Nursing as a career choice. A number of graduates expressed their desire to enter a career that helped and cared for people:

"I consider this is a caring job, Love working with people, lovely hours" (P1:G2).

While another replied:

"Teeth are the first thing I notice about someone…….I really wanted to be part of the patients' journey to the dentist." (P1:R2).

For some, this emerged from their own personal experience as patients within dentistry and the dental practice. They saw the dental nurses as professionals in a professional setting offering care, something they imagined they could prescribe to, in the same manner as they received it:

"I chose to take dental nursing up as a career because I had a good bit of dental work done and I thought it was a nice job to have" (P1:X2).

"I had braces when I was young, so I spent a lot of time in the dentist and that's where the interest started" (P1:P2).

"I enjoy working with people and caring for them. I also enjoy the organisation behind the scenes! I had braces, so I know the importance of caring for them" (P1:T2).

Furthermore, dentists agreed that it is important that dental nurses have a helpful and caring approach:

"Clinical skills are obviously important for what you do day to day, but overall care and enjoyment and understanding of what it means to work with the public and an individual person is vital" (P4:S4).

"Any health care worker needs to interface well with patients as much as knowing good clinical skills" (P4:P4).

While a recognition of wanting to care and help people is admirable, it is not an easy job. For this reason, the researcher believes that one needs to be a certain type of person to administer to, show empathy with, and understand not only themselves, but patients who may prove to be difficult because of pain or illness.

4.4.3 Personality

Personality was mentioned initially by the graduates who suggested that their own character had a lot to do with their learning, and their ability of *"getting on with it,"* especially with regard to jobs such as toilet and floor cleaning and other tasks that were not directly part of their dental nursing job description. These were jobs that had to be completed daily in order to keep a busy practice running smoothly. Personality has been referred to as the individual differences of our character, the set of characteristics, traits or values which have helped us in how we might think, feel and behave. It is our personality which had guided us to alter and deal with our daily challenges (Sabini 1995; Atkinson 1993). The researcher

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was interested in finding out whether the graduates thought their personality had influenced their decision to do or not to do, non-dental jobs:

"Definitely down to my personality and definitely because I was a more mature student" (P3:D14).

"Exactly just get stuck in and get on with it you know. I never had any issues you know I wouldn't be talking just treat everybody the same" (P3:J14).

"Ya I would do, it if someone asked me to do anything. I'd be just alright I'll just do it" (P3:C14).

The research findings identified the ability to work well in a dental practice, which is reflected in some of the graduates' responses regarding personality (Vaughan 2008) and confidence (Knowles et al 2011) mentioned previously in literature review and throughout Themes One and Two:

"*Yes, personality and confidence and the fact that you are working in a nice place"* (P3:B13).

"Personality plays a bit role in how you get on really doesn't it?" (P3:L13).

"Yes, it's a big thing (personality) as well, you have to be outgoing. You have to put yourself out there, really be friendly towards others and ask questions, some of them love for you to ask questions because they feel like they are teaching you" (P3:M13).

One characteristic mentioned by the dental nurses was Attitude; the ability to acknowledge and appreciate the Value of PPP, previously mentioned in Theme One. One's Attitude and the Attributes they possessed were noted to be of importance to both the dental nurse and the dentist.

4.4.4   Attitude

The impact of a dental nurse's attitude (Offir, Lev and Bezalel 2008; Yopp 1988) was described by some of the respondents:

> *"I certainly enjoyed the placement, I got on well in my work placement, I got on extremely well. I took the attitude I'm on placement and I'm lucky to have placement"* (P3:E3).

Some respondents felt that their age might have helped with the way they handled PPP and that this may have influenced their attitude and willingness to use their own initiative to apply themselves well to the dental workplace (Schuller, Preston, Hammond, Brassett-Grundy and Bynner (2004):

> *"My age might have made a difference (with regard to attitude) because I wasn't afraid to ask questions and I wasn't afraid to use my initiative"* (P3:D8).

> *"Went in with an open mind. I wasn't afraid to ask questions and I wasn't afraid to take criticism"* (P3:D9).

One dentist recognised the need for a caring attitude

> *"Caring attitude and empathy with patients"* (P4:J7).

It is interesting and understandable to note that dentists like to see a dental nurse with a caring, considerate and confident attitude Mathews, Simpson and Crawford (2013). They value and would possibly want to employ a dental nurse with such attributes. Qualities outline in the literature review by Illeris (2009); Vaughan (2008); and Mezirow (2009).

4.4.5   Attributes

The dentists stated that they would like a dental nurse who could demonstrate the following attributes:

"Empathy, patience, kindness to all patients, an understanding for nervous patients, kids and sick patients" (P4:K9).

"Chairside assisting, i.e. high-speed aspiration and preparing for incoming patients, appropriate knowledge, decontamination and sterilisation techniques, good interpersonal skills e.g. pleasant manner with patients" (P4:N9).

Some dentists felt that both confidence and ability to work within a team were essential qualities, necessary for a busy working practice:

"Team spirit, trust and good work ethic" (P4:P9).

"Confidence, friendliness, professionalism, communication and clinical skills" (P4:X9).

In contrast, other dentists identified that computer and reception skills were valuable attributes:

"Computer skills, Word, PowerPoint and introduction to dental programmes" (P4:S9).

"Organisational preparedness, ability to anticipate, instrument recognition, infection control, suction, telephone and face to face communication skills" (P4:T9).

Finally, there were dentists who appreciated the all-rounder with elements of all attributes:

"Good interpersonal skills, ability to work under instruction, good hand eye coordination, patience, attention to detail" (P4:W9).

"Good team working ability, especially with other members of staff, reliable good mannerism" (P4:Q9).

One dentist claimed that skills can be learned but:

"Must have the opportunity to practice gaining confidence" (P4:U5).

Ultimately, they agreed:

"Anybody going into dental nursing or dealing with the public needs to have a nice manner. Everything else can be taught" (P4:J5).

A report from the HEA (2016) identified that employers were satisfied with the personal attributes of the graduates employed (Liston, Frawley and Patterson 2016), although O'Brien (2017) indicated that employers needed graduates with a host of attributes, especially emotional intelligence, creative thinking and problem solving as well as being a team player (O'Brien 2017). The need to instil qualities and/or attributes in our graduates is increasingly evident (Keogh 2016). When graduates leave third level education to procure employment it is important for us as educationalists, and for themselves as responsible professionals, that they leave with a mindful awareness not only of their own needs but those of others.

4.4.6   Deduction

The success of any dental practice is highly dependent on the employees, specifically dental nurses, as they are the ones at the forefront of the practice. Dental nurses need to have, and be able to show, their caring personality when dealing with the patients. In addition to the extensive list of attributes required by employers such as ability, experience confidence and attitude. Theme Three recognised the characteristics required to be part of a caring profession,

acknowledging the need for Care and recognising the respondents' Personal Educational History, their Personality, Attitude and Attributes.

Theme Four:	Challenges:
External Challenges	**People** **Transportation** **Finance** **Finding a Suitable Placement**

4.5 Theme Four: Introduction

The challenges in this theme over-lapped slightly with Theme One – Readiness and Internal Challenges. This is because challenges in most cases had led to worry, nervousness and anxiety. The researcher felt that it was necessary to combine Internal Challenges with Readiness as the graduates, on reflection, noted their Internal Challenges related to oneself, whereas the External Challenges, related to people, transportation, finance and finding a suitable PPP.
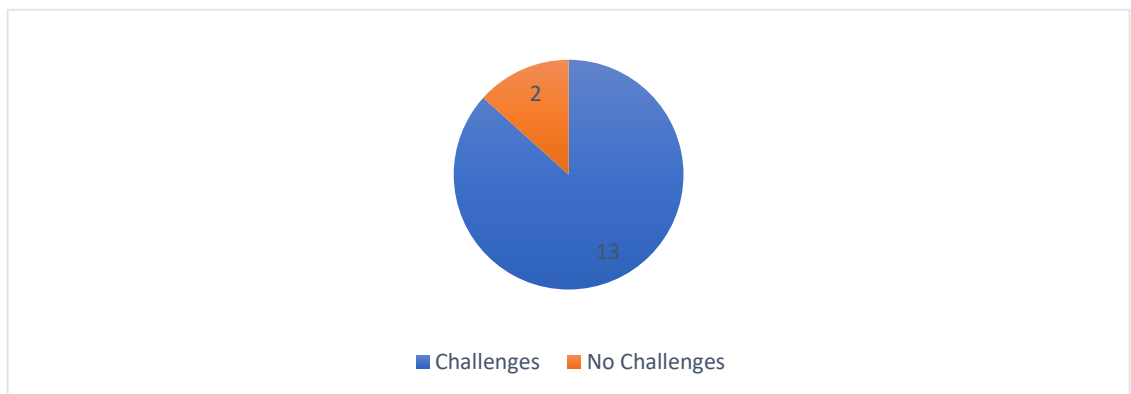
Figure 4.8 – Dental Nurses Challenge with Dental Staff or Patients

4.5.1 People

When the graduates were asked about challenges that they might have encountered with the practice staff or patients, 87% claimed that they were not adversely challenged.

This is reassuring in many ways, as it indicates that the dental nursing environment is a welcoming and supportive one for dental nursing students. It is important to note however, that 13% felt work-related challenges had existed, such as working in a team with all women or being exploited by the dentists:

"It could be difficult to fit in with so many women" (P3:M11).

"Yes, could be taken advantage of by dentist" (P3:M14).

These latter two comments were important as they had hinted at broader social and employment realities that often face workplace students, trainees and new employees.

4.5.2   Transportation

Graduates recalled being concerned about transportation, cost implications and the fact that it could be difficult to get to a PPP if they didn't drive, depending on where they lived:

"Transportation not knowing if the bus was going to be on time" (P3:B14).

"Transport - needed a lift" (P2:G21).

"Transport needed to get a lift" (P2:I21).

It is worth noting again, that the H.C. in Science (Dental Nursing) contained two terms:

"Well in first year I didn't drive so I was dependent on lifts and buses and all that. It wasn't too bad" (P3:M14).

Furthermore, lengthy travel time proved to be difficult for one respondent:

"I was travelling for three years but I have found that was an hour and a half up and an hour and half home and the cost of that. I had a husband and two teenagers with one that would have been going through the Leaving Cert and one was going through Inter-Cert" (P3:I14).

4.5.3   Finance

Another challenge outlines in the literature review by Casey Fink, Krugman and Propst (2004), where they highlighted the fact that worry, fear and anxiety did not stem solely from the aspect of work and its environment but from financial issues, where educational debts may be still outstanding (Casey et al 2004).   The respondents in this research mentioned finance or lack thereof. As students, they were expected to complete PPP without payment and they reported that this was a particularly stressful issue:

"It was unpaid. Would have liked a small payment as you were working ten weeks for free!" (P1:F10).

"I was unpaid that is the only downfall" (P1:H3).

Some respondents felt that the time period was not to their liking as they were under pressure due to their financial constraints.

"When I was doing my placement, it was far too long for no pay" (P1:P10).

4.5.4   Finding Suitable Placement

The graduates noted that financial challenges influenced their decision to find a suitable placement near their home so as to avoid incurring travel costs. Finding PPP as near to home as possible was another challenge for the student, (Keating 2003; Cunningham 2010; Little and Harvey 2006), bearing in mind that transportation would be needed, and payment would not be secured during this time:

"That I would not get placement close to home" (P1:L4).

"Finding placement was hard" (P3:O11).

"For me my biggest challenge was where I am from…………… the closest dentist is an hour away, so I had to travel an hour" (P3:N11).

4.5.5   Deduction

It is without doubt, that external challenges had existed in the lives of the DN graduates while attending AIT. However, it was the way the DN students dealt with these challenges that determined their progression through the programme.

4.6   Conclusion

The findings in this chapter reflected the lived experiences of the dental nursing graduates as reported by them. As mentioned throughout this chapter, the themes derived from this study had indicated, as research would suggest, that PPP is an important element in any academic programme. The perceptions obtained gave a valuable and deep narrative drawn from the graduates' reflections on their experiences as student dental nurses. However, it is in those reflections that a deeper awareness became visible, as the experiences of the graduates as students were recalled and verified. The themes extracted from the findings have been further explored in Chapter 5. Overlapping of themes occurred on many occasions, but this further highlighted and confirmed the experiences, views and perceptions of all the graduates who took part in this research. The topics were divided under four main themes, the significance of each is discussed in more detail in the following chapter.

CHAPTER 5:   Discussion

5.1   Introduction

The aim of this chapter is to analyse and discuss the findings from the previous chapter and to offer recommendations based on the findings for the study. As discussed, the study used the Interpretive Phenomenological Analysis (IPA) approach to develop themes and ideas.

As with all studies of this type, the need to answer the research question(s) posed is of critical importance. In this instance the process of answering these question(s) saw the researcher seeking to link the findings from her study with existing literature in order to generate a new understanding of the value of PPP in a dental nursing setting. There is also a desire to evaluate the role of PPP – exploring advantages and disadvantages as flagged by participants and comparing these to the extensive literature consulted and referenced in previous chapters. Interestingly there were comparatively few disadvantages identified. As such it can be said that this report broadly agrees with the existing literature, but also seeks to develop issues relating to the positive and negative nature of the PPP experience.

It is envisaged that findings from this research will contribute to the literature relating to the broad field of PPP and inform policy and practice at a local and national level. In addition, it will also seek to provide research based insights to staff, students and employers who have an interest in understanding PPP within an academic programme context.

5.2   Purpose of the Research - A Reminder!

This research began with the researcher's interest in PPP specifically in the area of dental nursing. In the course of her career as lecturer and PPP coordinator of the dental nursing programmes in AIT, she has explored the views, experiences and understandings of students on these programmes for many years. She recognised that while the student voice was valuable, there was an untapped

source of information and experience relating to PPP within the graduate body of AIT dental nursing programmes and she sought to engage with this. As a result of this the researcher had the privileged position of being able to engage and reconnect with graduates from years past. It was invigorating to hear their stories, capture their views and acknowledge their understandings. In addition, she recognised the importance of engaging with the wider dental community and she worked closely with a number of dentists who provided PPP opportunities to DN students. This chapter reflects on the information obtained from the graduates and the participating dentists, highlighting their views and experiences with a view to drawing out some points of wider interest.

5.3   Research Question – A Reminder!

The purpose of this research is to explore *'The value of Professional Practice Placement'* (PPP). To achieve this, it was necessary to obtain the *'views, experiences and perceptions of dental nursing graduates'* through reflective examination of the benefits and challenges faced by the graduates and investigate if, in their opinion, PPP is an effective and appropriate learning tool in preparation for employment as a dental nurse. *'The value of PPP'* as recognised by the graduates, will become more obvious because as this chapter unfolds *'value'* and *'learning'* will clearly be seen as the cornerstones which support the ethos of PPP.

Overwhelmingly, the answers received from graduates were positive towards the value of the inclusion of PPP on an academic programme. Some graduates claimed that PPP is an excellent way of giving great insight (P3:L6), while others said that PPP is a necessity for all academic programmes (P3:B6). One graduate declared that PPP allowed them the opportunity to practice their skills (P3:C6), while others identified the value of PPP as being a process that involved "G*etting you on the ladder. Course wouldn't work without it"* (P3:K6). Consequently, it is argued that the views, insights and comments received throughout this study have demonstrated the extensive value that the graduates and other stakeholders placed on PPP as part of their academic programme.

In order to gain a better understanding of the value of PPP it is necessary to address the following five key thematic areas that emerged from the Findings Chapter, and the researcher will seek to ascribe meaning and value to each of the following themes in the context of this study. The five thematic areas are:

1. Learning
2. Benefits
3. Personality and Characteristics
4. Teaching and Learning
5. Challenges

5.4 Learning

5.4.1 Introduction

In this study the participating graduates identified learning as one of the most compelling benefits of PPP. While it might have been anticipated that students always learned when completing an academic programme (Schuller, Preston, Hammond, Brassett-Grundy and Bynner 2004), it is unfortunate that evidence of learning is not always clear (Duignan 2002). Learning in this study played a significant role, not just in the acquisition of knowledge and skills but it is considered to be the thread that ran through each of the identified themes.

As we saw in Chapter 2 it is difficult to come up with a precise definition for learning. However, from the overview of the literature it is clear that there were many influences on what, and perhaps more importantly, how we learn (Darling Hammond, Austin, Orcutt and Rosso 2001). Learning, it would appear, is not just the process of engaging with knowledge, skills and attitudes imparted from teacher to student, it is influenced by experiences of life, the guidance of teachers and mentors, the workplace, critical self-reflection and the environment.

5.4.2 The Role of Learning in the PPP Experience

This study shows that learning had a strong and positive significance in relation to PPP. It is the central core element of the dental nursing programme. Evidence emerged in the study where all graduates reported that PPP is an essential for:

- learning the practicalities
- obtaining new skills and
- instilling a desire for personal and professional development

PPP, in the view of the participants, enabled the successful transition from graduate to employee. The researcher found the graduates' answers relating to PPP to be passionate and appreciative of their experience, elaborating on their learning new skills and abilities.

Learning is the key to achieving one's full potential. It underpins the concept of preparation for employment and provides a lens into how graduates view their experiences of PPP. Furthermore, the graduates' responses would seem to provide clear support for Kolb's assertion that learning is the 'P*rocess whereby knowledge is created through the transformation of experience'* (Kolb 1984, p41).

The participating dentists seem to have come to much the same position and believed that learning or the acquisition of knowledge and experience, took place when students were on PPP. They suggested that a work placement element illuminated the real-world of clinical dentistry for dental nurses, a world that varied between dental practices (P4:V10). However, some dentists suggested that it is during this experience, that preparation is established for the transition to real-life dental nursing (P4:X10).

The DN graduates agreed with the dentists' statements regarding the learning experiences and linking theory to practice. Graduates claimed that they obtained better awareness and understanding of what the work entailed, an all-encompassing and connecting of the career that is dental nursing (P2:G5).

For the graduates, the process of engaging in this research allowed them to reflect on their PPP experience. It is through reflection that the researcher believes the true meaning behind their experiences became apparent and visible not only to the researcher but to themselves.   As they reflected on and defined their experiences, it is clearly evident from the findings that the broad theme of learning is the link that ran through every benefit outlined. The learning that takes place is of critical importance and benefit to the dental nursing programme. This broad theme of learning is enabled by the combination of classroom knowledge and PPP.

5.4.3   Combination of Classroom Learning and PPP

John Dewey (1859-1952) suggested that education should be instilled in real-world practical experiences, suggesting that learning took place by engaging in continuous meditative study and revision, therefore bridging the gap between

theory learned in the classroom and the practical skills required for the workplace (Tucker 2006). This understanding of the symbiotic relationship between theoretical engagement and practical experience underpins much of the research published on PPP and other forms of work placement and is a key element of this study. When discussing the issue, Meekel and Jenkins (2013) argued that *'The value of the placement is the experience itself, providing the student with an experiential learning experience as a direct result of the student's active participation in the process'* (p1)*.*

Graduates who responded to this research were explicit in their recognition of the importance of combining classroom learning and PPP in order to emerge as a competent and confident Dental Nurse. They had an awareness of the theory learnt in the classroom but were very mindful of the accompanying benefits of the practical hands-on experience received from PPP. They suggested that these benefits included working within a team, experiencing the day to day running of a busy practice, developing a good telephone manner and learning to speak and deal with patients, (P1:D5). Graduates acknowledged the role of PPP in developing the skills required and the confidence needed to be a good dental nurse (P1:X5). They were cognizant and appreciative of their time spent in college prior to PPP. In particular, they recognised the importance of the learning undertaken in the classroom (P3:C5), exploring as it did areas such as the foundations of theory and having the opportunity to combine that with the reality of experiencing the different styles and techniques of professional knowledge and practice encountered while on PPP (P1:H5).

Throughout this research it is evident that the graduates were very aware of the learning achieved and saw it as having a significant impact on the links formed between the classroom and PPP experience. The formation of these links can only be achieved if the student also recognises the importance of attendance to all classes. The combination of both learning environments gives students the opportunity to gain a strong theoretical basis, specific dental nursing clinical skills and to engage in a comprehensive professional preparation process. For some, the value of PPP became clear when they left the classroom and found themselves placed in a busy dental practice. The value of PPP is further outlined

by the graduates as they recognised the benefits obtained from the PPP experience.

5.4.4 Deduction

The issue of learning was a critically important one for the DN graduates and one that emerges strongly from the findings. There was a sense that while it was hard for the graduates to identify how they learned, they were very confident in stating what they learned. They clearly valued the theoretical knowledge base that was provided in the formal classroom environment, but they also saw the central importance of applying this knowledge in a professional practice setting. Finally, they also enjoyed the process of thinking about – or reflecting – on the various experiences and saw this as being at the heart of their learning experience. This process of combining theory, practice and reflection links with the broad literature on learning and learning styles that draws on the work of Dewey and links with the andragogical theories of Knowles. In the same way it underpins many of the more recent pedagogical studies which emphasise the importance of linking theory and practice in a meaningful way in order to ensure genuine and lifelong learning.

5.5   Benefits

5.5.1   Introduction

As we have seen in the previous chapter the benefits of PPP were very evident in this study and resonate with current literature. PPP proved to be a worthwhile and valuable component of the dental nursing programme, with graduates and dentists both acknowledging the benefits gained by its inclusion on an academic programme (Bukaliya 2012; Gelman 2011; Sheridan and Linehan 2011; Young, et al 2006).

In their contributions the graduates referred to the original research question regarding the value and effectiveness of PPP. Their responses demonstrated the benefits from their perspective, elaborating on their learning, development of skills and professional preparation through the classroom experience (Meekel and Jenkins 2013; Meakin 2010; Blackwell et al 2001; Harvey et al 1997). For almost all who took part, they not only gained confidence and experience but perhaps most importantly employment (O'Leary 2016; Saunders and Zuzel 2015; Baharun, et al. 2012; Gomez, et al. 2004).

5.5.2   Professional Preparation

From the graduates' perspective, PPP acquired a range of developments, positive impacts and better understanding of their future career. One key aspect identified was the role it played in preparing them for the real-world of the Dental practice. This professional preparation was invaluable. The literature review found that there was a strong sense that the professional preparation was based on a process of significant personal and professional growth and development of the self (Blackwell et al 2001; Harvey et al 1997). One respondent summarised this by stating that the PPP experience resulted in her coming *'out of my shell in the workplace'* (P1:AE5). It was experiences such as these that the graduates found invaluable (P1:E5). They recognised in themselves the practical essentials of being able to deal with patients, who may be angry, elderly or nervous (P1:AE5).

Throughout this research the graduates highlighted the day-to-day activities which lead to them learning and obtaining new knowledge in preparation for the working world. This concurred with Dewey (1938) who suggested that we should prepare ourselves for the real-world, creating the desire for richer, and more meaningful experiences, as every experience we have will influence another future experience. Hickman et al (2009) noted that professional preparation required interaction, reflection and experience, while maintaining an interest in equality and fairness, combined with a conscious awareness of the community which surrounds us (Dewey 1938). The sentiments expressed by the graduates as they reflected on learning, professional preparation and the benefits achieved from the hands-on experiences within a busy dental practice, echoed the literature. The findings from this research showed that both graduate and dentist were very aware of the personal, practical and professional preparation and experiences obtained through PPP. They acknowledged that professional preparation instilled knowledge, confidence and ability, not just with clinical skills but with soft skills thus having the capability of dealing with patients with varying degrees of concerns (P1:Q5) (P4:V9).

5.5.3   Development of Clinical and Soft Skills

PPP offers students the opportunities to learn new skills, while engaging in real-life situations. This is evident from the research. Meakin (2010), Blackwell et al (2001) and Harvey et al (1997) concur, suggesting that students enhanced their knowledge and learning while developing new skills and capabilities whilst on PPP. As we have seen in this study, the participating dentists reiterated the sentiments of both the graduates and the theorists with regard to the benefits of practical, hands-on experience, stating that on-the-job practical experience is vital for learning, making sense of, and linking that which is learned in the classroom (P4:I6) (P4:O6) (P4:T6).

Interestingly, when discussing the type of skills developed during the PPP experience, the dentists spoke more about soft skills than clinical skills. Soft skills were identified as the ability to work in teams, to engage with patients, to deal with other members of staff, to offer reassurance when needed and to help

generate a positive working environment. The responses of the dentists could be taken as a confirmation that possession of soft skills is of equal importance as clinical skills. When the dentists were asked if clinical skills should be the main focus for the student on placement, they responded as follows: *"If possible, they should develop both clinical and reception/soft skills"* (P4:U4) (P4:N4). The participating dentists suggested that soft skills were extremely important (P4:L4). They can never be taught (P4:M7) but can be developed in time (P4:Q4). In their opinion clinical skills can be taught and picked up quickly (P4:U4) but dentists felt that no matter how good a nurse is clinically, if she lacked empathy, enthusiasm, humour and genuine love of what she does, then she would never be a great nurse (P4:R7). Therefore, they were appearing to suggest that a dental nurse needed to have both types of skills. There was, however and interesting caveat with some dentists suggesting that (P4:N4) (P4:L4) soft skills are either something you have, or you haven't (P4:W7) (P4: AB7). This is an interesting point and one that has significant implications for programme designers. From the researcher's perspective, the ability to develop soft skills is something that can be built into a programme. However, there are challenges in finding ways to measure them, and this might be the essence of the dentists' point.

In summary therefore, it might be said that clinical skills are easy to measure, while soft skills are more difficult to assess, but do become evident in time. The development of soft skills is the combination of body and mind according to Nitonde (2014) who listed 75 necessary soft skills. He maintained that '*the aim of soft skills development is to develop the human personality in a holistic sense so as to make beings more socially refined'* (p8-9). The literature review highlighted a number of articles from Baharum et al (2012), Mac Craith (2017), O'Leary (2016), and Keogh (2016) who suggests that soft skills can be a person's attitude to their job, their work ethic, how they interact with others, how they solve problems and how well they resolve conflict. She proposes that simple things like making eye contact, expressing empathy, exhibiting emotional intelligence and showing old-fashioned courtesy offering a firm handshake and taking time to communicate face-to-face seem to be inconsequential trifles (Keogh 2016). The attributes which Keogh spoke about in her article were exactly what employers want (O'Brien 2017) and were confirmed by the dentists participating in this

research. Soft skills and characteristics are interwoven into one's personality and will be discussed in more detail in later.

5.5.4   Confidence Obtained and Overall Experience of PPP

The value of PPP is recognised by the graduates when as students, they became more aware of their growing confidence (P1:X5). This saw them doing such things as *identifying, learning and (developing) familiarity with instruments, charts and techniques* (P1:AA5) (P1:T6).   Graduates today are under a lot of pressure to obtain knowledge and have developed a wide range of qualities and attributes (O'Brien 2017). As educators, instilling such qualities and attributes in our graduates as they leave third level education has been identified as important. Confidence could be a soft skill, linked with the previous section. However, the researcher felt it needed to be included in a discussion of benefits because it is the graduates themselves who highlighted confidence as a key and discrete benefit.

This study showed that graduates recognised their growing confidence as being a central part of their overall experience, this confirms with the literature review. (Chen et al 2011; Knowles et al 2011; Clancey 1995). They identified the role of staff both within AIT and on PPP as being an important element of their growing confidence. It is interesting to note that for many, the development of confidence happened in stages and was based on both experience and reflection on that experience (P1:E5). For many, the period prior to their first PPP was one of anxiety and stress. This is perhaps understandable and as we will see later in the chapter the role of stress as a negative indicator emerges from the findings as well. The work of Casey et al (2004) and Gelman (2011) explored the role of stress and its long-term impact on students. While disagreeing on the practical impacts, they do agree on the reality of stress and negative emotion on PPP students.   The graduates' responses suggested that the stress felt prior to commencing PPP might best be identified as anticipatory nerves which passes to a more positive outlook as the PPP proceeded. Complete confidence and readiness prior to placement therefore may exist for some students but may not have existed for others. The key transition for most was the development of their

own professional identity which in turn resulted in their increasing confidence in both themselves and their role.

One of the more interesting findings relating to confidence referred to where the PPP took place. A number of graduates suggested that the PPP had a lot to do with development of a sense of confidence and security (Chen et al 2011; Knowles et al 2011; Clancey 1995). For example, one graduate suggested that she was very lucky with her placement as her dentist was a good teacher, who was willing to impart knowledge on all aspects of the job (P1:U5).   This is significant for the programme team in general and for the researcher in particular. She recognised that while every effort is made, it was impossible to hand pick suitable placement locations for each student.

A conflict of personalities may not always be evident until placement has commenced.   The process of managing this and evaluating placements is therefore important and something that needs to be continually monitored. For perhaps the majority, that were lucky enough to be paired with a like-minded practice, they acknowledged the changes and developments in themselves, the building of confidence and the significant value that PPP had on their learning and the benefits obtained from their journey. This approval and recognition of PPP is very evident throughout this study and may in some cases stem from a mature outlook.

5.5.5   Employment Opportunities

There was a general finding that the inclusion of PPP in an academic programme is beneficial to the students and the employer. In many cases PPP led to employment, which is of value to both the graduate and the employer.   The Graduate Market (2016) published that *32% employee positions (2016) would be filled by graduates who have already worked for companies, either through paid internships, industrial placements or vacation work'* (The Graduate Market 2016, p18).

During PPP, students had the benefit of engaging with and making contacts with other professionals within their chosen career to build and draw upon for advice

and guidance in the future. Dentists and employers in general were looking for well-rounded and flexible employees. PPP gave employers an *'Opportunity to try out a potential employee before making a formal job offer to the individual'* (Laker 2005, p64).   DCU President Professor Brian MacCraith, in an Irish Times interview, claimed that identifying the best prospective employee, who has new ideas and up-to date skills, *'Who can solve problems, lead teams, be innovative and build relationships. Employees who are creative thinkers, problem solvers, emotionally intelligent, digitally literate and adaptable for the world of ever-increasing change'* (O'Brien 2017 p1) is a critically important part of any placement period. For dentists and employers in general, to find the 'right employee', participation in PPP offers a way to assess individuals in real-life*. 'Many employers also consider that recruiting candidates who have proven their abilities during a work placement to be a more reliable way of employing graduates'* (The Graduate Market 2017, p21). Proof of abilities and development of personal and professional qualities is something the graduates were very aware of.

Did PPP prepare graduates for employment? Twenty-one out of twenty-two dentists claimed it did. They argued that the PPP experience gave students insights into the running of a busy dental practice, in particular suggesting that it promoted the importance of communication with both staff and patients (P4:S10). Dentists argued that the only way for a student to truly learn is to become immersed in the work of a dental practice (P4: R6). The PPP process not only trained students but prepared them for their future career (P4:T10). The graduates concurred with the dentists, maintaining that they gained not only valuable experience but a reference which outlined the skills achieved. This afforded the opportunity to obtain summer or part-time work, leading to possible employment (P3:E7). This is something which they maintained would never have been possible without the PPP element as part of the dental nursing academic programme (P3:D7) (P3:F7).

The respondents further agreed with the REAP report (2012) when it stated that, *'Many third-level institutes worldwide, regard the PPP experience for undergraduates, as a key contributor to high academic standards and to the*

employability of their graduates' (Sheridan and Linehan 2012, p18). Irish policy has suggested that the value of the PPP module is an important element in most degree programmes, suggesting that completing such an element allowed the student to gain first-hand experience of the working world which, amongst other benefits, potentially provided a platform to impress a future employer (HEA 2016; Cunningham 2001).

Young, Wright, Stein (2006) suggested that if the students were aware of the benefits of PPP and the afore mentioned stress and challenges are overcome, then there is real potential for learning, progressing and achieving valuable experience in a PPP environment (Young, Wright, Stein 2006).   This echoes Iashkov (2012) who concluded that employers who took students on placement, gave very high ratings to graduates, describing them as being '*purposeful, competent and knowledgeable in computer skills and technology'*. It also confirmed that graduates *'had good theoretical training with a desire to change or upgrade their qualifications'* (Iashkov 2012, p65). Data generated from this study showed and confirmed that Iashkov's comments were accurate. Graduates also affirmed that once they settled into PPP and their confidence had grown, they became more proficient in, not only the practical clinical side of dental nursing but the reception duties, dealing with patients and working in a team environment. Predicted made by the Graduate Market claimed that '*32% of this year's positions (2016) are expected to be filled by graduates who have already worked for companies, either through paid internships, industrial placements or vacation work'* (The Graduate Market 2016, p18). This validation answers the research question when asked how effective and valuable the graduates felt PPP is as a learning tool and as a preparation for employment?

As part of this research study, during the one-to-one interview, the fifteen graduates were asked about their current employment status. All graduates were employed at the time of interview. Twelve of the graduates were employed as dental nurses, while three furthered their education to become a dental hygienist, and two orthodontic therapists.

Two of the graduates spoke about their travels, highly recommending dental nursing as a career choice for travelling (P3:B21). The graduates claimed that in Australia, the Irish dental nurse is well recognised and much sought after and seen to be the best trained (P3:J19) (P3:B20). It was noted from the comments received that some dentists only wanted to employ Irish nurses and were willing to pay any money to keep them in their practice (P3:J21) (P3:J20). The graduates commented on the incentives and bonuses available to them and the additional pay if they worked past their finishing time (P3:B19).

5.5.6   Deduction

The benefits students received from PPP were well documented, both by the participating graduates and current literature in this study. In this section the researcher wanted to answer the research question and explore the value of PPP. This study demonstrated that several distinct benefits were clearly evident. PPP has proven to be a valuable and an effective learning tool. The participating graduates, through their views and comments, portrayed the PPP experience as being of enormous benefit to their learning, development and overall experience of the dental nursing programme.

Speaking to the graduates and reading their comments, a realisation became evident to the researcher that the benefits obtained from PPP were enormous. The research question asked if PPP prepared graduates for employment. Graduates acknowledged the benefits and learning that was achieved from the PPP experiences, which provided them with the opportunity to work as part of a team, with professionals within their chosen career, thereby giving them the required experience and knowledge to obtain employment.

5.6   Personality and Characteristics

5.6.1   Introduction

The research question in this study queries the value of PPP. The data obtained from the participating graduates would suggest that the development of personality and characteristics are important elements in revealing the value of PPP. While the soft skills identified earlier are in some way related to personality and characteristics, there is sufficient difference to warrant a separate discussion of these elements.

5.6.2   Personality and Characteristics

Personality and characteristics were mentioned earlier in this chapter, where both were used to describe someone's actions or behaviours. While technically it is possible to argue that the two portray very different aspects of human life, in some cases they are spoken about interchangeably. Personality is defined as something we are born with, while characteristics are learned behaviours, progressively developed from observation and interaction with our environment (Patterson et al 2009). Nitonde (2014) argues that these characteristics are intrinsically linked to personality because it is these skills that define us as individuals.

During the study, the respondents identified several characteristics that they felt they possessed and which, in their opinion, were useful for their career as dental nurses. The interest in personal characteristics seemed to develop over the course of the graduates' reflection on PPP and it is possible to argue that they became more aware of their own characteristics and abilities once they commenced PPP.

In addition, the graduates highlighted the fact that personality had a significant impact on their development in dental nursing. Some graduates stated that because this is the career they chose for themselves, they knew they just had to *'get stuck in'* (P3:J14), and deal with each issue as it arose (P3:C14). They felt

that their personality (P3:B13) and confidence (P3:B14) and possible maturity (P3:D14) had a lot to do with their learning and *'getting on with it'*, especially regarding additional jobs that were not directly part of their dental nursing job description. These everyday additional jobs that go on behind the scenes and the care and attention required to keep and maintain a busy practice are equally as important as the care and attention to oneself. Dental nursing is not just about the work that takes place chairside, it's about the people you work with and the patients you meet. For that reason, a strong personality, it would seem might be a necessity (Afshar et al 2015). The graduates noted their own personality, characteristics and soft skills such as confidence and attitude, which they believed to be important in order to work in a busy dental practice. Their up-bringing, the undertaking of jobs at home and the responsibility of working part-time, led them to embrace the *'additional jobs'* rather than reject them. This resonates with Nitonde (2014) who maintained that personality *'reflects the influence of parents, peers, friends and teachers'* (p9).

Vaughan (2008) and Kolb (1984) also agree with this general point, stating that learning in any environment requires an acknowledgement and reflection of one's background, age, education, prior learning, attitude and willingness towards learning and progression. It is this attitude that graduates felt was necessary to progress. This series of reflections on the role of attitude also resonates with Bandura's (1977) social learning theory. Here he claimed that *'most human behaviour is learned observationally through modelling: from observing others, one forms an idea of how new behaviours are performed, and on later occasions this coded information serves as a guide for action'* (p22). From the perspective of PPP, the observation of the work in a dental practice clearly gave the graduates the opportunity to engage with and reflect on the characteristics and personality traits that lent themselves to the successful completion of the dental nursing job. Of the many characteristics that were identified, those relating to care of self and others, general attitude, age and communications ability along with more general attributes, will now be discussed.

5.6.3   Care/Caring for People

One of the key characteristics identified by respondents was that of care or caring for others and the presence of this was seen as a key indicator of their interest in the career of dental nursing. This interest led to a more general interest in the caring professions and in nursing as a career. Interestingly for some, the completion of Transition Year (TY) programme (P1:K2) in the broad care field led to an interest in nursing and care giving. Others confirmed that initially they had wanted to do general nursing (P1:D2) but didn't get sufficient points in their Leaving Certificate. For another it was a plan B option (P1:AA2).

Care was difficult to define as care in the eyes of one patient, may be very different in the eyes of another. Bramble, and Matiti (2014) cite one definition by Chochinov (2007) which they felt best described care …*'A deep awareness of the suffering of another, coupled with the wish to relieve it'* (p186). Those with an in-built caring nature it would seem, were drawn to these types of nursing professions (LaRowe 2007), although still aware of the need for qualifications. The Bramble and Matiti (2014) study posed a series of insights that are relevant to this study. They, for example, identified the reality that has seen the development of a highly technically sophisticated healthcare system, which seems, at the same time, to be losing the core characteristics of care and compassion. This is seen as a particular concern as they view the caring aspect as being an integral part of nursing care. They went on to suggest that an increased focus on care and compassion was not only a priority, but an essential part of education and training.

It is evident from the respondents that the opportunity to work with, and care for people (P1:G2) justified their decision to become a dental nurse. While for some, it was a second choice, the word *'nursing'* was the predominant term used to describe their love for a job that involved the care of people (P1:Y2). This is interesting because in times past general nursing would often have been described as a 'vocation'. Today, dental nursing falls into that same category, featuring skills, aptitudes and most importantly the practice of care (P1:T2) required to be a good dental nurse. This sense of vocation or calling, possibly

stemmed from the graduates' own personal experiences of dental care, no doubt remembering the pain of procedures, but also the care and support shown to them by clinical staff. It might be worth noting that the Haurant (2004) featured an online article in The Guardian, claiming that vocational workers in a caring profession were the happiest, most content and most satisfied workers, fulfilling an ambition where they felt they were rewarded, valued and appreciated. The researcher felt that the new graduates of the dental nursing programme were lucky to have an intuitive awareness of their destiny. Unfortunately for some this intuition and insight might not have been so obvious.

5.6.3.1 Personal Experiences – Recognition of Care Qualities

As mentioned above, a number of the participating graduates spoke of a time when they themselves were patients of a dental practice and reflected on the impact that this had on them. In summary, the engagement in the PPP process confirmed for them, what they had self-identified previously, that they had the personality, traits and possible characteristics required to be a dental nurse. It is at this time, when as a patient the graduate remembered their own experience, witnessing the care and attention they received from the dental staff and the realisation that this may be the career suitable for them (P1:W2) (P3:D6) (P1:W2). While this experience of care and attention might only have been a fleeting moment in time, it obviously established a recognition of the centrality of compassion and care.

The findings showed that, while the acknowledgement of care is important, so too is the importance of obtaining a qualification. One respondent worked in a dental practice initially as an assistant but realised that without qualifications, progression might never be an option (P1:AB2). Dentists agreed that dental nurses needed to be qualified in clinical skills, but it is as vital, if not more important, (P4:P4) for them to have a helpful and caring approach when working with patients (P4:S4).

LaRowe, (2007) found that the care within us, to help others, is part of our personality and that '*There is not another profession where highly trained and*

qualified people are routinely challenged with large caseloads and expectations to produce results at a pay that may not be equal with the task' (p1). Thus, the challenge to be caring is made even more complex by the working reality of the busy dental practice coupled with increased demands to be highly academically qualified. This combination of demands places a strain on the dental nurse and the addressing of it is a challenge that will be explored later in the chapter.

5.6.4 Attitude

While knowledge and aptitude may give you access to a job, graduates felt that attitude was a key part of keeping a job and doing it well. The value of PPP allowed them to recognise and experience the potential role of a positive attitude in maintaining a successful career in dental nursing. Oroujlou and Vahedi (2011) reported that '*motivation and attitude provide primary impetus to initiate learning and later is the driving force to sustain the long and often tedious learning process'* (p993).

Attitude, enthusiasm and possibly initiative can all have a positive impact on the person, the job and the career, but where it was most important was how it benefited and made the patients feel (P3:E3). As mentioned in the findings and highlighted later in this section, students are often older when they decide to return to third level education and this additional life experience could possibly be more beneficial when it came to an awareness of one's personality, attitude and attributes (P3:D8) (P3:D9). On the other hand, a positive attitude might have nothing to do with age but more to do with upbringing. Some of the participating graduates mentioned that as children they were used to doing chores at home and as they got older they got weekend and summer jobs in shops. This type of upbringing might also have a positive influence on attitude and attributes (P1: D4) (P3:C14). A positive attitude should be a rule and not an exception because those qualities and mind-set, build and maintains attributes (Oroujlou and Vahedi 2011).

5.6.5   Attributes

As part of the study, reported in the findings, the participating dentists were asked to provide a set of identifiable attributes, which they felt were necessary for a dental nurse. They mentioned attributes such as those mentioned previously in the benefits section: learning, confidence and communication, (P4:R9) an ability to cope with a busy stressful situation and the skill to deal carefully and confidently with different patients' (P4:V9). Soft skills such as friendliness, professionalism and confidence were important attributes to fuse with clinical skills' (P4:X9). They commented on the importance of being a good team worker, being reliable, and having good mannerisms' (P4:Q9). Dentists confirmed that anybody going into dental nursing or dealing with the public needs to have a nice manner, everything else can be taught' (P4:J5), but they also needed the opportunity to practice in live situations to gain confidence (P4:U5).

From the employer's perspective, they want graduates who were not only clinically skilled but possessed additional characteristics and attributes such as emotional intelligence, creative thinking, and being a problem-solving team player (O'Brien 2017) with a caring and compassionate manner, naming a few from Nitonde's (2014) list of soft skills. Bramble, and Matiti (2014), suggested that in order to achieve, build on and maintain the attributes required for patient care, we need to ensure we have strong role models as mentors, - dentists, dental nurses, lecturing staff and others who must lead by example. Saunders and Zuzel (2015) agreed that graduates with the above-named characteristics, skills and attributes were *'more likely to gain employment and be successful in their chosen career, benefiting themselves, the workforce, the community and the economy'* (Saunders and Zuzel 2015, p1). Cranmer made a similar statement in 2007. She reported that while personal qualities greatly enhance graduates' employability, the place to develop them should be in the workplace and not the classroom. She went on to say that PPP combined with employer involvement were found to positively affect graduate prospects for employment, which in turn supported them in their transition from graduate to employee (Cranmer 2007).

5.6.6   Age

The dental nursing programmes in AIT are open to and facilitate all ages. Age is not a requirement for this study but was highlighted by some respondents.   It became very apparent to the researcher as she read and re-read the graduates statements, that some were identifiably 'mature students' (over 23 years). The graduates noted that their confidence and maturity contributed to their apparently heightened ability to question, comprehend and link learning. The additional life experience and reflective capacity, combined with a more developed sense of self, might be said to contribute to the overall quality of the student engagement with PPP. Indeed, the older students seemed to confirm this in their reflection on the programme, both implicitly and explicitly.

Knowles' (1980) Theory of Andragogy, identifies the characteristics of an adult learner such as independence, initiative and a willingness to grow and develop one's own learning. He concluded *'that the use* of andragogical and pedagogical *principles should be determined by the situation and not by the age of the learner'* (Knowles 1980, p43; Knowles et al 2011). The findings highlighted the fact that some respondents felt their age might have helped with the way they handled themselves and the PPP process. Graduates spoke about having an open mind with an attitude and willingness to use their own initiative and to apply themselves well (P3:D9). They appreciated and felt lucky to be able to go on placement (P3:E3) but they also knew that their age gave them the confidence to be less worried and have a better attitude (P3:D9) towards their experiences. These were the fifteen out of thirty-seven participating graduates (41%) highlighted in the findings chapter, who claimed they had no worries or fears at all.

Maturity in some instances comes with age. The mature student brings with them life experiences, organisational skills and an ability to put things into perspective. A mature student can be focused, organised and motivated, all of which can have a positive effect on their learning and progression through academic life. It is worth noting, however, that it is not always the case that maturity comes with age and indeed this study demonstrates that many of the attributes associated with mature engagement, emerged during and because of, the PPP experience.

5.6.7   Communication Development

'People have different personalities and just because someone says little, doesn't mean they are less engaged. They may be the reflective type who doesn't share their thoughts until they've had time to think'. Prof Patrick Flood, co-director of the Leadership and Talent Institute at DCU, speaking with Olive Keogh, Irish Times (2016) suggested that education institutes need to equip graduates with more than just hard skills. He claimed that '*Graduates needed to have experience of working in teams and recognise the importance of communication and relating well to others in the workplace'.*

One graduate, considering the importance of communication, felt that it was needed between all parties, the student, the practice and the educational institute (P3:B10). The dentists also mentioned communication, stating that good communication was a necessary skill regarding team work and confidence (P4:J9) (P4:R9). One dentist felt that communication leads to preparedness, with an ability to anticipate instrument recognition, infection control and suction. Additionally, telephone and face-to-face communication skills were also identified as important (P4:T9).

The value of PPP is that it had allowed the students to develop a confidence and build on their abilities. This in turn led to a development of their communication skills, and undoubtedly the next step obtaining employment. The dentists who responded to this research gave details of how PPP is valuable in the preparation of students for future employment.   It is widely understood that a patient's perceptions of the quality of health care experience, is largely dependent on who they meet, how they are spoken and listened to, and the quality of the health care provided (Clarke 2003). Communication is important for all health care practices and it is a characteristic skill that should not be overlooked.

5.6.8   Deduction

The concept of personal characteristics is not the same as personality where a person might be described as funny, energetic or lazy. Personal characteristics

are traits or soft skills such as empathy, kindness or honesty which may not be initially obvious but can be revealed and developed because of life experiences. Personal characteristics were not specifically mentioned in the research question but were highlighted by the graduates. During the PPP experience, personal characteristics were illuminated as students became mindfully aware of the characteristics they possessed and developed. As individuals we all possess a unique set of personal characteristics, some of which may not initially be obvious.

Professor Don Barry President, University of Limerick (2016) outlined in his message that UL *'believe in the importance of helping students to work positively with others, to operate in challenging and changing environments, to develop the skills to articulate their ideas and perspectives, and to enlist the courage it often takes to make a real difference in the world'* (University of Limerick, p5).

In the context of this study, the identification by graduates of an emerging understanding of personality and characteristics as critically important aspects of a successful PPP experience, resonated with the researcher and provided a key statement as to the value of PPP. Simply put, PPP allowed students understand that the *'who'* of the dental nurse is as important in many ways as the *'what'* of their academic knowledge.

5.7   Teaching and Learning Experience

5.7.1   Introduction

As mentioned previously *'learning'* ran through each of the themes outlined in this chapter. In this instance the value of PPP is that it gave the student dental nurses a set of teaching and learning experiences, with the combination of classroom learning and PPP, which benefited them.

The teaching and learning aspect of PPP is not something initially identified as a core part of the research. However, as the findings emerged, it was noted that the graduates spoke fondly about both their time spent in college and in PPP. They also identified the importance of the sense of security that was provided from knowing that support was available to them at all times. It is to this that we will now turn.

5.7.2   Support

Graduates mentioned the help, support and guidance they received from AIT staff (P3:I10) and the staff within the participating practice. They remembered with fondness the support of their class mates, how they were treated as a student, how practice staff helped (P3:O10) and guided them to learn (P3:H10), and how lucky they felt to have extensive practical teaching on-site in AIT (P3:F10).

For the student dental nursing attaining the H.C., PPP was completed every Friday. On their return to class the following Monday, students were given the opportunity to have an informal discussion/chat about the placement experience (P3:E10) with lecturing staff and peers. The participating graduates acknowledged the importance of this discussion and sharing process. They felt that it allowed them to identify the support, trust and friendship of their classmates and highlighted how being part of a small class allowed them to become friends with everyone, helping and supporting one another during the PPP process. They noted and were very aware of the support and guidance provided by AIT lecturing staff and that of the dentist and practice staff (P3:D10) (P3:B10) where they

completed PPP. The involvement of outside professionals working in private practice could provide students with an extra element of realism. Additional support often came from guest lecturers, HSE, private or specialised practices who could provide additional knowledge and insight, not just into the methods and styles used within practice, but the different career prospects of dental nursing (Khan and Zhang 2017).

Yafang and Gongyong (2000) in their report suggested that a lack of support from supervisors (or others) would lead to dissatisfaction with their PPP. Vygotsky (1962) believed that the help, support and guidance, which he called scaffolding, supported the student's learning and development and provided a safe structure to cultivate, progress and improve their learning (Kozulin 2003; Wells 1999; Vygotsky 1962). He proposed that assistance should come from a lecturer, coordinator or another, such as senior dental nurse or dentists. His concept, the *'zone of proximal development',* advised that what a student had learned on their own, could be very different to what they might have learned with the aid of a teacher, supervisor and or colleague (Kozulin 2003; Darling Hammond, Austin, Orcutt and Rosso 2001).

5.7.3   Deduction

Awareness and self-confidence, successfully meeting challenges at the work-place are very dependent on the support (scaffolding) (Vygotsky 1978) provided by supervisors, mentors or colleagues. Supporting the student's learning and development, providing a safe structure to cultivate, progress and improve their learning, is of vital importance (Kozulin 2003; Wells 1999; Vygotsky 1962).

Undoubtedly, students' progress better when they know that a support system is available to them. *'The influence of a live teacher/mentor frequently serves to validate a young person's own discoveries'* (Steiner 1985, p61). While the support systems may never be used, it is the idea of knowing where to get help, if required, that created the sense of security. From the comments received, graduates highlighted and acknowledged the need and appreciation for the support available to them from AIT and practice staff.

5.8 Challenges

5.8.1 Introduction

Any learning experience will have challenges and for the graduates of the PPP process there was an awareness that their engagement as dental nursing students carried with it a number of challenges. During the PPP experience graduates came to view challenges as learning opportunities, which could allow them to explore the full reality of the life of the dental nurse.

Ultimately, they overcame any challenges but were not dismissive of their importance. The graduates defined their *'lived experience',* seeing the PPP process as having a significant value, because ultimately, they understood it allowed them to develop and progress towards their chosen career.

5.8.2 Internal Challenges

Readiness and Internal challenges were addressed by both the qualitative and quantitative data collected. The readiness of a student prior to PPP is generally viewed from the position of being clinically ready, prepared for chairside assistance and the general workings of a busy dental practice. The internal challenges identified by the graduates were broadly speaking in the areas of stress, worry and anxiety. It is to these that we will now turn.

5.8.2.1 Stress

Mathews, Simpson and Crawford (2013) identified being nervous, worried, fearful and anxious (addressed under the heading stress) as being natural emotions of a placement experience. They suggested that students, both prior to and during PPP, experienced anxieties in relation to their own abilities, the demands of a busy practice and the expectations of the management and staff (Mathews et al 2013). These internal challenges or anxieties are all very real, but as Mathews et al (2013) points out, those same challenges and feelings could also exist when one is qualified and working in practice (Mathews et al 2013).

Internal challenges were relevant and related to how the student felt initially challenged but became confident with practice. The graduates confirmed that they were very aware of choosing the best practice, one that would offer the most variety and experience (P1:L6). They commented that once shown the necessary clinical skills, they became more self-assured and confident in their ability to progress and do more within the practice (P1:M6).

When students were challenged it should not always be deemed as a negative. Stress can be a motivator where one becomes stimulated and engaged by the work undertaken and while some of that work might be challenging, it can also be enjoyable (P1:V7) leading to self-assurance and learning.

When the graduates were asked about challenges resulting from encounters with the dental staff or patients, thirteen out of fifteen claimed that they had no challenges. However, two out of fifteen felt challenges did exist, especially if working with a lot of women (P3:M11), or if they felt they were being taken advantage of by working longer hours or doing jobs others didn't want to do (P3:M14). One graduate initially thought the PPP experience might have been daunting, but on completion thought it was the best thing ever (P3:G3).

A finding of this study is that overcoming these challenges and difficulties is possible if the student is made more aware of the benefits of PPP, i.e. that there is real and great potential for learning, progressing and achieving valuable experience in a PPP environment (Young, Wright, Stein 2006).

From the researcher's perspective and the comments obtained, quite an amount of stress experienced by the students is related to anticipatory nerves. These, while natural, normally lessen with time as knowledge and skills increase. The graduates commented that nervousness and stress on commencement of PPP is natural (P1:P4) but once settled into a placement, stress diminishes and learning and enjoyment increase. (P3:E4). This is in contrast to Casey et al (2004), whose report highlighted the apprehensions felt by graduates who had transitioned to become professional general nurses. In this instance, the newly employed nurses felt that primarily their anxiety, worry and stress came from

outstanding financial issues, next to the job and the working environment (Casey et al 2004).

The fears expressed in this study were very real, but it is noteworthy that graduates highlighted issues relating to their own insecurities and abilities. It would seem that the graduates' initial views and experiences focused specifically on their own stresses, fears, worries and anxieties, which is very natural when one is about to do something different. These anticipatory nerves and worries may be something very common and expected, which happens to all of us in different ways. It may be obvious to us, or it may not. '*Stress represents a normal, necessary and unavoidable life phenomenon that can generate temporary discomfort, as well as long-term consequences*' (Afshar et al 2015, p2). It is how we deal with stress that makes us the person we are. Afshar et al (2015) suggests that the way we deal with stress had a lot to do with our personality, suggesting that these traits predicted and influenced how we cope with changing situations. This is an interesting point, because it is the graduates who brought the topic of personality types to the researcher's attention, a topic which is dealt with in more detail later. Afshar et al (2015) found that coping with stress is a self-motivated procedure which can vary over time, depending on the changes, demands and evaluation of the situation.

The findings in relation to students' readiness prior to PPP concurred with Gelman (2011) who argued '*that students by their very definition will lack knowledge, skills and abilities*' (Gelman 2011, p307). Therefore, naturally students were going to worry and be nervous about their performance, self-evaluation and progress. Gelman (2011) in her paper, proved that while challenges such as anxiety, worry and stress are very real and do exist, the students taking part in her research believed that these challenges did not hinder their learning while on placement (Gelman 2011). This too is something very apparent from the comments received from the graduates in this study (P1:N3). While the graduates were very aware of their anxiety they were also very aware of new beginnings and learning (P1:G4).

5.8.2.2 Competence

This issue of competence was highlighted, and it was claimed that what was learned in the classroom might be different to how a dentist would do it (P1:U4). Another graduate reflected on their fear of making mistakes (P3:C4) while another was anxious about her knowledge and physical competence to be a dental nurse (P1:G4).

These fears were again in relation to their knowledge and ability. The transition from the security of the AIT dental suite, to a real-life dental practice is undoubtedly a concern for the students but should be no more than that, a concern, due to progression and reform.

5.8.2.3 External Challenges

Current literature highlights challenges but these are predominately outside influences noted in this study as external challenges. The external challenges, while derived from influences outside of the graduates' control, did in some cases overlap internal challenges. Casey, Fink, Krugman and Propst (2004) mentioned previously, suggested that graduates, during the transition from student to professional, claimed that their worry, fear and anxiety did not stem solely from internal challenges but from external problems such as financial issues, where educational debts may be still outstanding (Gelman 2011, p296). The findings from this study echo Gelman's discoveries, highlighting transportation, finance and finding suitable PPP as the main causes.

5.8.2.4 Transportation

Graduates on reflection remembered they had concerns about transportation, cost implications and the fact that it could be difficult to get to a suitable PPP if they didn't drive. Some graduates spoke about the challenges of transportation to and from their assigned dental practice, relying on lifts (P3:M14) and public transportation (P3:B14) (P2:G21). Others mentioned how they travelled three

hours a day to get to AIT in order to complete their dental nursing programmes, a tedious task, in addition to daily family duties (P3:I14).

The 2016 Census outlined the increase in traffic (Byrne 2017) faced by those travelling to work, school and college. Byrne confirmed that '*the number of third level students driving to college has fallen by 8,835 to 44,771 while those who travel as a passenger has increased to 19,125 (up from 16,291 in 2011). Walking or cycling to college remains the main means of travel accounting for 59,490 students while a further 59,087 used public transport*' (Byrne 2017). Therefore, driving to college or PPP is not always an option for students, nor is the fact that dental practices may not be accessible by public transport. Transport can be a huge issue for students especially if they must rely on public transport, taxis and lifts from family and friends. The need to obtain the best possible placement where experience is at a maximum should outweigh the inconvenience of transport. Unfortunately, this inconvenience can come with a price tag.

5.8.2.5 Finance

An area of concern was the fact that students were expected to complete PPP without payment. Some saw this as a significant drawback (P1:H3) and a challenge, in addition to the lengthy placement period (P1:P10) for no pay (P1:F10).

A report compiled by Eurostudent (2018) deals with how students experience university life. From its findings it emerged that the '*overall average monthly income for all students is €754, while the average expenditure on living costs is €832, (42% of which is provided by someone other than the student, usually a parent or partner), according to the report's findings*' (Ryan 2018). This is a significant shortfall for students and especially for those who may not have a parent or partner willing or able to contribute. A suggestion by Buckley and ElAmoud (2011) is that unpaid placement should take place during term time allowing students to get paid summer work, if they wished. Placements that needed to be taken during the summer months required, for example, a shorter day policy. In theory, this is a good idea, but in practice a very difficult scenario

to arrange. However, according to the students in the Buckley and ElAmoud report, payment during placement is not an obstacle because they claimed that even though they did not get payment, the employer made it up to them by *'investing time, training, energy and expertise providing the student with a better overall experience'* (Buckley and ElAmoud 2011, p19). The students' point of view in this instance is very mature. However financial uncertainties for students could be a cause of great concern during their experience of PPP.

If students were to be paid while on PPP would this mean more responsibility for the student? Smith et al (2013) carried out a report where they looked at '*comparing employer and student outcomes of paid and unpaid work placement'*. Their findings suggested that students undoubtedly recognised and appreciated the value and need of PPP but while some students were willing, they were not always able, to undertake unpaid PPP (Smith et al 2013). Their report included findings from the employer and they too saw the benefit of taking part in PPP claiming that offering placement meant they not only enhanced the company's reputation, but they as an employer were providing an opportunity to mentor and guide students. Of those employers who offered paid positions, they felt that it encouraged a more professional attitude from the students (Smith et al 2013). In this instance the participating graduates stated that their main challenge was to find a suitable placement close to home or with suitable transportation available rather than the monitory value. This contrasts with the current literature where external challenges facing students included finding a suitable placement for the best possible experience, not necessarily one closest to the student's home (Bukaliya 2012).

5.8.2.6 Finding a Suitable Placement

Finding a suitable PPP as near to home as possible for a student could at times be difficult. The AIT dental nursing students found their own placement, under the strict supervision and guidance of the placement coordinator. The reason for this is to provide students with the opportunity to experience the challenges of finding a prospective place of employment. While none of the graduates mentioned any challenges in approaching the dental practices to ask for PPP

experience, they did highlight the challenge of finding a suitable placement (P3:O11) close to their home (P1:X4). In some instances, graduates might have had to travel up to one hour for a suitable placement (P3:N11).

The researcher agreed with the literature that finding a suitable placement for the best experience can be difficult (Keating 2003; Cunningham 2010; Little and Harvey 2006). For this study, the suitability is not deemed as important as finding a placement close to home. These challenges were only temporary issues for the student in their initial stages of PPP and academic life (Keating 2003; Cunningham 2010; Little and Harvey 2006). However, finding any sort of placement may prove to be a difficulty in the future if the requests of the HEA are upheld (Liston, Frawley and Patterson 2016). This would see all academic programmes contain a PPP element by the year 2025. The mass acquisition of employers willing to take students on PPP may saturate the market place very quickly making it even more difficult for all concerned.

5.8.3   Deduction

Overall the research questioned the challenges faced by the dental nursing graduates. Undoubtedly, anything altered, changed or new to us in life can be challenging. If we are prepared, then worry and anxiety should be lessened. If not, it is inevitable that additional worry, anxiety and stress will be part of life. It is clear to the researcher that while some of the graduates may have experienced anticipatory nerves, they did acknowledge that it is something they had to get through in order to progress. They knew that these experiences would lead them to their goal of becoming a dental nurse.

While students in AIT gained valuable practical experience in the dental suites located on-site in AIT - with staff such as dentists, hygienists, and class mates as patients, they were in a safe, controlled and familiar environment. This is not to say that the same conditions do not apply in a dental practice, but the students were removed to a real-life working dental practice with real patients and clinical staff they were not familiar with, so it is only natural that stress, worry and anxiety prevailed. Continuous stress however, may have been due, as mentioned

previously, to our personality and coping skills. Positive, adaptive or easy-going personalities were more likely to be associated with efficient and effective coping skills, whereas those with a negative, weak or rigid personality might lack or avoid necessary coping skills, thereby focusing on the problem and not the solution (Afshar et al 2015).

When graduates were asked about external challenges they may have encountered whilst on placement, it was established that they had little or no challenges in relation to the staff or patients in the practices. Instead their challenges stemmed from the lack of transportation, finance and often an inability to find a suitable PPP. Casey, Fink, Krugman and Propst (2004) argued that challenges and negative learning experiences on PPP could hamper and obstruct learning due to anxiety, worry and/or stress, felt by students who took the PPP element. Casey el at (2004) emphasised the fact that financial issues were a major concern, whereas the participants in this research study highlighted transportation as being a major concern (Casey et al 2004). From the researcher's understanding, the transportation issue arose from students who lived in the country, where bus routes may not have existed and where they relied on family and friends for lifts to their nearest town. While financial issues were certainly a concern, it is worth noting that nearly all graduates completed placement in their home town, which may have ensured a lessening of financial fears. Furthermore, while the graduates may have experienced these challenges, it did not in any way seem to hamper their ability to learn, progress and graduate.

Every student should be given the opportunity to work in their chosen career for a period of time while studying an academic programme. The consequence of a student not learning or not taking part in placement according to Duignan (2002) is that they could fail academically. If this is the case, pursuing an academic qualification without a placement element could be deemed detrimental to one's career.

5.9   Conclusion

The graduates gave detailed views, experiences and perceptions of their PPP journey through reflection, outlining the need, benefit and value of PPP. While challenges did exist, they proved that it was a worthwhile journey. The graduates' desire to progress in their chosen profession is a powerful motivator. It is an important journey of discovery because it is during trying times of stress and feeling out of one's depth or comfort zone that discoveries were made about their true selves and what they were made of.

Knowing ourselves can lead to a better more satisfied life in both our personal and professional worlds. Choosing a profession, then training and working in that professional environment, if lucky enough, can help to discover and develop the hidden true self.

The findings in this study were all relevant leading to interesting insights into the world of PPP. While some findings were very predictable, some were unforeseen. This research study presented the raw views, ideas and perceptions of the participating graduates. We as teachers and educators needed to allow and encourage our students to develop, not only their academic and practical abilities, but personal and professional qualities such as empathy, understanding, communication and confidence. To do this we need PPP!

The participating dental nursing graduates have proved that PPP is of *'value'* to their academic programme. The learning achieved, benefits obtained, and the personal and professional progressions of their educational journey is evident, not only from the interesting and detailed discussions, but the confirmation of reaching their goal of employment in their chosen profession.

CHAPTER 6:   Recommendations

6.1   Introduction

The recommendations outlined in this section stem from the preceding chapters of this study, examples from current literature, the analysis of data and discussions and the researcher's personal experiences. Some significant details emerged through discussions with the graduates as to how the dental nursing profession lacks structure, recognition and clarification in relation to the role of the dental nurse. While some of the data derived from this study was not required, it was however anticipated and does warrant significant prominence so that immediate changes will be made to regulate policies.

6.2   Recommendations: The Profession of the Dental Nurse

DN graduates have demonstrated that the clinical and professional skills they acquire as part of their training programme in AIT (or equivalent) in conjunction with the real-life experiences received from placement, have made them much sought after and employable dental professionals for both community and private practice. It is imperative that the relevant government agencies acknowledge, validate and recognise this training for their unique skills and professional status within the dental sector.

Complete and up-to-date job descriptions are an immediate requirement. Currently the job description of a dental nurse does not reflect the modern jobs and tasks associated with dental nursing. There is an immediate need for a dental nursing grade structure reflecting the work undertaken on a daily basis.

The following recommendations for the regulation of the profession of the dental nurse are a necessity, requiring recognition and addressing with immediate effect.

6.2.1 Recognition

A job description and outline of specifications for each grade of dental nurse needs immediate review and updating.

The formation of mandatory Continuing Professional Development (CPD) hours for dental nurses needs to be examined. CPD hours are available and while recognised are not mandatory for dental nurses. These should be mandatory, with options available for those wanting to progress, upskill be more fulfilled in their job. All dental professionals have a duty of care to keep skills and knowledge up to date (GDC 2019). Mandatory CPD would give the dental nurse better capabilities and competence, benefiting both themselves, the dentist and the patients.

There should be alignment with the UK Scope of Practice model of 'extended duties' courses' where a dental nurse can further career opportunities and be educated and trained to undertake extended clinical duties (NHS 2019).

6.2.2 Additional Skills and Education

There are a number of courses under the title of 'extended duties' which dental nurses can take to further develop their skills and career including:
- Oral health education and oral health promotion
- Assisting in the treatment of patients who are under conscious sedation
- Further skills in assisting in the treatment of patients with special needs
- Intra-oral photography
- Shade taking
- Placing rubber dam
- Measuring and recording plaque indices
- Pouring, casting and trimming study models
- Removing sutures after the wound has been checked by a dentist
- Applying fluoride varnish as part of a programme which is overseen by a consultant in dental public health or a registered specialist in dental public health

- Constructing occlusal registration rims and special trays
- Repairing the acrylic component of removable appliances
- Tracing cephalographs

Skills on Prescription

- Taking radiographs to the prescription of a dentist
- Applying topical anaesthetic to the prescription of a dentist
- Constructing vacuum formed retainers to the prescription of a dentist
- Taking impressions to the prescription of a dentist or a clinical dental technician (CDT) (NHS 2019)

6.2.2.1 Specialised Dental Nursing

The training and recognition of specialised dental nurse qualifications within specialist fields such as: oral health promotion, paediatric and orthodontics should be pursued.

The availability of post certificate qualifications for dental nurses in alignment with the UK who offer the following should be available to Irish dental nurses:

Oral Health Education – suitable for dental nurses who are required to offer oral health advice to patients under the direction of a dentist.

Dental Radiography – for those who are required to x-ray patients under the direction of a dentist.

Dental Sedation Nursing - suitable for dental nurses who assist in the surgery during routine conscious sedation.

Special Care Dental Nursing - suitable for dental nurses who assist with people whose health and social care needs may require special oral health care provision.

Orthodontics - suitable for dental nurses who assist in orthodontic procedures.

6.2.2.2 Maxillofacial and Surgical Dental Nurses

The recognition of Maxillofacial and Surgical Dental Nurses based in a hospital environment needs to be acknowledged for the title and the work involved. These nurses should be ranked under the maxillofacial surgical status as they are specialised nurses in a unique area of the dental profession. Again, it is essential that the relevant government agencies adjust this status to be in line with other similar surgical health care nursing professionals. The maxillofacial surgical nurse is a professional status and should be acknowledged, validated and recognised for the position, training, unique skills and experience within the dental sector. They should have the option to accompany the dental surgeon to theatre when and if required in line with their surgical counterparts.

6.2.2.3 Training and Education

The training and education regulation for dental nurses should be outlined and dental nurses should only be admitted to work, as a dental nurse in public and private dental practice after completion of an academic programme such as the Higher Certificate in Science (Dental Nursing) programme (or equivalent) which incorporates PPP as a mandatory element.

Completing the B.Sc. is necessary if the dental nurse is interested in advancing to specialised areas such as:
- Paediatrics
- Geriatric
- Practice Manager
- Oral Health Promotion
- Marketing and Sales of Dental Equipment and Products
- Dental Lifestyle Consultancy
- Adviser on Oral Health and Nutrition to special populations/organisations

The Code of Practice for infection prevention and control guidelines outlined by the Irish Dental Council needs to be legislated. Dental nurses need to be protected as a health worker, against infection to their own health and that of their patients.

Each of the above-mentioned terms need to reflect the pay scale health care equivalent.

This research study's primary question asked about the *'value of PPP'*. The researcher felt that a number of issues which were highlighted in the findings led her to form the basis for supporting and enhancing the recommendations outlined.

6.3   Recommendations: The Dental Nursing Programme

These recommendations relate but are not limited to the Dental Nursing Programmes and are outlined under the following headings:

6.3.1 Internal Challenges

Readiness and Internal Challenges were of huge concern to the students and it is these concerns that led to stress and worry, combined with the feeling of vulnerability before and during PPP. While internal and external challenges were noted, these recommendations specifically adhere to internal challenges and readiness of oneself in preparation for PPP.

6.3.1.1 Attendance/Class Size

Enforcement of a compulsory 75-80% attendance assigned to all classes benchmark with linkages to grading if desired, could be a worthwhile and productive incentive (Lukkarinen, Koivukangasa, Seppäläa 2016; Chenneville and Jordan 2008).

Consideration should be given to making attendance at lectures, labs and practical classes mandatory. Absenteeism is not mentioned by the graduates in this research, but it is a topic of concern to the researcher who felt that non-attendance could be an issue in some cases. As educators it is important to emphasise the need for students to attend all classes in their programme. An attendance threshold, common in HEI's, is a mandatory requirement for practical and laboratory classes, but this is not the case for theory classes. Unfortunately, these types of classes tend to be larger because a number of disciplines come together into a huge auditorium making attendance monitoring time consuming (O'Dwyer 2011). Theory classes in most instances link to either a practical or laboratory class. Attending one without the other could suggest a lack of completion in understanding. It is recommended that theory classes be the same size as a laboratory class containing one cohort/class only, thereby ensuring that students do not get *'lost'* in bigger classes.

While the findings from research on class attendances might be divided, Lukkarinen et al (2016) confirmed that *'class attendance is, indeed, related to performance'* (p346). They suggested that all students were different and for that reason some might succeed in an exam despite not attending class. On the other hand, students might be attending class but not actively participating. It is the attendance and active participation in class which proves to be a significant forecaster of exam results (Lukkarinen et al 2016; O'Dwyer 2011).

Students attending third level education are of an age (18 years or older) considered to be an adult. Unfortunately, in some cases while their age number may determine maturity, their actions and responsible attitude for some, do not. The connection between class attendance, student learning, exam grades and anxiety has received considerable attention (Md Noh and Yusoff 2018). If a student is attending and taking part in class and class activities, in conjunction with the relevant support structures available to them, then worry and anxiety should be substantially less when going to PPP, than those students with poor attendance and interaction.

It is the belief of the researcher that class attendance is vital for all students but most especially students of dental nursing. Practical learning combined with theory provide a sound and stable foundation for dental nursing; one without the other, can never be compensated for.

The researcher notes from the findings that it is because of the active participation, the assigned practical/theory classes, the interactions with student and staff, the set procedures and tests that students became competent, resourceful and capable in their ability to perform as a dental nurse. This eliminated some if not most of the internal challenges, stresses and anxiety incurred, while at the same time increasing confidence, competence, knowledge and ability.

6.3.1.2 Guest Lecturers

Appointment of guest lecturers such as dentists, dental nurses, hygienists and other dental related professionals should sporadically take part in the teaching and possible formative assessment (where appropriate) of dental nursing students.

The programme should try to include relevant, focused inputs from a range of guest lecturers. Appointment of a guest lecturer would alleviate the monotony of students seeing the same lecturing staff and would also encourage students not to miss a lecture for fear of missing out. Khan and Zhang (2017) maintained there were many advantages to appointing guest lectures, not just for the student and the higher education institute, but also the promotion of the guest and their practice, business or product. Their involvement would be an advantage to all concerned, providing additional support and bringing specific knowledge and insight into the career of dental nursing. Khan and Zhang (2017) suggested the following advantages:

Student	Guest	HEI
•building a relationship with industries' professionals •relating theory to practice •promotes in-depth learning by inspiring the student to do more self-study	•builds relationship with higher education centre •access to recruit future employees •personal satisfaction and feel good factor •advertisement of practice/business/product	•strengthens association and relationship with practitioners •increases opportunities for more collaboration •enables and promotes higher order thinking by analysis and evaluation rather than the basic understanding

Figure 6.1 - Benefits of Guest Lecturers.
Adapted from: Khan and Zhang (2017 p108)

The recommendations for Readiness and Internal Challenges could have been combined with the next set of Recommendations for the Development of Personal Characteristics because it is in the development of oneself that we become ready and able to deal with our internal challenges. In this instance they were kept

separate so as to gain a better understanding of each as they link to the respective themes previously outlined.

6.4   Recommendations: Workshops for Developing and Building Personal Characteristics and Attributes

6.4.1   Workshops

A series of focused workshops should be developed, aimed specifically at getting to know oneself and incorporating elements necessary to start a dialogue with oneself, asking the right questions and creating a better awareness of readiness and feelings towards PPP, in addition to acknowledging one's emotions and behaviours (Bandaranaike 2015).

Participation in a workshop, prior to commencement of PPP, would help to acknowledge the fear and worry students might have, in addition to developing awareness of their thoughts, feelings and attributes, (Dunne and Ryan 2016; Jameson, Carthy, McGuinness and McSweeney 2016).

These workshops should be designed to:
- Enhance Professional Development
- Promote Emotional Intelligence and Soft Skills
- Incorporate Coping Skills for Health, Mind and Body
- Reassure that supports are available to students when on placement

The following elements should initially be included in the workshop and be developed and enhanced periodically as the semester progresses:

6.4.2   Reflective Writing, Before, During and After PPP

A specific workshop on reflective writing should be developed, incorporating reflection in both writing and practice, giving examples of good and bad reflective writing and the use of appropriate language. The custom of writing a reflective journal before, during and where possible after PPP, is a recommendation strongly focused on the student getting to know themselves, their feelings, experiences, expectations and abilities.

Bandaranaike (2015) suggested the use of reflective practice and writing prior to commencement of placement in order to help raise the unconscious to the conscious. She proposed that '*the conscious questioning of one's emotions are required to understand one's underlying beliefs, values and attitudes to the workplace'* (p4). Laker (2005) found that we can get caught up in the everyday trials and tribulations of life, leading to a failure of being fully able to appreciate the PPP experience and its teachings (Laker 2005). His research identified five benefits to keeping a reflective journal while completing PPP. Students should be aware and acknowledge in writing what they want to achieve from the PPP experience:

1	2	3	4	5
Provides an opportunity to reflect upon their "fit" with a career that they had aspired to, or an organization for which they hoped to work	Writing ensures a physical record of their performance, responsibilities and experience	It provides a chance to examine and reflect on their experience, performance and responsibilities	Students could reflect on their learning while on PPP	Completing a reflective journal will provide a greater awareness of the link that forms the PPP experience with that which was learned in the class room

Figure 6.2 - Five Benefits to Keeping a Reflective Journal.
Source: Laker (2005)

The researcher concurred with Bandaranaike's and Laker's thoughts and ideas and while DN students do currently practice reflection and reflective writing, it is only on commencement of PPP and not prior.

6.4.3   Personality Assessment

Consideration should be given to developing a Personality Assessment Workshop. An individual's personality does not change. It is the traits, adaptations and characteristics of a personality that can alter over time, due to life and career progression, maturity and a student's understanding of themselves (Wilks 2009; McAdams and Pals 2006). However, an awareness, knowledge and development of personality traits, characteristics, attributes and coping abilities also known as soft skills are, in the researcher's opinion of vital importance.   Soft skills were

highlighted by the participating dentists and were comparable to those outlined in the literature review by Jameson et al (2016) among others. While on PPP students learn, adapt and gain proficiency in these soft skills, something which was of vital importance to the participating dentists.

Workshops outlining personality assessment tools should be available to help students explore aspects of their personality, characteristics and traits. These workshops might involve the use of some of the following instruments:

> **DISC,** a behaviour assessment tool based on the theory of psychologist William Moulton Marston (1928) developed by Walter Vernon Clarke, centres on four different behavioural traits: *Dominance, Inducement, Submission, and Compliance* (Disc Profile 2018).

> **The Myers-Briggs Type Indicator (MBTI)** test, identifying sixteen personality types, was developed by Isabel Briggs Myers and her mother, Katharine Briggs. Based on the conceptual theory proposed by Carl Jung (1971). Myers-Briggs speculated that humans experience the world using four principal psychological functions – sensation, intuition, feeling, and thinking and that one of these four functions is dominant for a person most of the time (Myers-Briggs 2018).

The purpose of these or similar tools is to give students an insight into themselves as individuals. These methods may not be scientific, but their aim is to allow students to become more aware of themselves as individuals, their thoughts, feelings, senses or intuition. While the above concentrate on personality the following therapy allows for a better understanding of one's thoughts.

> **Cognitive Behavioural Therapy (CBT)** works by gaining a better understanding of one's thoughts and actions that can affect the way one feels. CBT is a talking therapy based on scientific methods, aimed at reducing the symptoms of almost all mental health problems, but especially anxiety and depression (Mental Health Ireland 2018). It works

to build alternative ways of thinking and behaving, thereby improving the overall quality of ones' life (Mental Health Ireland 2018).

These suggestions to some, might seem questionable and while not all are scientifically based, they do serve a purpose by triggering a better awareness of oneself. The Australia Medical Association (AMA) believe that there is some merit to gaining a better perspective of oneself. They use a test called the Undergraduate Medicine and Health Sciences Admission Test (UMAT) as an entry requirement to medical school. This test assesses undergraduates on their soft skills such as: *'critical thinking, problem solving, understanding people and abstract non-verbal reasoning',* abilities the AMA consider important to the study and the later practice of medicine (AMA 2018). A similar method is used in Ireland, The Health Professions Admission Test (HPAT) an admission test used to assist with the selection of students into medicine and other competitive health science courses at university (Med Entry 2019).

The HPAT exam is divided into three sections:
Section 1:   Logical Reasoning and Problem Solving
Section 2:   Interpersonal Understanding
Section 3:   Non-Verbal Reasoning

HPAT does not test academic knowledge but was developed with the goal of assessing the above mentioned qualities considered desirable in health care professions, as well as the ability to show empathy in understanding the thoughts, behaviours and/or intentions of others (Med Entry 2019).

The researcher believes that the introduction of these tests help students in all areas of the health care profession, who are devoted to the support, care and guidance of their patients. They help students become cognizant of their personality traits, with an ability to interpret their ideas, beliefs and influences and have an openness to growth of mind. These tests may lead to clarification of feelings, an awareness of coping mechanisms and an acknowledgement of the need for change.

Extended discussions and revisiting of this method should be ongoing so that the student has a better understanding of themselves and the possible need for amendment or enhancement to their own characteristics, traits and personality.

6.4.4　Mindfulness

A mindfulness workshop should be developed as this module may provide students with the necessary coping skills required for PPP. According to Bamber and Schneider (2016), mindfulness interventions can be claimed to be an effective method of reducing stress and anxiety in students. Students entering third level may have had previous knowledge and experience of such skills from programmes and curriculum interventions initiated in secondary school. In these programmes, life, social and emotional skills are promoted to encourage student well-being, thereby promoting long-term benefits, which include positive emotional and social health. Completion of these programmes/workshops can result in better quality academic attitudes and progression (Whitty and Farrelly 2017). The art of mindfulness or other similar training techniques should not be dismissed as a *'new age alternative'*, but instead seen as a basic but necessary choice to train the mind in mental focus and imagery, similar to the techniques employed by Tiger Woods and other great golfing/sports professions (Mental Gold Academy 2015).

6.4.5　Positive Interaction Talks

A workshop should be developed to promote, encourage and teach 'positive interaction talks' with peers within the class so that each student gets to hear and learn from one another about PPP. Once established, with boundaries set, this could be continued on a permanent basis as PPP progresses. A time set for 20 minutes each week would be sufficient.

This study revealed that talking to one another following a day's placement, getting to know and understand each other's tasks, experiences and dealings with everyday issues in practices is important to the participating graduates. The

researcher believes that time allocation is important and necessary as it builds confidence and assurance as they find a shared commonality.

6.4.6 Empathy and Emotional Intelligence

Emotional Intelligence is our mind's ability to understand, manage, and express our emotions effectively in our everyday life. Some are lucky to be born with empathy and emotional intelligence, but others may need a little help.

Instilling empathy and emotional intelligence (EI) are important for the profession of dental nursing and all health care professions. Daniel Goleman (1995, 1998 and 2001) is the most influential and recognised in broadcasting and describing the concept of emotional intelligence (EI or EQ). Although prior to Goleman's involvement Salovey and Mayer (1990) were the first to publish scientific articles in peer-reviewed journals (Newman 2010). Their theory of EI was framed within a model of intelligence and referred to a collection of abilities and capabilities through which each individual dealt with their own emotions and those of others (Salovey and Mayer 1990).

Today, Roche-Martin is one such company to the forefront when it comes to emotional intelligence, mindfulness and leadership (Roche-Martin 2019). This company have developed a suite of tools which will help understand how emotions shape thoughts and actions. The first step is to gain greater control over our behaviour, while developing the skills to manage ourselves and other people more effectively which in turn maximises our influence as a leader.

Dr. Martyn Newman is MD of Roche-Martin and a consulting psychologist with an international reputation as an expert in EI, leadership and mindfulness. Working with companies such as Sky, Boeing, Ernst & Young and Deloitte (Roche-Martin 2019), he believes that emotional intelligence can and needs to be taught to all students. A well-balanced, empathetic, and friendly dental nurse is more emotionally aware than an unfeeling and disheartened dental nurse. An emotionally intelligent person should possess the following:

- The ability to know one's own emotions
- The ability to connect to others' emotions
- The ability to actively listen to others
- The ability to actively participate in interpersonal communication and understand the nonverbal cues of behaviour
- The ability to control one's thoughts and feelings
- The ability to effectively manage emotions and express them in a socially acceptable way
- The ability to receive criticism positively and benefit from it
- The power to forgive, forget, and move on in a sensible manner (Daniel Goleman 1995)

6.5 Recommendations: PPP Structure, Supports and Responsibility of Stakeholders

6.5.1 Structure

While the HEI might recommend a standard duration and structure, (Sheridan and Linehan 2012) of all work placement experiences, it is the researcher's opinion that such standardising should be considered only for a four-year degree programme, with placement experience allocated in year three of the programme. H.C. programmes should have their own structure, as should other non-standardised programmes.

6.5.2 Combination Placement

The H.C. in Science (Dental Nursing) programme consists of 40 days *'combination placement'* completed during the academic year. A combination placement is made up of:

- one day per week during the academic year, in addition to a
- one week block placement during academic holidays (e.g. Christmas and Easter).

The respondents commented on the support received from the practice placement and institute staff, and also the help received from classmates. As mentioned in the literature review there are a myriad of placement formats and names, each suiting the specific requirements of the programme. Participating graduates commented on the benefits of PPP with respect to having a combination placement. This combination suited first year students who may have felt the PPP process initially overwhelming as it provided the support needed during the academic year. Interestingly, the dentists favoured a total block placement. Both formats have their place, possibly combination placement for first and second years and block placement for successive years.

6.5.3 Nominal Payment for Students

The question of payment while on PPP is important, so for that reason the researcher suggests that:

- A set payment should be given to the student by the host placement if PPP is positioned in the third year of a degree programme for a block period, e.g. six to twelve months or longer. Payment should reflect the current minimum wage.

- A nominal payment should be discussed and agreed by host placements and Education Institute, if PPP is for short block periods or day releases.

6.5.4 Resources and Organisation of PPP

The planning, organising and monitoring of work placement is time consuming for both the HEI and the dental practices who undertake such placements. Access to resources are needed urgently and should be allocated annually to each academic programme who accommodate a work placement element as part of their programme. The urgent need for future financial funding, towards the allocation of time and management of professional practice placement coordinators, academic staff and practitioners who as a community enhance, develop and guide the student in their chosen career.

6.5.5 Training for Host Practices

It is recommended that the HEI organise a training day/evening workshop prior to dental practices taking a student on placement. For the dental nursing programmes, it is important that the dental lecturing staff from the HEI and the dental clinicians from practice meet to review the guidelines, training and expectations of the programme, with particular emphasis on the student work book. Potential barriers should also be highlighted to the dental clinicians such as the amount of time required for supervising and shadowing a student, the possible limitation of surgical space and lack of cooperation from staff members.

These possible issues should be discussed prior to commencement of placement. While limitations and barriers are acknowledged so too is the reward and a valuable learning experience of taking a student on work placement not only for the student but the dentist in facilitating learning and contributing to the development of clinical and soft skills.

6.5.6 Educational Audit (EA) of Dental Practices

The question of the suitability of the PPP location is a significant one. Findings in this study mentioned the importance of placement location to the overall success of the PPP experience. There is no evidence to suggest that a host practice placement would deliberately ignore or not get involved in the provision of an optimal learning experiences for students. However, lack of familiarity or understanding of the needs and expectations of the DN programme may result in an inadequate placement experience for the student. For this reason, it is recommended that:

- An EA of the chosen practice placement be carried out by nominated academic staff, prior to, or during the student commencing PPP

- Training workshops (as previously mentioned) organised by the host institute for practical introduction to PPP and what is expected by the participating dentist and clinical staff

- Guided practical overview with suggested *'real-world'* scenarios for completing PPP Workbook

- Limited placement offered to second level transition year students so that higher education and further education students can benefit from prolonged periods of placement, part-time work and employment

6.5.7   Supports and Responsibility of Stakeholders

It is arguable that stakeholders should take responsibility for achieving learning outcomes and engage in educational activities to provide job ready graduates (Sheridan and Linehan 2012). To do this, stakeholders should be equipped with the following information and details. In this instance the stakeholders comprise of Dentists, Students and Educational Institute.

6.5.7.1   Stakeholders Booklet

Students and participating dentists should be provided with a Guidelines and Rules Booklet (Appendix 4) in conjunction with the previously mentioned training workshop. This booklet should outline the expectations, requirements, regulations, behaviour and responsibilities of all stakeholders involved, highlighting specific issues such as confidentiality and working within the student's limitations. Prior to commencement of PPP the stakeholders are required to ensure that:

- Learning outcomes are achieved
- The Guidelines and Rules Booklet is carefully followed and respected
- Copy of Insurance Certificate is available to each stakeholder
- Contact Details are available to each stakeholder
    - Students Contact Details and In Case of Emergency (ICE) numbers
    - Participating Dental Practice and assigned supervising dentist
    - Education Institute representative (placement coordinator)
- Workbook is completed as per instructions

6.5.7.2 AIT Dental Nursing Workbook

The student's workbook has been mentioned a number of times in the previous recommendations. This is because it is of great importance to the students and therefore needs to be completed to the highest standard. It provides the HEI with a detailed account of the procedures, tasks and competencies achieved while on placement. The workbook is the student's responsibility. It forms part of a

student's overall practical assessment and contains questions and exercises which must be completed by both student and assigned supervising dentist/clinician. As previously mentioned an instructional and guided practical overview with suggested *'real-world'* scenarios is available to all stakeholders during EA.

6.6   Deduction

The recommendations are wide ranging and seek to cover all aspects of the PPP experience. The researcher would like to ensure that the PPP experience remains dynamic, relevant and valued. It is important that most, if not all recommendations are considered by programme providers working in the PPP area.

The pursuit of forward thinking, high quality PPP experience lies at the heart of many academic programmes. It is mandatory that the providers of these programmes ensure the quality of the experience matches the associated significant and distinctive value of PPP. HEI have a duty of care to students and should cultivate and nurture stakeholder relationships, working in step with professional clinicians to ensure an expert approach and commitment to academic and PPP excellence.

6.7   Limitations of the Study

During this study, the researcher developed from experienced to expert and while this process was an invaluable experience she is aware that the questioning was limited and irregular.

Questioning relating to the focus group and interviews probably should have been more standardised and controlled to allow for more precise answering, especially from the focus group where participants spoke over one another and some contributed little. The interviews could possibly have been more structured for each participating graduate.

6.8 Suggestions for Future Research

PPP, in the researcher's opinion, cannot lend itself to be '*one size fits all model*'. It needs to be tailored to the specific programme level and career options. While some elements of PPP may work for a number of academic programmes, care needs to be taken to ensure the student, employer and educational institute are benefiting from the valuable and worthwhile experience of PPP. The graduates of AIT Dental Nursing programmes are highly skilled, experienced and work ready, making them much sought after by professional clinicians.

6.9 Final Conclusion

This study offers new and focused opportunities for academic programmes, choosing to link academia with clinical professionals through PPP. It builds on and adds to current literature which sees PPP as a valuable element of any academic programme. It contributes to the body of knowledge on PPP and how it is viewed by students and prospective employers. The study provides a series of recommendations to enhance the experience of what is deemed to be a worthwhile and valuable learning tool. It also highlights the urgent need for immediate changes to policy, in relation to the structure, recognition and clarification of the role of the dental nurse.

The research originally asked about the '*value of PPP*', through the views, experiences and perceptions of dental nursing graduates. In answering this question, the graduates outlined in detail the benefits and challenges they faced, drawing on the effectiveness of PPP as a learning tool in preparation for employment. The recommendations outlined, developed after listening to the dental nursing graduates. It is anticipated that the role of the dental nurse will be acknowledged and accredited, the challenges faced by students will be lessened by the suggested recommendations and that the recognised benefits will be further enhanced.

Aristotle maintained that we are born with a mind that is a tabula rasa (a blank slate) and that the condition of our living and social environments, shape our characters (Barber 2016).

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KEY

- FETAC - Further Education and Training Awards Council
- SEC - State Examinations Commission
  (Department of Education & Science)
- HETAC - Higher Education and Training Awards Council
- DIT - Dublin Institute of Technology
- Universities

AWARDS IN THE FRAMEWORK

There are four types of award in the National Framework of Qualifications:

- **Major Awards:** are the principal class of awards made at a level

- **Minor Awards:** are for partial completion of the outcomes for a Major Award
- **Supplemental Awards:** are for learning that is additional to a Major Award
- **Special Purpose Awards:** are for relatively narrow or purpose-specific achievement

The **National Framework of Qualifications** (NFQ) is a ten-level system that provides a way to compare qualifications and ensure that they are recognised nationally and abroad. Each of the ten levels are used to describe the Irish qualifications system and each level is based on national standards of skill, knowledge and ability i.e. *what a person is able to understand and do after completing a process of learning*, with the higher numbers indicating a higher level of education.

The NFQ system places the **Leaving Certificate** at level 5. Students with a level 5 qualification have two ways in which to apply for a course; through the CAO, where their qualification is given a point score, or by applying for a 'linked' course; where a number of places have been set aside for QQI (formerly FETAC) applicants.

Students who enter at level 6 in an IT frequently have the option of staying on in that institution to do a level 7 'add on year' followed by a level 8 'add on year'. This means that a student can acquire a level 8 qualification in four years, as most level 8 (or honours degree courses) are four years in length,

From the Leaving Certificate, students can apply for courses from level 5 to level 8 (level 9 and 10 are Masters and PHD courses for which a student needs a level 8 qualification). The NFQ allows students to use the system like a ladder; ensuring whatever step one start on, they can move to a higher level which can be done in a number of ways.

Higher Certificate in Science
Department of Nursing & Health Sciences

Institiúid Teicneolaíochta
Bhaile Átha Luain
Athlone Institute
of Technology

Experience Portfolio Handbook
Dental Nursing Year 1

Student Name: _____

Student number: _____

Dental Nursing: Scope of Practice

Dental nurses are Dental Healthcare Professionals who provide clinical and other support to other DHPs and to patients.

Dental work carried out by a dental nurse may only be carried out under supervision of a registered dentist.

Subject to the foregoing conditions a dental nurse is permitted to carry out the following dental work:

> assist at the chairside during all dental procedures;
>
> prepare surgeries for dental procedures;
>
> prepare and sterilise dental instruments, disinfect equipment and carry out other infection control procedures following international standards and best practice;
>
> record dental charting and maintain treatment records;
>
> support the patient and colleagues if there is a medical emergency;
>
> assist in the care of patients receiving treatment under general anesthesia and conscious sedation;
>
> assist in the taking and developing of dental radiographs;
>
> take dental radiographs to the prescription of a dentist (having completed a Dental Council approved course in dental radiography);
>
> give appropriate health promotion advice to patients;
>
> carry out appropriate clerical and administrative duties.

Dental Nurses **do not**:

> diagnose disease or treatment plan.

They do not undertake any of the skill areas described in the Scope of Practice document as being reserved to dental technicians, clinical dental technicians, hygienists or dentists.

Dental Council of Ireland, Scope of Practice (2010)
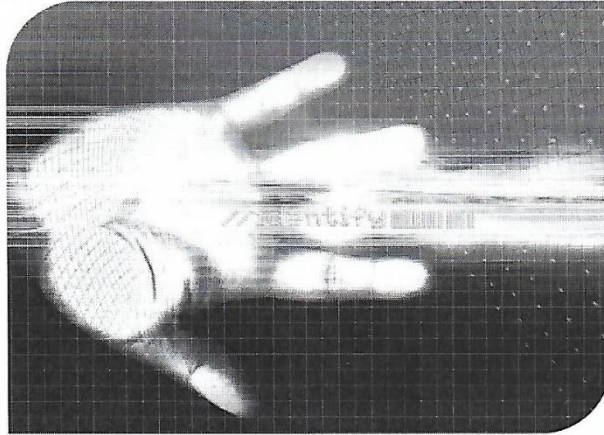
Supervising Instructions

The dental clinician, practice manager & decontamination lead will work as a team to assess the students overall performance and allocate a grade based on their performance (see below grading scheme)

For tasks within the dental surgery, students are required to complete the date of treatment, location of treatment, patient initials for a minimum of two patients per day at placement. This task should be signed and graded by the supervising clinician. It is understandable that students may need to observe to commence with so start date for this can begin at the clinician's discretion.

Supervising clinicians are asked to discuss the student's performance. If a student is graded as M = More experience needed, then another treatment episode must be recorded and assistance allocated within training institute at AIT.

Grading System:

E   = Excellent, equal to Distinction (70%)

VG   = Very Good, equal to a Merit Grade 1 (60%)

G   = Good, equal to a Merit Grade 2 (50%)

A   = Average, equal to a Pass (40%)

M   = More experience needed, task to be redone

List of Core procedures to be undertaken

1. Cross Infection Control

In accordance with Code of Practice (Dental Council, 2015)

2. First Aid & Emergencies

Emergency Kit

Training

3. Dental Examinations:

Personal, Medical & Dental History

Recording & Charting of Teeth

Clerical duties, Treatment & Cost plans
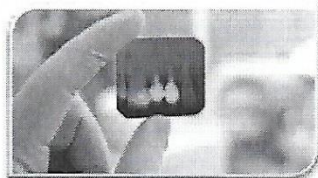
4. Dental Radiography
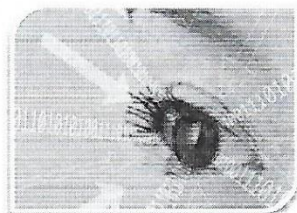
Health & Safety

Processing & Developing

5. Chairside Assistance

A list of procedures will include Restorative, Endodontic, Prosthetics, and Periodontics.

Mixing of dental materials included.

Clinical Experience Portfolio **Example**

Placement Skills Record Sheet (signed & graded by supervising clinician)

E   = Excellent

VG   = Very Good

G   = Good

A   = Average

M   = More experience needed

Number	1	2
Date of Treatment	01/09/16	08/09/16
Placement Location	Sunnyside Dental (general dental practice)	Ballyfare Specialist Dental Clinic
Patient Initials	J.L	E.C
Details of Treatment	26 DO amalgam 35 MOD amalgam	Surgical extraction 18
Comments by Clinician	This student has a good knowledge of instruments and cross infection control.	This was the students first surgical experience. She lacked knowledge of post operative instructions when patient asked.
Grade E, VG, G, A, M	VG	M
Signature	Dr Kelly	Dr Duffy

Dental Examinations
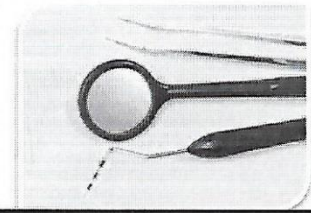
Personal, Medical & Dental History

Dental nursing students receive training in AIT on the Ethical Code of Conduct required by Dental Nurses and confidentiality.

A dental nurse must not make comments of a derogatory or disparaging nature on the services or treatment of other members of the profession or on the services or treatments of dentists or dental hygienists.

Dental nurses must not under any circumstances disclose information of a personal or professional nature acquired in the course of their work, related to their patients or the practice in which they attend placement, except to the dentist under whose supervision they are working and then only in matter relating to their work.

> 'All dental healthcare workers and staff within your dental practice must respect patient confidentiality. Disclosing information about a patient's attendance or any other aspect of their care should only happen with the patient's consent.'
>
> *Dental Council Of Ireland, Professional Behaviour & Ethical Conduct (2012)*

Should any of the dental staff in placement that are responsible for grading the student be concerned about ethical code, this matter should be immediately brought to the attention of the course coordinator.

To be completed by Decontamination Lead/Practice Manager:

Name: _____

Position: _____

Additional Feedback/comments

_____

_____

Signed: _____

Dental Examinations: Personal, Medical & Dental History

To be completed by Practice Manager/Clinician:
(FOUR separate incidences over the placement)
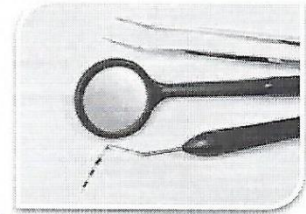
Skill	Date assessed/Grade necessary)	Comment (if
		Signature
Communication skills Towards patient: Demonstration to deliver or receive Dental/medical questionnaire:		
Communication skills towards patient: Demonstration to deliver or receive Dental/medical questionnaire:		
Communication skills towards patient: Demonstration to deliver or receive Dental/medical questionnaire:		
Communication skills towards patient: Demonstration to deliver or receive Dental/medical questionnaire:		

Higher Certificate in Science
Department of Nursing & Health Sciences

Experience Portfolio
Handbook
Dental Nursing Year 2

Student Name: _____

Student number: _____

Role of Dental Practice in the Handbook

The dental clinician, practice manager, decontamination lead, receptionist and dental nurse are required to grade the student on the student's performance for the appropriate tasks.

Active participation and feedback is encouraged.

1. Cross Infection Control: Practice manager/Decontamination Lead

Introduction - page 11
Grade / signature - pages 12 - 15

3. Dental Examinations/procedures: Practice Manager/Lead Dental Nurse/Clinician

Personal, Medical & Dental History - page 20
Recording & Charting teeth - page 21
Restorative
Removable prosthodontics
Fixed prosthodontics
Endodontic
Oral Surgery
Paedodontics
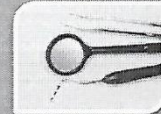
4. Dental Radiography: Lead Dental Nurse/Clinician

Grade / signature - pages 24 - 25

Role of Dental Practice in the Handbook

5. <u>Chairside Assistance Record Sheet</u> – CLINICIAN ONLY (from page 27)

Please grade, sign and comment if necessary, for a minimum of TWO chairside assistance procedures for each day at placement.

Students are encouraged to assist in:

- Preparation of surgery
- Assistance during procedures
- Mixing of Dental Materials
- Support patient
- Decontamination of surgery

The clinician's signature is verification that the student has completed each task and is competent in assisting procedures.

6. <u>Clerical & Reception Skills: Practice Manager/Clinician & Receptionist</u>

Personal & Professional Attributes – page 69

Clerical, Reception & Communication Skills – pages 70-72
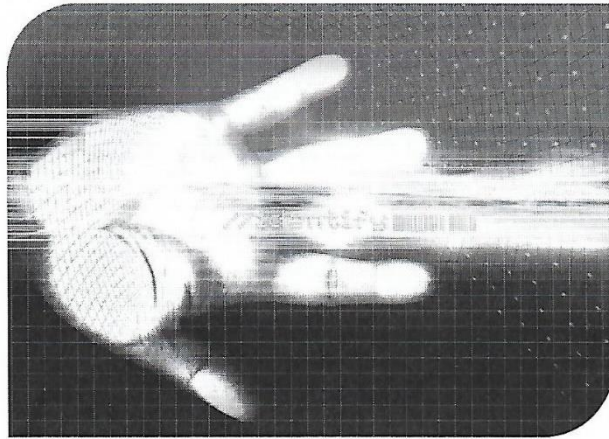
Supervising Instructions

The dental clinician, practice manager, decontamination lead, dental nurse & receptionist will work as a team to assess the students overall performance and allocate a grade based on their performance (see below grading scheme)

For Chairside assistance, students are required to complete the date of treatment, location of treatment, patient initials for a minimum of two patients per day at placement. **This task should be signed and graded by the supervising clinician.**

It is understandable that students may need to observe to commence with so start date for this can begin at the clinician's discretion.

Supervising clinicians are asked to discuss the student's performance. If a student is graded as M = More experience needed, then another treatment episode must be recorded and assistance allocated within training institute at AIT.

Grading System:

E   = Excellent, equal to Distinction (70%)

VG   = Very Good, equal to a Merit Grade 1 (60%)

G   = Good, equal to a Merit Grade 2 (50%)

A   = Average, equal to a Pass (40%)

M   = More experience needed, task to be redone

List of Core procedures to be undertaken

1. Cross Infection Control

In accordance with Code of Practice (Dental Council, 2015)

2. First Aid & Emergencies

Emergency Kit

Protocols & Drug dose
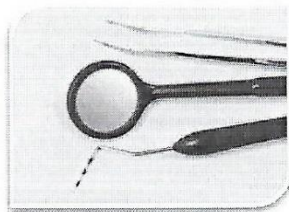
3. Dental Examinations:
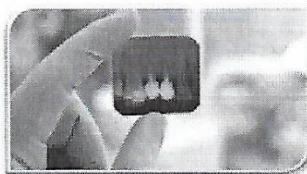
Personal, Medical & Dental History

Recording & Charting of Teeth

4. Dental Radiography

Health & Safety

Processing & Developing
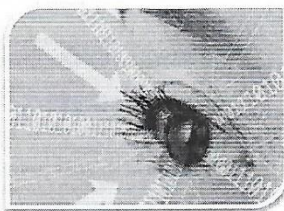
5. Chairside Assistance

A list of procedures will include Restorative, Endodontic, Prosthetics, and Periodontics. Mixing of dental materials included.

6. Clerical & Reception Skills

Personal & professional attributes

1: Cross Infection Control

Code of Practice Relating to Infection Control in Dentistry

Students have been instructed & assessed in AIT using the current guidelines outlined with the Dental Council of Ireland's Code of Practice (2015). Failure of students to adhere to the guidelines should be reported to the course coordinator Miriam O'Connor moconnor@ait.ie

"This Code of Practice sets out the standards required to minimize the risk of infection to patients and dental healthcare professionals alike.

The implementation of infection prevention and control policy and Standard Operating Procedures (SOPs) requires a thorough knowledge of the risks involved and practical measures to be taken to minimize these risks. By following sensible and practical procedures, as outlined in this Code, the risk of transmission of infection between patients and dental healthcare professionals is minimized.

It is the responsibility of dentists and all personnel working in the dental team to be aware of a number of core principles. Everyone has a responsibility to protect their health and the health of patients from the risk of infectious diseases. Leaders of dental teams also have a responsibility to those working under their direction. While responsibility for continuous education and training lies with each individual, each team leader and employer has an overall responsibility for his/her staff."

Dental Council of Ireland, 2015

Dental Nursing Students have undertaken strict proficiency testing with the Dental Clinic setting in AIT before they leave for placement.

Should there be any concerns in relation to cross infection control you can mark the sheet as 'M" or contact Ms. Miriam O'Connor, course coordinator [moconnor@ait.ie] who will bring it to the attention of dental lecturers.

Course Co-coordinator - moconnor@ait.ie

Dental Lecturers -   koshaughnessy@ait.ie
                         cmaloney@ait.ie

In accordance with **Section 5** within the **Code of Practice** document, AIT Dental Nursing Students should receive Induction training as any new staff member would receive. Students should adhere with the Practice Safety Statement and follow operating procedures covering the areas of patient and staff safety. These include decontamination processes, surgery cleaning, accidental spillage procedures, waste disposal and injury/accidental exposure.
The Decontamination Lead or Practice Manager may grade students

The training

Standard Precautions (Section 2, Infection Prevention & Control)

2.3.1.1. Hand hygiene (please grade accordingly)

E	= Excellent
VG	= Very Good
G	= Good
A	= Average
M	= More experience

Practices	Grade
Hand washing	
Long sleeves rolled up	
All arm/hand jewellery removed	

Practices	Date Assessed	Grad
2.3.1.3. Environmental Cleaning Contaminated worktops, surgery		
2.3.1.5. Zoning Exhibit clear knowledge and use of Zones within the surgery		
2.3.1.6. Surface Barriers Correct removal and placement of Barrier shields and equipment protection		

Practices	Date assessed	Grade
2.3.1.8. Prevention of Sharps injury (Recapping of needles are permitted only by nurses where Safety mechanism in place) Students should be aware of the EU Sharps Directive 2010 and HAS guidance document		
2.3.1.9. Management of Dental Unit Waterline (DUWLs) Students should be directed on the procedures In place for DUWLs. Students should exhibit Skills to run waterlines/purge units and use of chemical agents		
2.3.1.10 Suction system Daily & weekly protocols adhered to		
2.3.1.12 Dental Impressions Disinfection of lab work, marked accordingly Before lab dispatch.		

Decontamination of Dental Instruments (Section 3)

Practices	Date assessed	Grade
3.2.3. Decontamination Process Transportation of Instruments (in a secure container) Cleaning & Disinfection of Instruments Inspection & Packaging Sterilisation **Storage**		

BSc in Oral Health Promotion and Dental Practice Management
Department of Nursing & Health Sciences

Experience Portfolio Workbook
Dental Nursing Year 3
BSc in Oral Health Promotion
& Dental Practice Management

Student Name: _____

Student number: _____

Chairside Assistance

CLINICIANS are requested to grade, sign and comment if necessary, for a minimum of TWO chairside assistance/observations for each day at placement.

AIT BSC Dental Nursing students are qualified and encouraged to assist where the Dental Practitioner deems appropriate.
Duties may include:

- Preparation of dental surgery
- Dental charting
- Assistance during procedures including use of high volume evacuator
- Mixing of Dental Materials
- Identification & Passing instruments
- Support and show good communication skills with patient
- Decontamination of surgery following best practice

The clinician's signature is verification that the student has observed/completed each task and is competent in assisting procedures.

Should a Dental Practice have any concerns in relation to a student's ability please do not hesitate to contact course coordinator Miriam O'Connor.

Placement Details (Dental Nurse to complete)

Remember the dental surgery is a busy place, please prepare yourself at the beginning of each working day. You may assist the dental clinician with the 'Chairside Record Sheet' by documenting the following prior to grading:

- Date of Treatment
- Placement Location
- Patient Initials
- Details of Treatment
- Observations/Clinical Duties performed

EXAMPLE Clinical Experience Portfolio
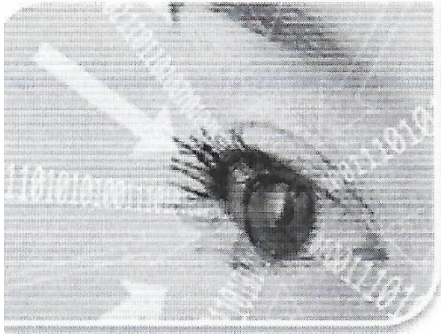
Chairside Assistance Record Sheet

E = Excellent

VG = Very Good

G = Good

A = Average

M = More experience needed

Number	1	2
Date of Treatment	01/09/16	01/09/16
Placement Location	Oral Surgery Dept, Hospital	The Point Specialist Dental
Patient Initials	J.L	E.C
Details of Treatment	Biopsy	Periodontal Examination
Observation/ Clinical duties performed	1. Surgery preparation 2. Assisted with Hand over of Surgical Instruments	1. Pocket Charting 2. Observed explanation of Perio including xrays
Comments by Clinician	Good knowledge of instruments. More experience with four handed dentistry needed.	Dental charting was perfect, student unsure of showed willingness to learn.
Grade E, VG, G, A, M	G	VG
Signature	Dr Cook	Dr Duffy

General Programme and Placement Rules
and Guidelines for
AIT Dental Nursing Students

Programme Placement Coordinator

Miriam O'Connor

Dental Nursing Aim

The aim of this document is to provide a guide to best practice for students who are undertaking a Work Placement module as part of The Dental Nursing Programmes. This Guide is intended to act as a reference document, to be used in conjunction with the detailed, course-specific requirements of the student's programme of study, AIT Students Handbook and other course related guidelines from lecturers. It is important that each student is aware and checks this guide for their own personal awareness.

Practice Placement
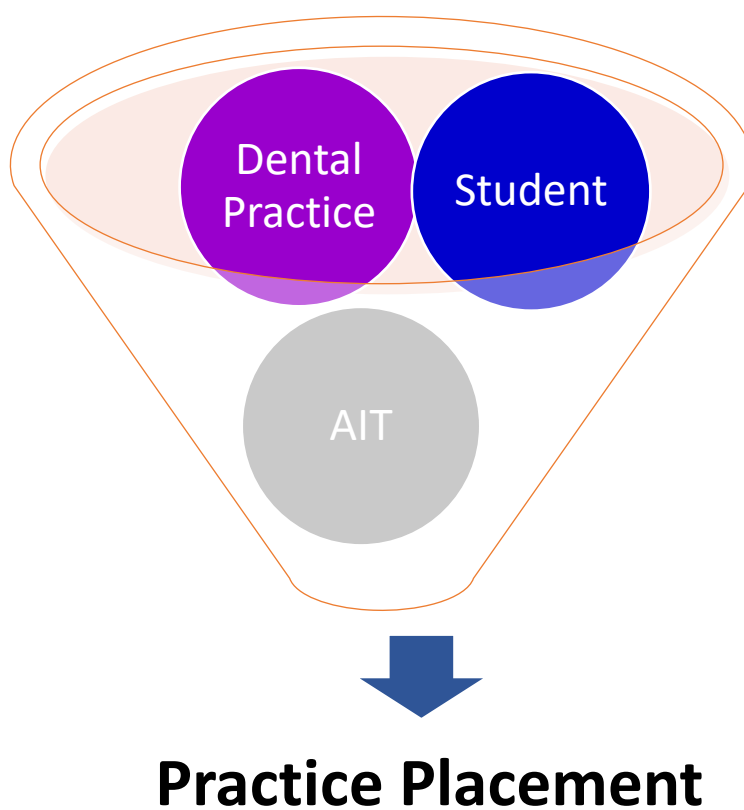
Placement Requirements

The dental nurse will be required to complete a work placement experience
Year 1 – 40 Days with an approved dental practice
Year 2 – 40 Days with a different approved dental practice.

Before the Practice – The Student Nurse Should:

- Compile a CV and Cover Letter and visit a dental practice in their chosen location as approved by Programme/Placement Coordinator.
- Wait to speak to the dentist or practice manager to discuss placement with their placement. This may take a few visits as the practice may want an interview. **REMEMBER:** an informal chat is never just a chat when you are looking for placement experience, it is an **interview,** so be on your guard at all times.
- Be aware that decisions regarding practice placement cannot be finalised unless it is agreed with the programme placement coordinator.
- Have a clear understanding of the practice placement element of the dental nursing programme and accept its implications in terms of preparation and commitment.

At the Placement – The Student Nurse Should:

- Ensure that the dentist or senior dental nurse signs the date sheet in work book on a daily basis.
- Be professional at all times – Remember you are representing not only yourself, but your family and the lecturers on the Dental Nursing Programme at Athlone Institute of Technology.
- Co-operate and be open to the arrangements made for you by programme/placement coordinator in conjunction with the dental practice.
- Most importantly, take every opportunity to make the most of your learning experience.

After Placement – The Student Nurse Should:

- Send a "Thank You" card to the dentist and staff on completion of practice placement. Thank them for their time, support and guidance to you during your work placement experience.

- Ask the practice for a reference and include and update your CV with your placement learning experience, highlighting skills developed and achievements.
- Use the experience gained as a basis for focusing on your career plans.
- Keep in contact with the practice let them know you are available for part-time/summer work

The Dental Nursing Student Should:

- Set their goals at the start, be eager, engaged, motivated and enthusiastic with a willingness to learn and get involved with the practice staff.
- Always be positive and proactive, ask questions, build good relationships and communicate with the dentist, the practice staff and patients.
- Appreciate that practical experience in a dental practice, closely supervised by a registered Dentist or a Senior Dental Nurse, who shares their valuable time and experience, will be of great professional benefit.
- Make the most of this opportunity to learn professional skills and apply dental theory to practice.
- Be aware that, at times, the dentist/senior dental nurse may be unavailable to teach. Students should continue to demonstrate initiative and willingness to learn by using this time to research any questions, interact with other staff and make discrete observations. *Never hang around waiting for something to happen, always look busy*.
- Keep a *note book* for things to remember and reflection on the day to day activities – do not record personal patient details.

Dental Nurse Scope of Practice

Dental work carried out by a Dental Nurse may only be carried out under supervision of a registered dentist. Subject to the foregoing conditions a Dental Nurse is permitted to carry out perform the following dental work:

- assist at the chairside during all dental procedures;
- prepare surgeries for dental procedures;

- prepare and sterilise dental instruments, disinfect equipment and carry out other infection control procedures following international standards and best practice;
- record dental charting and maintain treatment records;
- support the patient and colleagues if there is a medical emergency;
- assist with the care of patients receiving treatment under general anaesthesia and conscious sedation;
- assist in the taking and developing of dental radiographs;
- record dental radiographs to the prescription of a dentist (having completed a Dental Council approved course in dental radiography);
- give appropriate health promotion advice to patients;
- carry out appropriate clerical and administrative duties.

Dental Nurses do not:

- diagnose disease or treatment plan.

They do not undertake any of the skill areas described in the Scope of Practice document as being reserved to Dental Technicians, Clinical Dental Technicians, Hygienists or Dentists (Dental Council of Ireland, Scope of Practice, 2010).

APPENDIX 5

DUBLIN CITY UNIVERSITY

Plain Language Statement

I. Introduction to the Research Study

As part of my Doctorate in Education with Dublin City University (DCU). I am carrying out a study on graduates' experiences, views and perceptions of Professional Practice Placement (Work Placement Experience). This information sheet will inform you about the study. Principle Investigator: Professor Joe O'Hara, Dept. of Education Studies, DCU. Contact Information: joe.ohara@dcu.ie.

II. Details of what involvement in the Research Study will require

The aim of the study is to evaluate the lived experience of graduates who have completed the Dental Nursing Programme at AIT, specifically the professional practice placement element (work placement experience). The purpose is to gain a better understanding of the work placement experience, and to see how we can learn from their experience, views and perceptions in order to better understand and gain knowledge of this practice with a view to improving the work placement experience. The findings of this research study might give a better understanding of the experiences of professional practice placement drawing on academic conclusions to inform 'best practice'.

Your involvement in this research study will be voluntary. There are three phases to this study. The **first phase** is an on-line online questionnaire, consisting of 10 questions once completed you will be asked for your name and email address to confirm your progression to phase two. **Phase two** consists of a focus group, this will be compiled via Skype, at the end of this stage you will again be asked if you want to progress to phase three. The final stage is **phase three,** this is an individual one to one interview again undertaken via Skype. Graduates can at any stage decide to opt out from participating in any phase of this research study. The purpose of the three phases is to elicit detailed and in-depth information on

the lives and the lived experience of graduates who participated in a work placement experience as part of the dental nursing programme at AIT.

III. Potential risks to participants from involvement in the Research Study (if greater than that encountered in everyday life)

There is little possibility of any physical risk as a result of participating in this research study. The graduates are not asked to perform any tasks as part of the survey or interview that could result in physical harm. With regard to Phase One, the Consent Form will be at the initial stage of the questionnaire on the introduction page (brief format). Once the graduate proceeds and clicks on the "**NEXT"** button, they are indicating their understanding and willingness to complete the on-line questionnaire. This will be clearly stated. The graduates are also informed that should they wish to have the full and detailed version of the Plain Language Statement, that it will be made available to them via email on request. Graduates can at any stage refuse to continue to be part of this research study and that the information provided will be kept in the strictest of confidence. The graduate will be made aware that their participation in this study will be recorded (audio) and if they feel uncomfortable at any time, they can ask that the recording equipment be switched off. Once the researcher is finished transcribing the interviews, the data and recordings will be kept securely for four years and after that time, the data will be shredded, and audio files deleted. If a graduate is upset by questions that they are asked when thinking about your experiences, support is available to them. The research will be cognisant of this, at all times, and will ensure that they are not made to feel uncomfortable. Should this upset occur, the researcher will actively work with both the graduate and support services available to ensure that issues for them will be resolved before the research is completed. The graduate will receive phone numbers and email addresses of these services (e.g. Student Support Services, Guidance counsellor). Confidentially will be ensured when presenting the findings of the research, pseudonyms will be used where necessary.

IV. Benefits (direct or indirect) to participants from involvement in the Research Study

The findings of the study might help to better understand the experiences of professional practice placement (work placement experience) from the perspective of the graduates who completed a work placement element as part of the dental nursing programme at AIT. It is anticipated that academic conclusions to inform 'best practice' will be obtained.

Reports or publications based on this research will use mainly group data and will not identify you or any individual as being affiliated with this project. However, quotes from qualitative data will appear in the research findings and it may be possible that participants could be identified by, for example, a turn of phrase but that any explicit identifying features will be removed. Participants can view their transcripts before the research findings are published.

V. Advice as to arrangements to be made to protect confidentiality of data, including that confidentiality of information provided is subject to legal limitations

The responses to the on-line questionnaire and interviews will be held in the strictest of confidence, they will be doubly password protected and only the Principal Investigator and the researcher will have access to them. Confidentially will be ensured at all times, when presenting the findings of the research and pseudonyms will be used where necessary. It is the researchers' intention to ensure confidentiality and anonymity in accordance with the guidelines set out by DCU and AIT and within the limitation of the law. However, it is possible for data to be subject to subpoena, freedom of information claim or mandated reporting by some professions. Additionally, with online questionnaires there is a chance that data could be retrieved by an external source and that the respondents could be identified by the IP address or other electronic record associated with the response. The researcher or anyone involved with this survey will not be capturing that data. Any reports or publications based on this research will use mainly group data and will not identity any individual as being affiliated with the research study.

VI. Advice as to whether or not data is to be destroyed after a minimum period

All results will maintain the confidentiality and anonymity of the individuals involved. No data that could identify the participants will be included in the findings. The graduates who take part in the in-depth interviews will be offered the opportunity to view the results should they wish. Once the researcher is finished with the transcripts they will be stored securely for 4 years, and after the 4 years will be shredded and the audio files deleted.

VII. Statement that involvement in the Research Study is voluntary

The graduates' participation in this study is voluntary. Graduates can refuse to continue to be part of this research study at any stage; information provided by them will be kept in the strictest of confidence.

VIII. Any other relevant information

The graduates of interest are those who registered with the Department of Nursing and Health Sciences, School of Science, Athlone Institute of Technology. It is not feasible to interview all graduates therefore, it is hoped that at least 10% of graduates will volunteer for interview. Should any more than 10% of the graduates express an interest in taking part in the research, the researcher will randomly select the graduates based on a lottery system. The researcher will inform the graduates that are not being selected for the interview by e-mail and reassure them that this will have no impact. Gender, ethnicity or religious beliefs of graduates is not relevant for this research, so all graduates will be invited to participate. Graduates will be sourced by posting a message on Facebook outlining the purpose of the research. Consent will be obtained by the graduates progressing through each stage. With regard to the on-line questionnaire, graduates will be notified before the start of the survey if they progress to the "**NEXT"** step they are confirming their willingness to complete the online questionnaire. With regard to the focus group, graduates will be emailed the "Plain Language Statement" and "Consent Form" once they submitted their details (name and email address) from phase one (online questionnaire) to the

researcher. By submitting these details, they are confirming their intent to progress. The same applies to the one to one interviews consent to progress will be obtained. Graduates at any stage can opt out if they wish.

If participants have concerns about this study and wish to contact an independent person, please contact: The Secretary, Dublin City University Research Ethics Committee, c/o Research and Innovation Support, Dublin City University, Dublin 9. Tel 01-7008000

Dental Nursing Placement: Graduates On-line Questionnaire:

The following questions are designed to gather a rich in-depth understanding of the dental nurse's individual experiences of work placement, which was an element of their third level dental nursing programme at AIT. The questions are designed to encourage open-ended in-depth answers.

There are 25 questions in total some requiring Yes/no answers, others needing more thought and in-depth answers. I would ask you to please think carefully about your answer and please fill out all parts.

Confidentiality Statement
This survey is part of an exploratory study for an Ed.D (Doctorate of Education) thesis. All personal information will remain confidential. Names of participants will not be used.

_____

Please tick the appropriate box ✓

Section One – Profile of Participant:

Dental Nursing Graduates

Q1.   Gender: Male [ ]   Female [ ]

Q2.   Nationality: Irish [ ]   Other [ ]

Q3.   Age: <20 [ ]   20-30 [ ]   31-40 [ ]   41 + [ ]

Q4.   Home Location   Rural [ ]   Urban [ ]   County [   ]

Q5.   Why did you choose to undertake dental nursing as a career choice?

Please explain:

Section Two: Work Placement:

Q6

    a) On applying for the dental nursing programme were you aware that work placement in a professional practice was an element of the programme?

                              Yes [ ]   No [ ]

    b) Reflecting back, did you have any worries, concerns or fears with regard to the Work Placemen element?   Yes [ ]   No [ ]

Please explain:

a. On reflection did you enjoy your experience of work placement

                              Yes [ ]   No [ ]

b. What made the experience enjoyable or not?

Please explain:

Section Three: Practice Staff

Q7. a. Did you get on well with the staff in your work placement practice?

                              Yes [ ]   No [ ]

    b. Were you made feel part of the team   Yes [ ]   No [ ]

    c. Were you included in external activities such as lunches, nights out, etc.

                                Yes [ ]   No [ ]

8. Did you have to deal with difficult staff?   Yes [ ]   No [ ]

> **How did you manage difficult staff?**

Q9. Did the dental practice specialise for a particular profile of the general public?

General [ ]   Geriatrics [ ]   Paediatrics [ ]   Special Needs [ ]   Other [ ]

> **If other, please give details**

Section Four: Placement, Training and Experience:

Q10. Has work placement been of benefit to your learning?

Yes [ ]   No [ ]

> **Explain your answer:**

Q11. Did you feel you were challenged and exposed to skills and techniques?

Yes [ ]   No [ ]

Q12. a. Did you feel you could have completed more tasks, skills, etc.?

Yes [ ]   No [ ]

b. Did you feel confident in what you were asked to do?

Yes [ ]   No [ ]

c. Did you ever feel you were asked to do more than you were able to do?

Yes [ ]   No [ ]

d. Did you feel the work day long?

Yes [ ] No [ ]

Q13. Did you like dealing with the patients? Yes [ ] No [ ]

Why? Please explain

Q14. Did you have to deal with challenging or difficult patients? Yes [ ] No [ ]

How did you manage, explain?

Q15. Who allocated your daily tasks Dentist [ ] Senior Dental Nurse [ ]
Other [ ]

If <u>other</u> please state:

Section Five: Reflecting on your Work Placement Experience:

Q16. Did you enjoy your placement? Please circle (or highlight) the appropriate number (**Number 1** representing **strongly agree** and **number 5 strongly disagree**)

1 2 3 4 5

Q17. Indicate your level of exposure   Please circle ⭕ the appropriate number **(Number 1** representing **high level** and **number 5 low level**)

1	2	3	4	5

Q18. In your own words can you describe your feelings on practice placement?

Q19.

    a. Currently the practice placement is structured so that your placement starts with one day a week initially, followed by block placement, total of 40 days

    b. Was 40 days enough time?   Yes [ ]   No [ ]

    c. Did this structure suit you?   Yes [ ]   No [ ]

Why? Explain your answer

    d. How would you change it?

Explain

Q20. Did you feel you have gained experience and learned from the work placement, Yes [ ] No [ ]

In your own words, explain that experience/learning

21. If you were to make changes to the work placement module what would you suggest?

Section Six: The Workbook

Q22.

a. A workbook is required by each student to be completed and signed off by the practice dentist or a senior dental nurse.   Did you feel annoyed having to complete the workbook Indicate you level of annoyance. Please circle ⃝   the appropriate number (**Number 1 representing high level** of annoyance and **number 5 low level** of annoyance)

1   2   3   4   5

b. Would you have preferred if the workbook could have been completed online? Yes [ ]   No [ ]

Why? Explain your answer

Q23.

A number of competencies/details/examples were required to be completed in the workbook

Did placement prepare you for:

Managing Patient Records,   Yes [ ]   No [ ]

Cross Infection Control,   Yes [ ]   No [ ]

First Aid and Emergencies in the Dental Surgery,   Yes [ ]   No [ ]

Manual Handling,   Yes [ ]   No [ ]

Dental Radiology,   Yes [ ]   No [ ]

Prevention of Dental Disease,   Yes [ ]   No [ ]

Dental Materials,   Yes [ ]   No [ ]

Isolation Procedures,   Yes [ ]   No [ ]

Local Anaesthetic   Yes [ ]   No [ ]

Chair Operation and Function,   Yes [ ]   No [ ]

Reception Duties   Yes [ ]   No [ ]

Clerical and Admin Duties   Yes [ ]   No [ ]

Q24. Can you describe what you liked best or worst about the practice placement?

Q25. Is there anything else you would like to add or share with regard to work placement?

Finally, I would like to say that this is of great benefit to me and my research and I would be delighted if you would take part in further research on work placements.

If you would like to contribute, please give your name and mobile number below. You will be contacted at a later date.

Please Print Name _____

Mobile No_____

Thank you for your time!   Miriam

Reflection

Tuesday 26th July 2016

I may further contact with other graduates, each day I sent a message to approximately 3 graduates

I had an interview with ██████ today and it went very well.

Today I have also realised that the majority of graduates are at an age where they are getting married, having babies or travelling the world and I'm finding the pressure of locating, contacting and getting an exact date and time suitable for interview really frustrating and tiring.

Wednesday 27th July 2016

Interview with ████████ at 6.15pm again went very well, personality is one area that keeps coming up also the fact that placement is so important. When ██ was completing her qualification in Dental Nursing and also her placement, the dental suite was not available, so therefore she felt she missed out on knowing the basics before attending a practice. It was in the practice during work placement she learned all the practical elements

And ████████████ at 7.10pm again a very good interview █████ highlighted the area of community learning where she learned just as much from the dental nurse in the practice as she did from the dentist. As her practice was new to taking on students, the dentists was apprehensive about letting her attend chairside, it was only when the dental nurse was there with her she knew she was capable and also that was the only way she would learn.

Very informative and interesting.

With the bank holiday coming up its difficult to get anyone, however I have one lined up for tomorrow after lunch and two for Monday

Interview with ██████████ went extremely well. She is after moving back from Australia where she spent four years. She was so engrossed with telling me all about Australia and how Irish graduates are the most sought after dental nurses. In fact, her stories reminded me of ██████████ she too commented on the popularity of not only Irish dental nurses but AIT dental nurses. ██████ went on to tell me about a seminar and training (Prime Practice) where dentists of all nationalities wanted Irish nurses, because of their training (they couldn't believe the training they receive from a 2-3-year programme), reliability and caring nature towards staff and patients.

██████ explained that her employer would have paid her $10,000.00 toward an apartment if she wanted to say, the dentists would pay you anything to ensure you didn't leave. The reason for leaving Australia was that she wanted to get home to her native ██████ and had made up her mind that the time was right to leave.

What a great opportunity if you wanted to travel!

This will definitely be one story for the Dental Nurses Association Newsletter I will be telling for the Autumn newsletter.

3rd August 2016

I am just after completing an interview with ██████████. She was very informative and told me that when she was doing her placement, they [the class] felt very unprepared when attending placement and that while she was lucky with her placement others were not. She said a dental nurse should be employed or at least do guest visits to student nurses because it's the dental nurse who attends the patients most of the time. She agreed to come in a talk to the current first and second year students.

8 August 2016

I am progressing at a slow pace and while I intend to make at least one to two call per night it not working that way

The interviews continue as follows each reiterating the fact that placement was an integral part of their learning. While they acknowledged that the learning in the classroom was necessary thy felt the real learning or the better understanding happened on placement where they were allowed to put into practice in a real-life situation. While some procedures were carried out in the on-site dental suite based in AIT, they worked on one another and not on the general public.

The Focus Group

I took a break returning back to work on September 5th, where work was very busy until **Thursday 29th September** where I will able to complete a focus group with 9 graduates of the dental nursing programme. For convenience, the focus group took place on the grounds of AIT in a classroom and while the participants were allowed to sit where they liked, an attempt was made to keep them as close as possible to the laptop which was recording the conversations. It was necessary to promote a casual relaxed atmosphere so for that reason participants were allowed to bring tea/coffee or food with them, this was to create an environment of casual chat rather than a Q&A session.

This discussion proved to be beneficial as it not only highlighted the pros and cons of work placement but they also discovered the word hindsight. The graduates talked openly about what they were sorry about, now that they were older and wiser and now that they know the direction they would like to go, feel they could have pushed themselves further in finding more suitable work practices. The felt they took the easy option and a returned to a work placement because it was handy, they got paid summer work and weekend work and it was close to home. When in actual fact they should have looked for practices, private

and specialised practices, which is something they had an interest in persuading for this their third year add on programme. I think they finally realised they that placement was of huge benefit to them but something they must steer in order to gain the best possible experience.

The focus group was running fine, Im not sure what I was expecting. They spoke openly but tended to answer common questions together especially one that required a yes/no answer, some would describe, some didn't, and while I probed for further explanations to an answer, some were still reluctant to clarify. I didn't pursue a question, I felt they didn't want to answer as they may had led to a manufactured answer, one they thought I might like to hear.

As always in class some are eager to talk, others not so much, so on occasion I would ask for clarification or their perspective to our discussion. During the conversations it became very clear to me that the graduates reflection of their experiences was an awaking not only for me but themselves. They had probably not thought about PPP since they left the college, it was only as they though back and reflected that things became clearer and they had a better understanding and even though one graduate didn't like her first year experience she on hind sight thought she learned from the experience.

22nd October 2016

Up until now work has being extremely busy and I have been unable to make any progress with work. After talking to my supervisor via email. I had asked if I should continue with interviewing the dentists he recommended I should just so as to get the perspective from all stakeholders. I am very worried about this because these particular stakeholders are the most difficult group to get to talk to, reason; time is money, it is difficult to meet with them even in connection to a student whom they have taken on placement, so I'm worried I wouldn't get anyone to partake and won't get satisfactory answers. The part of the research I was most looking forward to, is turning into the most time consuming and difficult.

Questionnaire for Dentists

Doctorate of Education Research - Professional Practice Placement (Work Placement Experience)

Dear Doctor,
As part of my Doctorate in Education with Dublin City University (DCU), I would like to investigate the views and perceptions of Dentists who took on an AIT Dental Nursing Student on Work Experience Placement. It is hoped that the findings of this research study might help to have a better understanding of the experiences of work placement and to draw academic conclusions to inform 'best practice'. Your participation is completely voluntary, and your responses will be held in the strictest of confidence. The information that is collected will be kept private and stored securely and safely. A participants name will not appear on any information. Confidentiality and anonymity will be ensured when presenting the findings of the research and pseudonyms will be used where necessary. Reports or publications based on this research will use mainly group data and will not identify an individual. Quotes from this survey may appear in the research findings but individual identifying features will be removed. The information that is gathered in the study will be kept for four years. After this time, it will be destroyed. Once the researcher is finished with the interview transcripts they will be shredded immediately. Your time in completing this short survey is very much appreciated. It will take approx. five minutes to complete all questions. If you have any concerns or questions please contact me directly via email moconnor@ait.ie

On completion, please return to student!

For this questionnaire

Clinical skills (as per AIT Student Work Book) are deemed as:

1. Cross Infection Control (In accordance with the Code of Practice Dental Council 2015)
2. First Aid and Emergencies (Emergency Kit and protocols)
3. Dental Examinations (Medical History and recording and charting of Teeth)
4. Dental Radiography (Health & Safety, Processing and Developing)
5. Chairside Assistance

Soft Skills (as per AIT Student Work Book) are deemed as:

1. Clerical and Reception Skills (checking patients in/new patients'/appointment diary/telephone skills/paperwork/treatment and cost plans/ stock control and ordering).
2. Professionalism (with regard to self-presentation, patients, staff/management)
3. Communication (face to face, phone, written)
4. Personal and Professional Attributes (respect, enthusiasm, efficiency, confidence, ability to work on own initiative, handling stress, accepting responsibilities, positive body language and behaviour)

Please circle ◯ or tick ✓ where appropriate

1. Clinical skills are more important than soft skills

   Strongly agree   /agree / don't know   / disagree   / strongly disagree

2. Which nurse would you choose **A** or **B**
   a. Dental nurse with little knowledge of clinical skills (a willingness to learn) but had excellent soft skills.
   b. Dental nurse with excellent clinical skills but poor soft skills   A [   ]   B [   ]

Why?

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3. Clinical skills should be the main focus for the student on placement?

   Strongly agree / agree / don't know   / disagree   / strongly disagree

   Comment

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┌─────────────────────────────────────────────────────────────┐
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│                                                             │
│                                                             │
│                                                             │
└─────────────────────────────────────────────────────────────┘
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4. A student dental nurse can learn the necessary soft skills required?

   Strongly agree / agree / don't know / disagree / strongly disagree

   Explain your answer:

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┌─────────────────────────────────────────────────────────────┐
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│                                                             │
│                                                             │
│                                                             │
│                                                             │
└─────────────────────────────────────────────────────────────┘
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5. A work placement element is necessary for every student dental nurse?
Strongly agree / agree / don't know / disagree / strongly disagree

Why?

6. Page one lists the necessary Clinical and Soft Skills required for dental nursing. Can you provide us with a set of identifiable skills you believe are necessary and should be developed in placement?

7. Do you think the placement experience prepares graduates for employment?
YES [ ]   NO [ ]

Explain your answer:

Any other comments

Many thanks for your time,

Miriam O'Connor

Q1. Why did you choose to undertake dental nursing as a career choice?	
Q2. When you applied for the dental nursing programme at AIT, were you aware that professional practice placement (work experience) was an element of the programme?	
Q3. Reflecting back, did you have any worries, concerns or fears with regard to the work experience element?	
Q4. Was the work placement experience of benefit to you learning new skills? If your answer is YES. How was it of benefit? If the answer is NO Why not?	
Q5. Did you feel you were challenged and exposed to new skills and techniques while on work placement?	
Q6. Did you enjoy work placement?	
Q7. List one word that best describes your thoughts or feelings when you think of work placement.	
Q8. Did you feel that the theory and practicals undertaken in the Institute provided you with a good foundation for what you needed to know and be able to do when on work placement?	

Focus Group

Question	ALL	K	An	Aoi	Reb	R	E	And	L	T	
Q1 tell me about your placement		better variety required	learning		private practice can be difficult if small						variety needed in practices
Q2 do you think the time limit might be too short		wont get to see much on Fridays	need to go to a different practice each week	change day from Friday to Monday							changes needed
Q3 did you think placement was of benefit overall?	ya					better understanding once in placement					Need for practical experience
Q4 Would you have gone out [to placement] earlier if you had the chance as in maybe first year, you don't go out until January, would you have gone out maybe in October/November do you think would that have being of any benefit?	yes				yes	yes would have made more sense					liked to start placement earlier
Q5 you see the difference you are third years now, should we have asked you to go to a different practice in year 2 do you think	ya	should be compulsory	make it compulsory		should have made more of an effort	didn't want to leave after year 1	went to different practice in year 2 different experience				change practice in year 2
Q6 so would you have said to me in first year that you didn't like a practice if you didn't like it? Why?					like my practices		no thought it was me picking her up wrong				change if needed
Q7 the placement you think prepared you for employment would that be a fair statement to make	ya										Need for practical experience - preparation for employment
Q8 and are you employed now	on a part-time basis during the academic year										part-time during academic year
Q9 [Placement] it was a good stepping stone to employment do you think?	ya										yes
Q10 so when you went out on placement were you able to link the theory you had learned here to the practical work that you were doing in practice in your placement, were ye able to link that, had you a better understanding	ya										yes
Q11 and why was it clearer, you have the dental suite upstairs, why was it different?		way more in the practice			actually happening [real life]				real life situations, real life people		real life situation in practice
Q12 so what else could you do								practice more phone work			more phone work
Q13 Do you think we should have told you more about what to expect when you go out on placement for example jobs that you might have to do like cleaning the floors, cleaning the toilets that type of thing did any of ye have these jobs to do?	ya										yes
Q14 how do you feel about them? Additional jobs		minor jobs	get on with it	small practice you have to do it	tell us more what to expect	didn't like it	no		as a student you start from the bottom its expected didn't affect me		no big deal
Q15 do you think to when we are there job placement	ya	should be there for we are there job placement									yes
Q16 did you all choose your own practice	yes										yes
Q17 those of you that did in hind sight now if you were to start year one again would you go back to it	ya										yes
Q18 so those of you who would go back to your practice again why would you go back?	ya			the dentists		the dentists and staff					yes the staff

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Question										Theme
Q19 OK were there any challenges in your placement, some students in your class may have children and therefore had to get the children out to go to school before they started placement, some might have had to travel some distances, some might have had to get buses cross over to another bus in order to get to work, did you have any such challenges			in first year I didn't have my licence, so Id get my mam to come in and out with me		transport needed a lift		transport needed to get a lift			outside challenges - transport
Q20 so all in all Placement was a good experience yes or no	yes									yes
Q21 ok and for this year now in your third year do you have a better idea better scope or better plan in your mind as to what it is that you want to do?	yes									yes
Q22 ok but is that because of the placement you have completed that it has helped you	yes									yes
Q23 were there any difficulties with patients where they saw you as a student because of your uniform and therefore said I don't want to have a student with me, was there any one?	with staff	is she qualified to talk	dentist made an issue to patients [not to mind her]							Challenges with staff and patients
Q24 but the general public, you think were fairly good to you	ya			they trusted us						yes
Q25 right do you think that some of the staff that you might have worked with had lesser qualifications than you might have had; if so do you think that was an issue, with them					one member of staff had no qualification s					challenges with staff and patients - qualification issues
Q26 overall did you enjoy your work placement	yes									on reflection - good experience
Q27 anyone who didn't?			I didn't enjoy second year but enjoyed first year an am going to go back							
Q28 what word would best describe your thoughts and feelings about placement	welcoming	great	Patients	educational	tiring sometime	enjoyable	Respect	Understanding	Challenge	positive
Q29 did I warn you about the first week, that you would be exhausted	oh God Ya									
Q30 did you bring note paper and pen with ya?	ya									
Q31 so if you were given the choice now and each of you were asked what would you change about placement, what would it be	ya very uncomfortable trousers		uniform, the pants are really uncomfortable							uniform

Themes	1 Louisa Kelly	2 Katie Doyle	3 Bernie Fahy McGinley	4 Orlagh Pettikrew	5 Laura Keane	6 Tanya O'Grady	7 Laura Dunning	8 Martina O'Gara	9 Majella Quinn	10 Eileen McGlinchy	11 Ria Fanning	12 Marguerite Fenton	13 Peig Fox	14 Rachel Clafferty	15 Sarah Jennings		
Q1 - looking back on your placement year 1	different	great opportunity	I thought it was a great experience	got on extremely well	well in my opinion the work placement was very beneficial it definitely did a lot	first time to be out, no nurse (to meet and show around) was thrown in the deep end; looking back probably was the best thing it was	unprepared a bit of a shock	intrigating with a team	great	apprehensive	was working there	very handy	dental placement enjoyed it	overall had a very good experience generally		on reflection - placement good experience	VIEWS
Q2 - Feelings	daunting	nervous and afraid to make mistakes	fantastic experience, very positive	nervous but enjoyed	confidence	vunerable, daunting, too afraid	enjoyed	scary	Great	very lucky	enjoyed	apprehensive				mainly positive words in relation to placement	VIEWS
Q3 - educational (link from classroom to placement)		you learn	doing and re-ring with you on	better knowledge, interested in what i have	well theory can relate to job	you relate what is on the current	in placement where Louise came together	you need the Nolduen	I've know the	you learn	part of theory then practical on	the theory came together	I am a practical learner -the jig saw came together made learning in the classroom easier	learning all this stuff, but once we saw it applied you got to see how it was beneficial but before I think if I didn't go out to placement I would have thought there was no need to learn all the stuff		all learning	PERCEPTIONS AND EXPERIENCES
Q4 - Is placement necessary	necessary for all programmes	you get the opportunity to practice	definitely 100%	definitely	definitely better understanding in placement	definitely	definitely	its major	very when you are learning stuff when you were actually in the surgery and you were like right this is what they were talking about or that you	gets you on the ladder, course wouldn't work without it	brilliant give a great insight	good idea	it was a big eye opener, but you can nearly visualise what the lecturer was talking about	Placement was a massive benefit		need for practical experience - placement is necessary	VIEWS
Q5 - did placement prepare you for employment	definitely 100% vital element	indifinately did	definitely	yes yes absolutely	I got a summer job and experience	yes definitely that's how I got my job	yes still working there	ye	ya because you had to bring a bit experience	ye 100%	big benefit	oh ya definitely	it did and it didn't absolutely it makes you independent			need for practical experience - prepared for employment	ASSUMPTIONS
Q6 - were you prepared better for yr 2 placement	more prepared, picked things up quicker more comfortable, grasped things easier, learned about different diets, had a great grounding of information, very educational but you gain more confidence	better for learning and remembering	wasn't afraid to ask questions and use my initieve, might be my age			first placement vunerable and out of my depth	first placement I did feel a bit over my head					to be honest I just went in with an open mind really you know	second place was much better, the girls were brilliant			better-prepared	ASSUMPTIONS
Q7 - assumptions		thought I would have to jump in straight away	no assumptions	no assumptions												no assumptions	ASSUMPTIONS
Q8 - Other (help, guidance, support)	they were	note book	But the great thing about Athlone as well, we were only a small group of people, there was only 28 of us and everyone got on, so everyone helped out you know as much as we could, we gave her moral support more than practical support but she reckons she	No I found it easier doing it in practice and then coming into class and just even from the fact that you were able to talk about it as well with the other girls as well helped	I was very very lucky where I was they helped me a lot they kind of taught me as well throughout the year		I really enjoyed my work placement you know I had a very good practice you know there was very nice staff there and the dentist and the oral surgeon that I worked for were great they were very nice and helpful	she had taught me a lot and we never fell out because you like we could ring you any time if we did have any trouble so we always knew that ye were there as a support group for us					I found the work experience for me I think it was too short	she was brilliant for just like talking me through absolutely everything I learned an awful lot there and I think if I actually went to placement first I wouldn't have needed, I would have actually needed to open an awful of books		additions	VIEWS
Q9 - challenges (issues) - with dentists, staff or patients	none	no challenges	no problems	no problems	no challenges	no challenges	no	no	no	no	no	no but sometimes trying to fit in with other women	no challenges	just very hard because when you work with someone as closely as you do as a dental nurse and a female, they take a lot out of you like a mini marriage and they really take an awful lot out on you and they expect you to just take it as I think, you need to learn how to deal with		no challenges with staff in practice	VIEWS
Q-10 did you feel intimidated by dentists or staff																	VIEWS

Q - 11 is your personality an important factor	yes	ya	definitely	ya	probably	probably	i think so	i think so	ya get stuck in	i think so	ya i think so	yes it's a bit thing	that i would ask questions about things i wanted to know [0.08] you know i was inclined to do that, where some of the rest of the class might not be in the same way)	personality a big part	views
Q11	personality i guess as well as confidence but also i think it's very important if you have and you a nice placement, personality as well you kinda need to think back and think im doing this for a reason	ya i would no, if someone asked me to do anything, so be just alright it just do it	definitely down to my personality and definitely because i was a more mature student	ya probably is to be honest	i wouldn't really mind because i guess that's what happens to you isn't it when you go out on placement i you kinda have to do and then i wouldn't really pass any head on that to be honest i i didn't mind that	i think so i would say im quite an easy going personal i like i really don't question if someone tell me to do something in work		it has to be understanding and clear and you have to be able to work in a group and to work with in a team	exactly just get stuck in and get on with it you know i never had any issues you know i wouldn't be talking just treat everybody the same	i think your personality does have to be a big part of what you do	personality plays a att-role in how you get on really doesn't it	you have to be outgoing you have to put yourself out there, really be, friendly towards others		well i like i would be very strong personality, very outgoing personality and that can be good and that can be bad	
Q12 - other challenges	transport ation	none	no	no				no	i was travelling for three years but i have found that was an hour and a half up and an hour and half home and the rest of that, i had a husband and two teenagers with me that would have been going through that moving...	no	no	yes could be taken advantage of by dentist	the closest dentist is an hour away so i had to travel an hour, i never obviously never got any expenses	outside challenges - transportation/taken a...	views
Q13 - were you prepared for additional jobs such as cleaning toilets etc	it didn't bother me	it was fine	no problem with that	never had to do it	i was comfortable enough doing them	i wouldn't really mind		i don't mind doing those jobs	its part of the job	its part of the day to day running of business	it depends on the person	tasks like that shouldn't be thrown on you	i didn't mind it to be honest i just went in with an open mind anyhow	didn't mind extra tasks	views
Q14 - over all did you think the placement was a good experience or not	yes	great experience	definitely more prepared for the real world	yes definitely	i don't think i would change anything	it stood to me		yes you do need the work placement	yes everything came together	i definitely agree	yes it was good	change to half day in reception and then surgery	because you can nearly visualise what the lecturer was talking about if you get me	oh ya i think it would be determinant if ye gave up the placement	good experience
Q15 - how do you find working in Australia	thre are more incentive bonuses, get paid extra if you work past your finishing time	n/a	n/a	n/a	n/a	n/a	n/a	there are some dentists out there who will only employ Irish girls because they say that they...	n/a	n/a	n/a				
Q 16 - How were you treated in Australia	the Irish nurse is well recognised and highly sought after in Australia	n/a	n/a	n/a	n/a	n/a	n/a	lot of them only want Irish out there [australia] they will pay any money, they just want to keep you	n/a	n/a	n/a			great recognition and treated well	
Q17 - Did you find it was a good profession to carry with your for travelling	oh i couldn't recommend it highly enough,	n/a	n/a	n/a	n/a	n/a	n/a	Irish girls that is dental assistants and they are paying can grand to keep them there [in Australia]	n/a	n/a	n/a			good profession to travel with	

Themes												
Q1 - looking back on your placement year 1	different to class in terms of speed and times, a real learning environment	It's a great opportunity, communicating with the patient, you weren't that used to communicating with people one to one	I thought it was a great experience, because no matter what you learned in the class room its completely different when you get into that surgery	I certainly enjoyed the placement, I got on well in my work placement, I got on extremely well, I took the attitude I'm on placement and I'm lucky to have placement one	well in my opinion the work placement was very beneficial it definitely did a lot	the very first day i remember there was no body in the practice that was the first time to be out and I remember there was no nurse or anything like I was thrown in the deep end but now I probably look back and think on probably was the best thing for me but that time it was very like daunting	I think we found that we were a bit unprepared going into work placement like we didn't know what to expect and it was a bit of a shock	we landed there and we had to integrate with a team	the work placement I thought it was great	I was there first ever placement, so they were a bit apprehensive about letting me do things only for the nurse he had was kinda mind strong she let me step in in places	when I got started the course in Athlone I got into my practice working Saturday anyway so I suppose my work placement would have been different to what the others girls in my class because I was kinda working there already because when I took on the course [2.41] I said Id go in a see if I liked it	well the work experience was very handy its better to go out and see and do what you learning rather then reading it when you are actually doing it ?????? sometimes
Q2 - Feelings	daunting	nervous and afraid to make mistakes	fantastic experience, very positive	nervous but enjoyed	confidence	vunerable, daunting, too afraid	enjoyed	scary	Great	very lucky	enjoyed	
Q3 - educational [link from classroom to placements]	[shaded/illegible]	[shaded/illegible]	link a lot of it ya especially where cross infection was concerned, and you learned how to deal with people	I found for example having a better knowledge of fillings and the types of fillings of benefit to me, areas that I needed practice on that weren't covered in college like surgical extractions and bits and pieces but again it was a case of where I said Im interested in this I haven't covered it in college and the dentist was more then...	I learned a lot more should I say in the work placement then in college I got to see everything hands on I got hand on with it so were you able to link then with or was it easier to link what you learned in the college and then bring it to the practice	the theory side is good for knowing what a root canal and crowns are but I guess I think really you learnt the most in the surgery and listening to the dentist	I suppose it is very different than something form a book and talking about it in class and even if there is photos there in the book to show you its still completely different than actually than having to do it in the work place a and it does take you mind a long time for it click together and to put kind of two and two together I suppose it did take time but...	[shaded/illegible]	You know the way when you are learning stuff when you were actually in the surgery and you were like right this is what they were taking about or that you know what I mean	[shaded/illegible]	[shaded/illegible]	ya the pieces come together and you see how you are meant to do it, much easier then to understand the theory and you are more interested in learning it you know its worth while
Q4 - Is placement necessary	necessary element of all programmes	Its brilliant that it gave us the opportunity to go out and practice and you know exactly what a dental nurse does and different experiences of different dentists styles,	definitely, definitely, one hundred percent you are dealing with different people and different types of people so it gives you a good insight as to what you are letting yourself in for	definitely	ya definitely , in college but we didn't actually get to understand it (for me) to understand it until I went to work	ya definitely, placement was the best is where you learned everything and I think well not everything but I mean where you really got in and learned what to do	oh definitely ya Id say I learn more on placement than I did while I was in college the practical side of it obviously	Its major, its absolutely major, like there is so much you can use the lecturers and everything and like that has to be done and It's a big build up for the work experience but you definitely need hand on	yes 100% work placement was great because everything made sense	so that [placement] helps to get you on the ladder as such just practice and getting to know how to deal with the public and how to deal with the dentists and work as part of a team definitely a big advantage, I don't think the course would work as well without it	well it gives you a great insight to see if you like the course or not is it what you want to do, and again that way I think is brilliant that the girls now a days get to start work placement straight away whereas we were at the end of the year	It's a good idea
Q5 - did placement prepare you for employment	definitely 100% vital element	ya it definitely did, because you have the experience already for the two years, had a great reference from the dentists and once they know you have the experience well then that's when they went and said right you can start on this date	[shaded/illegible]	[shaded/illegible]	ya definitely [shaded/illegible]	[shaded/illegible]	[shaded/illegible] well winding there	ya I think like it has made me understand exactly what is entailed [in the profession]	ya [shaded/illegible]	I do ya 100% ya , well without placement you mightn't ya a lot of dental surgery's might not take you until you graduate because you don't have experience from your practice like I said I actually got employment out of it and that stuck to me now	so that's a big benefit I suppose with placement that you do see the career that Ill be doing for the rest of my life	oh ya definitely
Q6 - were you prepared better for yr 2 placement	more prepared, picked things up quicker more comfortable, grasped things easier, learned about different dists, had a great grounding of information, very educational but you gain more confidence	Block placement better for learning and remembering	my eyes might have made a different because I wasn't afraid to ask questions and I wasn't afraid to use my initiative.			I felt the first placement I felt very vulnerable and totally out of my dept	second year was fine because like I knew the way things were going and I worked as dental nurse from first year but (2.58) definitely the first placement I did feel a bit over my head				to be honest! I just went in with an open mind really you know	second place was much better, the girls were brilliant
Q7 - assumptions	[shaded/illegible]	[shaded/illegible]	no, went in with an open mind, I wasn't afraid to ask questions and I wasn't afraid to take criticism	no because dentistry was different to me so it was so I was going in and I decided to be open minded and to take what ever was asked of me, going in, in sort of my first day the only assumption I had was that that I would be stuck at the desk answering the telephone but it simply was not the case at all								

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13
Q8 - Other	[illegible]	note book beneficial	Mix of ages in class was beneficial	In terms of it been one day a week it actually suited me and the dentists perfect. If it had been increased to two days a week that would have been fine but to be there five days a week you know I don't think I would have benefited from it, I liked that fact that I had college and then placement. I found it easier doing it in practice and...	needs more time in dental suite		definitely would recommend it to go to a different practice the only reason I did stay there was because I actually worked (7.16) there					I can be working so many hours because, I worked up to 69 hours one week	
Q9 - challenges (issues) - with dentists, staff or patients	none directly towards me but had a deal with complains in regard to prices, dental related only	no challenges	I had no problem the girls were very good there (in placement)	I got on extremely well with the team of nurses and the two dentists so I had no problems	no challenges	no challenges no I have to say placement was good at least we were allowed to have our placement near to home so it was good I thought from that point of view to be honest its nicer to be nearer to home when you start working like that its like a long day and nice to be able to go home	know I had a very good practice you know there was very nice staff there the dentist and the oral surgeon that I worked for were great they were very nice and helpful	no, I think because it was such a small group that I probably did at the time think it would have been difficult as in as I said like you have your own personal issues and just to kinda blend	no, ah well he was weird he was, he probably took advantage, you know that I mean but he was sick then afterwards he just wasn't that well mentally so but that was his own issues	no I didn't have any issues I actually was very lucky I actually got in total five years of employment out of them between keeping me on and summers that I had been there on placement previous and then and you know and then it turned into maybe two days a week Thursdays and Fridays I used to work there so I was very lucky	no mine was pretty straight forward like where I got my placement in my local town, I know when I went on placement it might be quite bitchy I think the manager got me to go out and varnish the plaque outside the door which was completely irrelevant but again I didn't mind I was easy going I didn't mind you know	sometimes it might be a bit challenging trying to fit in where full of women (female employees - dental staff)and it might be quite bitchy I suppose towards the new people that come in because maybe they feel that your are a treat but some of them might get a warm welcome	for me my biggest challenge was where I am from... the closest dentist is an hour away so I had to travel an hour. finding placement was hard
Q - did you feel intimidated by dentists or staff	yes but one one person made me feel that way it was because I was young and getting used to the whole work environment / athmosphere and being a new person	no	I know for a fact I got great back up.	I got on extremely well with the team of nurses and the two dentists so I had no problems that way	I was very very lucky where I was they helped me a lot they kind of taught me as well throughout the year	the very first day I remember there was no body in the practice that was the first time to be out and I remember there was no nurse or anything like I was thrown in the deep and	not me personally not where I was working thankfully	no no never been intimidate by them		no I never had any issues not every dentist is like that but he just wasn't well himself	ah ya you have to strong wiled, you have to first of all be able to stand up for your self and second of all not to take it to heart because it is quite a stressful job at the end of the day but you can be anyway soft	no I wouldn't have	ya and I feel that they might play a huge role in some fitting in to the work place (intimidated) If they like it then or not because if you felt it somewhere and someone was ?????? you might change your mind and then say ??????
Q - is your personality an important factor	[illegible]	ya! I would do, it if someone asked me to do anything, Id be just alright Ill just do it	definitely my personality and definitely because I was a more mature student		ya probably is to be honest	probably	I think so		I think so it has to be understanding and clear and you have to be able to work in a group and to work with in a team	Just get stuck in and get on with it you know I never had any issues you know I wouldn't be talking just treat everybody the same	I think your personality does have to be a big part of what you do	ya I think so, personality plays a bit role in how you get on really doesn't it? but I suppose the last person in does get kinda the messy jobs, and like I was I was put cleaning you know mop the floors, cleaning out cupboards and everything but I suppose it does it just didn't bother me, it was like I could see they slightly are probably using you a little bit	yes it's a big thing (personality) as well, you have to be outgoing you have to put yourself out there, really be friendly towards others and ask questions, some of them love for you to ask questions because they feel like they are teaching you
Q12 - other challenges	transportation - not knowing if the bus was going to be on time	no I had no challenges	no, placement was only 10 minuts from home	no mine [placement] was based in Mullingar			no		i was travelling for three years but I have found that was an hour and a half up and an hour and half home, and the cost of that. I had a husband at that stage and two teenagers with one that would have been going through the leaving cert and one was going through inter-cert	no	no I was only maybe five minutes in the car to get to placement so it was very convenient to me. ah no the only other one as I said was that we didn't have a dental surgery at the time that we didn't that would have been a big advantage to us		people(employers, dentists) can be taken advantage of really the long day and covering for other people, well in first year I didn't drive so I was dependent on lifts and buses and all that it wasn't too bad
Q13 - were you prepared for additional jobs such as cleaning toilets etc	[illegible - would have liked to be more aware of having to do additional jobs...]	[illegible] it was fine for... I wouldn't, I never had... anyway doing it,	well I had no problem with that	well to be honest I didn't do any of the it cleaning toilets and stuff I never ever did that job and that believe it or not,	ya i found comfortable enough doing them happy enough doing them and reception work as well you know it all comes with it	I wouldn't really mind because I guess that's what happens to you isn't it when you go out on placement you kinda have to do and then I wouldn't really pass any heed on that to be honest I didn't mind that		I don't mind doing any of the extra chores, you have to keep busy	I just seen it as part of the job	[illegible dark cell]	like do you know when I had to go out and varnish the plaque it only took half an hour I was happy to go out into the air and get a change of scenery but you know some people then if they were asked (12.57) they would be like no way this isn't part of my course criteria and you know I suppose it all does kind of depend on the person	[illegible dark cell]	
Q14 - over all did you think the placement was a good experience or not	yes it did i wouldn't be here [Australia] only for it	It's a great experience and it's a great opportunity firstly for learning and everything and what is involved in that job and that course also its give you the opportunity as well that you could get a job out of it	I came out of Athlone definitely more prepared for the real world then Trinity	yes definitely	I don't think I would change anything I liked the fact that it was one day per week when we were in college so you could bring back what you learned to the college and discuss it amongst the rest of us and new ideas going forward as well like	Im glad now I think it stuck to me I have learned and I actually now been the bigger person	ya, you do need the work experience	ya it came together once I was in surgery		It would I definitely agree with that it would, but they [employers in other sectors] are looking for graduates with two years experience stuff like that but its hard to get this experience when no one would take you on	Ya it was good I enjoyed placement I had a laugh I had no problems got on with everyone ya no I loved placement like	I think maybe it would be a good idea if there was changes made you could do a half day in reception, and then in surgery because some practices you could be in surgery the whole time	

Dentists Questionnaire Breakdown

	Strongly agree	agree	don't know	disagree	strongly disagree	22	BREAKDOWN	comments
Q1 Clinical skills are more importa...	2	4	1	12	3	22	15 out of 22 dissagree that clinical skills are more impor...	
Q3 Clinical skills should be the main...	3	9	1	9	0	22	12 of out 22 believe that clinical skills should be the main...	understanding of patients is important... / I agree in part to this statement but i feel covering all soft skills... / clinical skills can be picked up very quickly, soft skills... / a good grounding in clinical skills very important... / I believe you canot do one with the other (both)... / a dental nurse with poor clinical skills is of no benefit... / any health care worker needs to interface well with... / yes soft skills develop with time / can teach some soft skills but a lot is down to the... / clinical skills are obviously important for what you do... / they must work in practices that are followi...
Q4 A student dental nurse can learn...	0	13	5	4	0	22	13 out of 22 dentists believe that dental nursing or dealing studnets can learn the soft...	anybody going into dental nursing or dealing with the public... / to a certain can, extent points 2,3 and 3 i don't think you... / some othest have it naturally, some you... / some othest nurses will never have the... / e if can explain to much but interpe personal skills... / you can learn to much but interpe rsonal skills... / norder to learn soft skills they are somet hing... / but only to a ??????? / you either have it or you don't / that done, I have one person in pratice 10 years, has...
Q5 A workplace element is neces...	14	7	1	0	0	22	21 out of 22 dentists agree or strongly agree	so they can put into practice and see for themselves / DSA is a hand- on job DSA studen ts need to have experi... / it is possible to learn everything in a real world... / I think the practices need more trainin g and guideli... / Real life dentist ry is very differe nt from dental confro... / Acade mic trainin g and roll play useless unless the job... / nothin g like assistin g is a particular sport you can watch practic... / dental assisting is a doing the job particular differe nt ways practic... / open ones eyes to the many differe nt dental nursin g is differe nt... / only way to learn true dental nursin g is differe nt... / obv cant start workin g withou t having been in...
Q2 Which nurse would you choose A or B	a. Dental nurse with little knowledge of...	Dental nurse with excellent clinical skills	no answer			0	20 out of 22 dentists would chose nurse A only 2 didn't know	
	18	2	2			22		
Q6 Page one lists the necessary Clinical and Soft Skills required for dental nursi...						0		communication skills, team work, cross infection control / empathy, patience, kindness to all patients, an understanding for nervous patients, kids and sick patient / if possible studen ts should work in different disciplines of dentistry i.e. oral surgery, ortho and / as listed agree with page one / chairside assisting, i.e. high speed aspiration and preparing for incoming patients, appropriate knowledge / the list overleaf is sufficient / team spirit, trust and good work ethic / good team working ability, especially with other members of staff, reliable good mannerism / confidence, communication / computer skills, word power point, photography and introduction to dental programmes / organisations preparedness ability to anticipate instrument recognition infection control, suction telephone
Q7 Do you think the placement experience prepares gradu...	yes	no	answer	answer	answer	22	21 out of 22 dentists believe that placement experience prepares gradu...	Allows them to see how a working environment functions, allowing insight... / Experience is required / it shows them what real life practice and work is like / Depends on the practice and what the nurse is allowed to do and what treatments is... / Real world experience is essential and an eye opener for students / I think that they need more lecture /practical teaching on course in preparation and... / some students get more out of it than others, some are quick to pick up new information at... / If I had my way it wold be 3/4days placement a week for 2 years and lecture s at... / in part it does expose students to actual work life and expectations but eventually experie... / yes shows them how surger y is ran and also how to communicate with staff and employ... / clinically yes
	21	0	1	0	0	0		
comments						0		

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it possible they should develop both clinical and ...	no soft skills are more important practic es may not...	should be a mix of both	both are import ant				Need for practic al experi ence- Clinic al skills
they can be learnt but must have the opport unity to	difficul t to teach person al and profess ional attribu tes	to an extent but altho g cant be manag d easily	they can be picked up over time but some of...	while clinical skills can be learne d its very hard to teach some	some studen t just have it but some need to be taught how to			Personality
once they have a practic al approa ch, theory makes	its very hard to see the point in a lot of what clinicia ns do	to get experie nce in the dental area and team workin	learnin g on job in practic e cannot be taught in	it eases studen ts into dental nursin g withou t	gives a nurse a good idea of what she is getting herself into	to really get a feel for it, it could show them wheth	to makes sure it is the right role and job for nurse

comm unicati on extract ion forcep s	confid ence ability to cope with a busy stressf ull situati on, ability to deal careful ly and confid ently with differe	good interpe rsonal skills ability to work under instruc tion good hand eye coordi nation patienc e attenti on to	confid ence friendli ness profess ionalis m comm unicati on and clinical skills	no if a dental nurse had each of these skills master ed they would be excelle nt additio ns to any organis ation	I feel like I have circled everyt hing empat hy and unders tandin g	
prepar es them for all aspect s of their career	hands on beats theoret ical learnin g	it shows nurses what goes on in the real world of clinical dentist ry which can	withou t a placem ent modul e studen ts would have no real idea if that field was	work experie nce in any field prepar es then underg raduat e for real life experie nce	definit ely	again it gives the same experie nce of workin g in active surgery