A HANDBOOK AND TOOL KIT FOR TEACHING, LEARNING AND ASSESSMENT IN INDEPENDENT HIGHER EDUCATION INSTITUTIONS IN IRELAND

Teresa Whitaker

Dedication

This is dedicated to all those who teach in Independent Higher Education Colleges in Ireland. We hope this handbook will enhance your teaching and your student's learning.

> The principle goal of education in the schools should be creating men and women who are capable of doing new things, not simply repeating what other generations have done; men and women who are creative, inventive and discoverers, who can be critical and verify, and not accept, everything they are offered
>
> - Jean Piaget, psychologist (9 Aug 1896-1980)

Declaration

The opinions in this handbook are those of the author and may not reflect the opinions of all members of the Higher Education Colleges Association (HECA).

Copyright

 ISBN 978-1-9997543-0-3

Higher Education Colleges Association (HECA)

HECA, established in 1991and with a current membership of sixteen independent colleges, is the recognised voice of independent higher-level education in Ireland. It has made numerous submissions to bodies such as QQI, HETAC, NQAI, DES, and the HEA and has had important inputs into the development of independent third level education in Ireland. HECA organises an annual Conference on various higher-level education topics, such as: Quality Assurance, Education and the Law, and the Skillbeck Report. The 2016 Conference theme was 'Funding of Higher Education – Challenges and Solutions'. This handbook was launched at the HECA Conference (27th April, 2017); 'Demographic Trends; The Urgent Agenda of HE Access'. HECA's main focus today is on representing the independent third level sector by ensuring the highest standards of quality amongst its members. The mission of the HECA Teaching & Learning Committee is to promote the enhancement of teaching and learning within HECA colleges, such that it has tangible effects in the classroom, effectively enabling people to learn, see http://www.heca.ie.

About the Author

Teresa Whitaker is an educationalist, sociologist, and researcher. She is passionate about social inclusion and the transformative and emancipatory effect of education. She believes in the importance of lifelong and life wide learning. Teresa is Director of Research in Hibernia College and Programme Director of the Master of Arts in Teaching and Learning and the PhD programme (with Plymouth University). Her primary degree was from Trinity College (Sociology and Political Science) in 1991; she was awarded a first class honours Master's degree from UCD (M. Soc. Sc. Sociology) in 1995. Her PhD was funded by a scholarship from the Irish Research Council for the Humanities and Social Sciences and the Geary Institute in UCD (2005). She designed and taught an Adult Education course arising from her PhD (UCD 2006). Teresa received an award 'Best Academic Achievement 2015' for the Postgraduate Diploma in Arts in Training and Education and is currently completing a Master of Arts in Training and Education (MATE) in Griffith College.

Teresa is an experienced researcher; she was a project officer for an EU funded qualitative longitudinal study on how children commence smoking; she was a researcher for the National Advisory Committee on Drugs (2006-2009), whose role is to inform government on issues to do with problem drug use in Irish society. She is a registered teacher with the Teaching Council and taught courses on Addiction Studies in the Further Education sector.

Having taught in Irish HEIs since 1991 (TCD, UCD, DCU, SNMCI, Milltown, All Hallows College), Teresa has worked for Hibernia College since 2010, as an author, online tutor, and team leader and member for programme validations and reviews with QQI. She has written modules on Intercultural Education (with Dr Máirín Kenny), Research Methods, and Sociology of Education as well as assessing, supervising and mentoring graduate students. Teresa has presented at national and international conferences. Her publications include peer reviewed journal articles and book chapters and she has acted as a peer reviewer to various journals (see Academia.edu and Research Gate). 2013, she designed and presented a lesson on *Defining Irish Identity* for a Hibernia College 'Massive Open Online Course (MOOC), to celebrate 'The Gathering'; 3,500 learners from 68 countries registered on this MOOC. She is an Associate of the National Forum for the Enhancement of Teaching and Learning, participated in the consultation committee for proposed research on how research informs teaching and is peer reviewer for the Digital Badges. She is Hibernia College's representative on the HECA Teaching and Learning committee.

Acknowledgements

I acknowledge the support of the Higher Education Colleges Association for the funding they provided for this handbook. I owe a great debt of gratitude to the Teaching and Learning Committee for their support and guidance. The idea for this handbook came from Anne Mangan (Chair of HECA, Teaching and Learning Committee), who believed a handbook would be a valuable resource for all new teachers, this idea was supported by Bid O'Connor (Secretary). In particular, I owe a debt of gratitude to Dr Fiona O'Riordan, with whom I was privileged to study, in the Masters of Arts in Training and Education in Griffith College, for opening up my eyes to all the changes in teaching, learning, and assessment in third level education, and for ensuring that students are at the heart of education, by taking a student centred approach. I wish to acknowledge our deceased colleague, Dr Paul Condell (RIP), who was a member of the T&L Committee and whose first consideration, when teaching, was the learner. I'm very grateful to my colleagues on the HECA committee for peer reviewing this handbook and for giving me critical feedback and suggestions for changes: Anne Mangan, Dr Fiona O'Riordan, Naomi Jackson, Ronnie Harrison, Marcella Finnerty, Dr Leo Casey, Sinead O'Brien, and also Dara Cassidy and Naomi Pasley in Hibernia College. Special thanks go to Ben Casey and April Keane for designing the front cover. I'm deeply grateful to Griffith College and Hibernia College for printing the handbook for distribution at the 2017 HECA conference.

I'm also very grateful to my other colleagues in Hibernia College who I have been privileged to work with over the last six years. As a newcomer to online and blended teaching, I am constantly learning new ways of enhancing student learning. I acknowledge all the great teachers I have experienced in my life long quest for knowledge and all the great students I had the privilege to teach. Special thanks go to Dr Bill Mallon and Dr Máirín Kenny who assisted in the proof reading and formatting of this handbook. As always, I am grateful beyond words to my best friend and life partner, David Whitaker, for his love and continued support and belief in me.

Foreword

Today more than ever, students of all ages are attending college to achieve higher qualifications and fulfil their work and life goals. The independent higher education sector continues to change and evolve in response to these needs. Yet despite numerous innovations in policy, infrastructure and technology there is still one simple truth that underpins our education system; it is that the quality of learning depends essentially on the quality of teaching.

Teaching and learning is what we do, it is at the heart of the college experience and there is no substitute for a fully resourced, accomplished teacher to encourage, guide and assess student attainment. Teaching in higher education, whether full-time or part-time, can and should be a life-enhancing, enjoyable and rewarding occupation. As educational institutions strive to provide high quality programmes, they face the challenge of recruiting the brightest and the best teachers. Higher education teachers need to be experts in their chosen field but they also need to quickly acquire the specialist skills and knowledge required for effective teaching. This is especially the case for part-time teachers who bring valuable experience from wider contexts into college classrooms.

It's a curious contradiction to be both an expert and a novice at the same time. Many newly appointed teachers find college settings somewhat daunting; there are specialist concepts, specific ways of doing, and an extensive array of often obscure terminology. Add to this, the challenge of dealing with students who have high hopes and justified expectations of quality teaching and learning environments. Teaching is always a challenge and yet it entices us; you can learn a lot about yourself and your subject area by teaching others. Good teachers are also good learners and quickly adapt and develop in new situations.

Time is the most precious commodity in college life. Everything seems to revolve around timetables and the academic cycle. Once classes are up and running the momentum seems unstoppable and new teachers are required to keep up with the pace. So here's the thing - and I can say this based on my own experiences working in teacher education - 'you don't know what you don't know until you experience it'. We run courses and explain in advance what to expect but there is no substitute for the real thing. Teacher professional development is an on-going journey and a career long endeavour. We will never stop learning.

This is why *A Handbook and Tool Kit for Teaching, Learning and Assessment in Independent Higher Education Institutions in Ireland* is such a valuable resource. It serves as a companion for college teachers to accompany their professional development journey. It provides the most up-to-date understanding of age old insights. Underpinning the entire work is an appreciation of central role of scholarly reflection and portfolio development as a means of teacher professional enhancement.

Teresa Whitaker has put together a comprehensive collection of resources and tied these to tools and connections to open our thinking. Placed at the heart of this resource, is an exercise on the development of one's own 'Personal Philosophy of Teaching'. It is an engaging and challenging exercise that serves as a compass point for all of us. In the

maelstrom of technical and managerial approaches to teaching and learning, it is all too easy to overlook important qualities such as wellbeing, care, equality and inclusion.

The sections on theory, policies and frameworks provide a rich and thorough overview of the world we operate within. However, it is the persistent adherence to the implicit question of ‘what does this mean for me and as a teacher?’ that gives the book it’s unique quality.

This is not the kind of book you read once and then leave aside. It is more valuable than that. Keep it with you – in paper or electronic form – and you will always have the means to enrich your teaching and bring about significant learning in others. Inquire within and enjoy!

Leo Casey

Preface

The purpose of this handbook is to provide a free educational resource for HECA Colleges to use in the education and training of those who teach in their colleges and who are new to teaching, those who have limited experience, or, alternatively, who are new to an aspect of teaching. It builds on the *National Professional Development Framework for all Staff who Teach in Higher Education* (National Forum for the Enhancement of Teaching and Learning, 2016). This handbook is designed for new tutors/lecturers/teachers/ educationalists or more experienced teachers who wish to reflect on their teaching, learning, and assessment. In particular, it is directed at part-time or contract workers, who are important contributors from other industries; their role as industry worker as well as teacher/practitioner in higher education is acknowledged. Please be advised that this handbook and tool-kit is my own personal interpretation of the professional development framework based on my experiences of working in HEIs over the last twenty-five years; others may interpret the framework differently. Also, it was produced over a nine-month period, therefore, it is not a definitive guide but rather only 'scrapes the surface' of a huge body of knowledge. An exploratory and uncritical approach is taken; it is up to learners to provide their own criticisms of policies and practices. It also takes a Deweyian approach of inquiry; the learner explores the activities and asks his or her own questions and provides answers. This handbook is designed to whet the appetite and encourage learners to dig deeper. To the best of my ability, I have provided information from open sources and there is a list of open access resources at the end of each chapter and in an appendix.

The handbook and tool kit places critical personal reflection at the heart of good teaching because it enhances job satisfaction and also enhances student learning;it is an underlying tread in all of the chapters. New teachers are encouraged to collaborate with each other, form study groups, and engage in peer learning and dialogue. The assessment of this handbook is the creation of a digital Portfolio that documents your professional development; a programme director or a senior lecturer could assess this. It is recognised that all handbooks have a shelf life, policies will be updated, and web links may no longer exist, therefore, this handbook is simply a snapshot in time. If you think I have omitted anything important, please contact me so that I can update it.

Contents

Chapter 1 Introduction 1
The new teacher/tutor/lecturer 1
Intended Learning Outcomes for this handbook 3
How does this handbook and tool kit work? 4
What is a teaching Portfolio? 4
Teaching Heroes 6
Themes for digital portfolio 6
Structure of this handbook 6
Key Messages 7

Toolkit 1 8

Chapter 2 Governance and Policy Background 9
Learning Outcomes 9
National and international drivers of change 9
State funded HEIs and Independent HEIs 12
Teachers in IHEIs in Ireland 14
Changing Eduscape in Ireland 15
National Policies and Legislation 17
National Framework of Qualifications (NFQ) 18
Quality Assurance 18
National Forum for the Enhancement of Teaching and Learning 19
Key messages 20

Toolkit 2 22

Chapter 3: Personal Philosophy of Teaching 25
Introduction 25
Learning Outcomes 25
The Self – Personal Reflection on Prior Learning Experiences 25
My Personal philosophy of teaching 26
Characteristics of Students 27
Wellbeing of students 28
Students with disabilities 28
Legislation and Policy 29
Reasonable Accomodation 30
Self-Care 31
Key messages 35

Toolkit 3 36

Chapter 4 Critical Reflective Practice 38

Introduction 38

Learning Outcomes 38

Development of Professional Identity 38

Becoming a reflective and reflexive practitioner 39

Reflection as a meaning making process 40

Purpose of reflection 40

Reflection on one's self 41

Student feedback 41

Peer review/Observation 42

Engagement with Theories of Teaching and Learning 43

Role of the External Examiner (the fifth lens) 43

Research 44

Self-study Action research 47

Research Supervision 48

The Librarian and the Library 48

Key Messages 49

Toolkit 4 51

Chapter 5 The Teaching and Learning Environment 54

Introduction 54

Learning Outcomes 54

Academic Writing and Referencing 54

Communication with students 55

Curriculum Design Team 56

Didactic Lecture 58

Face to Face Tutorial 60

Online tutorial 60

Workshops/laboratories/fieldwork 62

Collaborative or Team Teaching 62

Flipped Classroom 62

Storytelling as a way of teaching 63

Digital Storytelling 63

Quizzes as a way of learning 64

Conferences 65

Key messages 65

Toolkit 5 67

Chapter 6 Pedagogies and Assessment 70
Introduction 70
Learning Outcomes 70
Theories of Teaching and Learning 70
Learning Theory 71
Behaviourism 71
Cognitivism 72
Humanist Theories 73
Constructivist Theories 73
Learning style preferences 75
Developing a Student Centred Approach 75
Writing Learning Outcomes 76
Assessment 77
Problem Based Learning 79
Behaviour Management in lecture theatres and classrooms 81
Graduate Attributes 83
Key Messages 84

Toolkit 6 86

Chapter 7 Technology Enhanced Teaching and Learning 89
Introduction 89
Learning Outcomes 89
The Internet and World Wide Web 89
Implications of growth of internet 90
Net generation and digital natives 91
Using and Evaluating Technological Tools 94
Broad Technological Eduscape in HEIs in Ireland 96
Online resources for teaching and learning 98
Virtual Learning Environments 99
MOOCS 100
Ensuring security – dark net issues 100
Key messages 100

Toolkit 7 102

Chapter 8 Conclusion 104
Introduction 104
Personal Philosophy of Teaching 104

Critical Reflective Practice 105
Teaching and Learning Environments 105
Pedagogies and Assessment 106
Techology Enhanced Teaching and Learning 106
Concluding Comments 107
References 108
Appendices 119
Appendix 2 Solutions to Word Quizzes 125
Appendix 3. Critical Incident Model: Cellular approach 126
Appendix 4: Self-Evaluation of tutorial 127
Appendix 4a. Peer Observation of tutorial 128
Appendix 5 Open Educational Resources 130
Appendix 6: Reflective Journal extracts 134
Appendix 7 Lesson Plan 136

Tables and Figures

Table 1. Non-Accredited and Accredited professional development 2
Table 2. Number of Full-Time Students in Institutions Aided by DES 12
Table 3. Number of students from IHEIs approved for Springboard 13
Table 4. Initial professional development as part-time teacher 14
Table 5. Research on Teaching and Learning in Irish HEIs 46
Figure 1. Maslow Hierarchy of Needs 73
Table 6. Learning Theories and their proponents 75
Table 7. List of verbs used in writing Cognitive Domain Learning Outcomes 76
Table 8. Student-centred Assessment 78
Figure 2. Traditional and Problem based learning 79
Table 9. Graduate Attributes & Programme Learning Outcomes 84
Figure 3. TPACK 93
Table 10. TPACK Framework 93
Figure 4. SAMR Model 94
Table 11. SAMR Model Example Emails 94
Table 12. SAMR Model Example QSR NVivo 95
Figure A: NFQ accreditation levels 124
Figure B. All Aboard Mapping Digital Skills in Irish Higher Education 133

Abbreviations and Acronyms

AHEAD	Association for Higher Education Access and Disability
AISHE	All Ireland Society for Higher Education
DES	Department of Education and Science (1997-2010)
DES	Department of Education and Skills (2010-present)
ECTS	European Credit and Accumulation Transfer System
EHEA	European Higher Education Area
ENQA	European Network for Quality Assurance in Higher Education
ESG	Standards and guidelines for quality assurance in the European Higher Education Area
HEA	Higher Education Authority
HECA	Higher Education Colleges Association
IHEI	Independent Higher Education Institution
IUA	Irish Universities Association
LIN	Learning Innovation Network
MOOC	Massive Open Online Course
NAIRTL	Network for Advancing Integration of Research, Teaching and Learning
NFETL	National Forum for the Enhancement of Teaching and Learning in Higher Education
OECD	Organisation for Economic Cooperation and Development
QQI	Quality and Qualifications Ireland
SoTL	Scholarship of Teaching and Learning
UNESCO	United Nations Educational, Scientific and Cultural Organization
WHO	World Health Organization

Chapter 1 Introduction

This handbook is designed to provide the new tutor/ lecturer or assistant tutor/ workshop facilitator with greater insight into the educational process, so that s/he can become confident and competent in developing this role. It provides the tools to develop knowledge, skills, and competences for teaching in HEIs in order to enhance student learning. The goal is to become a good teacher, as defined by Biggs and Tang (2011, p. 7): 'Good teaching is getting most students to use the level of cognitive processes needed to achieve the intended outcomes that the more academic students use spontaneously'. This handbook is not a substitute for an accredited certificate, diploma, or master's degree in teaching in third level education. Rather, its intention is to provide a first step for new teachers on what is hoped will become a longer learning journey. Those who work their way through the handbook will be actively guided to reflect on their practice (teaching learning and assessment), create a teaching philosophy statement, and develop a digital teaching portfolio. In this chapter we discuss the new teacher, the learning outcomes for this handbook and how the handbook works. This is followed by a description of teaching portfolios and the five domains of the *National Professional Development Framework for all Staff who Teach in Higher Education* (National Forum for the Enhancement of Teaching and Learning [NFETL], 2016), which underpin and give structure to this handbook.

The new teacher/tutor/lecturer

The new teacher/tutor or lecturer requires a definition. According to NFETL (2016) a new teacher is someone who is new to profession, or may have limited experience, or might be new to an aspect of teaching. They may have concerns about their adequacy or survival as a teacher. They may be more concerned about their own performance, rather than being concerned about their students' learning. In terms of their teaching practice, they may be reliant on just one approach.

This handbook aims to meet the learning outcomes recommended in the *National Professional Development Framework for all staff who teach in Higher Education* (NFETL). The NFETL is recommending that those who teach in HEIs develop their knowledge, skills, and competences through a range of learning activities, which involve different types of learning activity, namely: 1) new learning, 2) consolidating learning, 3) mentoring, and 4) leading. These are not necessarily linear; for example, a leader (such as a programme director) may be involved in new learning (for example, studying for a Master's or doctoral degree) or may be new to technology enhanced learning. This

handbook and tool kit is designed to build on the five key domains identified for professional development, and their constitutive elements (NFETL, 2016):

1. Domain 1. Personal Development: The 'Self' in Teaching, Learning and Scholarship identifies the uniqueness each person brings to their teaching and is at the centre of all professional development activity
2. Domain 2. Professional Identity, Values and Development
3. Domain 3. Professional Communication and Dialogue in Teaching and Learning
4. Domain 4. Professional Knowledge and Skills in Teaching and Learning
5. Domain 5. Personal and Professional Digital Capacity in Teaching and Learning

The NFETL (2016) has presented a useful typology of professional development activities, ranging from non-accredited to accredited activities; this handbook is an example of a structured and unaccredited activity.

Table 1. Non-Accredited and Accredited professional development

Non-Accredited			**Accredited**
1. Collaborative (informal)	**2 Unstructured (non-formal)**	**3 Structured (non-formal)**	**Formal**
Learning from these activities comes from their collaborative nature	These activities are independently led by the individual. Engagement is driven by the individual's needs/interests. Individuals source the materials themselves.	Organised activities (by an institution, network, or disciplinary membership body). They are typically facilitated and have a membership body.	Accredited programmes of study (ECTS or similar)
Examples			
Conversations with colleagues, peer networking, peer observations, online blogs/discussion forums	Reading articles, following social media, self-study, watching video tutorials, keeping a reflective teaching journal/portfolio, preparing an article for portfolio.	Workshops, seminars, MOOCs, conferences, summer schools, structured collaborative projects	Professional Certificate, Graduate Diploma, Masters, PhD, EdD in: Teaching and Learning, eLearning, Leadership in Education, Education Policy.

Source: The Professional Development Framework (NFETL, 2016, p. 2)

The following chapters will explore these professional development domains and the elements implicit in them. The professional development framework builds on a reflective and evidence-based approach, guided by the values of inclusivity, authenticity, scholarship, learner-centreness, and collaboration (NFETL, 2016, p. 8):

A. Reflecting on current knowledge and experience: Taking stock/ identification (What do I do already? What have I experienced in the different elements of each domain? What learning activities have led to the development of such knowledge and skills?)

B. Reflecting, to self-evaluate, based on evidence: Identification/documentation (Reflecting on the learning activities. What types of learning are associated with each of the learning activities identified? What kind of evidence could I provide to support my evaluation?)

C. Reflecting on what evidence to gather, and how to store it. Self-assessment: Documentation/Assessment. Choosing the evidence to use (How will I store my evidence? Identify where I am currently based on my self-reflection).

D. Reflecting to identify, plan and prioritise future learning: Assessment/Certification. External assessment and/or certification of learning to date (Identify my key short and long term learning goals, based on reflection and evidence. Consider external assessment and/or certification of my learning, to date) (NFETL, 2016, p. 8).

It is outside the scope of this handbook to investigate every element of each domain; therefore, selective elements have been chosen and have been translated into learning outcomes and chapters in this handbook have been mapped against the NFETL (2016) professional development framework (see Appendix 1).

Intended Learning Outcomes for this handbook

On completion of this handbook, the successful learner will:

1. Be a reflective and reflexive practitioner
2. Apply appropriate teaching and learning strategies to engage diverse cohorts of students in diverse educational settings
3. Draw from key teaching and learning theories to competently design and manage student-centred teaching and learning sessions

4. Develop assessments that are transparent, fair, and just: assessments of, for, and as learning
5. Critically engage in digital pedagogies and promote the use of technology enhanced teaching and learning
6. Design and sustain a digital portfolio to showcase your reflective practice and your teaching, learning, and assessment strategies

How does this handbook and tool kit work?

This handbook provides the new teacher with a set of intellectual tools. Each chapter is designed to encourage active self-directed learning. It involves reading a narrative script, and then doing selected activities based on investigating websites, exploring readings to encourage deeper thinking and understanding and then critically reflecting on what you have learnt, and applying the learning to actual issues in your teaching environment. Concurrently, you will be gathering evidence for and creating your own teaching portfolio. Each chapter finishes with a set of key messages. It is not necessary that every single activity be completed, but rather that enough activities be completed for the learner to gain an understanding of student centred learning, diverse teaching approaches, and assessment of/for and as learning. Readers who have already completed a certificate or diploma in higher education may simply wish to start creating a digital portfolio.

As part of a NFETL funded project, Dublin Institute of Technology, Institute of Technology Tallaght, Institute of Technology Blanchardstown, and Hibernia College launched the ePortfolio Hub website. This offers a one-stop-shop for anyone interested in incorporating ePortfolios into their teaching or creating their own ePortfolio, including how-tos, templates, guides, presentations, videos and research findings. Please visit this website if you intend to create a digital portfolio: http://eportfoliohub.ie/ .

What is a teaching Portfolio?

There is nothing new about portfolios. Historically, people like architects or painters carried portfolios in flat cases to showcase their work. Leonardo Da Vinci was the first person to create a folio, documenting his ideas for design and development (Barrett, 2016). Throughout this handbook, you will be gathering evidence of your learning to showcase in your teaching portfolio. The *All Aboard* project defines an eportfolio as ‘Tools for collecting and collating evidence of your learning, assessment and reflection’. The publication, *Teaching Portfolio Practice in Ireland: A Handbook,* provides models of teaching portfolios. According to O’Farrell (2007), teaching portfolios can be used for systematic reflective thinking on the scholarship of teaching and learning, or for

evaluation and accreditation. They can also be used for personal use, and for professional or pedagogical development. Most importantly, they provide teachers the opportunity to reflect critically on their teaching and on their student's learning in order to improve practice. Helen Barrett (2016) suggests that eportfolios are digital repositories, which will eventually replace CVs or resumes. They are workspaces and showcases. Whatever the purpose, O'Farrell (2007, p. 3) argues that

> as a teacher, whether one compiles a teaching portfolio for extrinsic or intrinsic reasons, taking those first steps towards reflecting systematically, deliberately and critically on one's teaching should provide the opportunity to enhance student learning through an improvement in teaching practice.

According to O'Farrell, in critically reflecting on their teaching methods, teachers must make their teaching theories and philosophies transparent so that students can become self-directed, rather than passive learners' dependent on the teacher. One of the dangers of reflective writing is that it can become purely descriptive, as teachers might not want to expose their faults, and peers may be embarrassed to criticise other teachers. It is good practice for groups of colleagues to get together and have a critical discussion about their teaching practices, and these should draw deeply from real authentic experiences, where participants can express emotions and take risks; however, this can be challenging and upsetting:

> As one participant in a portfolio programme noted, 'The reflective process left me feeling uncomfortable. At times nothing made sense. I had no answers and I found that space difficult. But as time went on I became more comfortable with not knowing'. O'Farrell (2007, p.6)

Teaching portfolios also provide an opportunity for collaboration with other teachers by sharing ideas, materials, and best practices. They are also useful for creating a *teaching commons*, a place where faculty can exchange ideas (O'Farrell, 2007, p.3)

> Dialogue that encourages reflection is about letting go of the identity invested in us as the authoritative subject expert; it is about embracing the unknown before making connections between individuals, departments and schools, and also between knowledge, self-understanding and practice.

Barrett (2016) also emphasises that conversation, dialogue or the exchange of ideas is better than simply telling. She believes that portfolios are always 'works in progress', in that portfolios should change as a person gains more experience; there is no one portfolio for life.

Teaching Heroes

In the past, teaching at third level was taken for granted and not rewarded; promotion was on the basis of publications and the ability to attract funding for research. Good teaching is now being acknowledged and rewarded and is reflected in European and national policies and, in a very practical way, is being recognised in the Teaching Heroes awards by the NFETL. Students from HEIs across Ireland were invited to vote for the teacher they believed to have the most innovative and inspiring approach to their teaching, and who had a positive effect on student learning. Students identified the traits that good teachers exhibit: creative communicators, encouraging, understanding and empathic, instilling a sense of wonder or curiosity (amazing), helpful and kind, inspiring, engaging, passionate about subject and dimensions of their discipline, and who create dynamics of excitement in the classroom.

Themes for digital portfolio

The following themes are suggested for the teaching, learning, and assessment portfolio:

- About me (cover page, short biography)
- Teaching Philosophy Statement
- Critical Reflective Practice
- Pedagogies and Assessment
- Professional Development
- Technology enhanced Teaching and Learning

New teachers will be provided with the building blocks to reflect on all aspects of their practice and these will be recorded as evidence in the teaching portfolio.

Structure of this handbook

Chapter 2 provides a description of national and European policies that have driven changes in the higher education arena in Ireland. Chapter 3 focuses on the first domain of the professional development framework, namely, the self, in teaching and learning. It requires the new teacher to reflect on their own characteristics and those of their students, and on their prior learning experiences, particularly on how their values affect teaching and learning. Chapter 4 focuses on the development of critical reflection skills; it draws on Dewey and Brookfield's seminal works. Chapter 5 examines how communication and dialogue underpin student centred learning in all sorts of learning environments. It also examines the assessment process. Chapter 6 focuses on the

scholarship of teaching and learning, while Chapter 7 examines professional and personal digital capacity and technology enhanced teaching.

Key Messages

1. This handbook provides the reader with the knowledge, skills, and competences to develop a digital teaching portfolio.
2. National and European Policy recommends that those who teach in 3rd level education should have some kind of certification and the NFETL is recommending that all those who teach in 3rd level education engage in professional development and develop a teaching portfolio to document their reflective practice.
3. Teaching portfolios provide teachers with the opportunity to critically reflect on their practices and on their students' learning in order to enhance their teaching practice. They are always 'works in progress' and can document your learning journey through life.

Toolkit 1

Activity 1

Read the intended learning outcomes of this handbook and see how they map against the NFETL (2016) framework for professional development (Appendix 1).

Activity 2

Check out the teaching Heroes awards. What characteristics would you like to demonstrate as a teacher?

- http://www.teachingandlearning.ie/priority-themes/student-led-teaching-awards/teaching-hero-awards-2016/
- https://media.heanet.ie/page/16ff0df0f702e0033b80fa0121d1e2df

Activity 3

Read Chapter 1: Introduction: 'Mind the Gap': in:

- O'Farrell, C., (2007). *Teaching Portfolio Practice in Ireland*, Ireland: Higher Education Authority. https://www.tcd.ie/CAPSL/assets/pdf/Teaching_Portfolio_Practice_in_Ireland.pdf

Answer the following questions:

- Why is critical reflection important for teachers in HEIs?
- What is the difference between 'espoused theory' and 'theory in use'?
- What are the benefits of creating a teaching commons?

Activity 4

Explore the eportfolio hub: http://eportfoliohub.ie/ . Decide which platform you would like to use. If you do not feel confident about building a digital portfolio, then begin by using a folder or box file or even a shoebox for your evidence.

Activity 5

Examine my teaching portfolio: www.teresawhitakerblog.com; I created this portfolio using the blogging website, 'Wordpress'. Any feedback on my blog is welcome.

Activity 6 Reflect on what you have learnt in this chapter.

Chapter 2 Governance and Policy Background

Higher education has been transformed in recent decades, with many of these transformations driven by European policies on teaching learning and assessment in HEIs. In this chapter, we identify the key stakeholders and trace the major drivers for policy change in Ireland. We examine issues concerning quality assurance. This is important background information for all those teaching in HEIs; however, it is not necessary to record this information in your teaching portfolio, but it is important to know what effects policies have on your role as a new teacher. It is important that the new teacher/tutor/lecturer is familiar with the level of his/her programme on the National Framework of Qualifications, and the programme and module learning outcomes.

Learning Outcomes

On completing this chapter, and the exercises within it, the successful learner will be able to:

1. Identify key stakeholders in the educational landscape in Europe and Ireland
2. Articulate the major drivers for policy change in Ireland
3. Describe programme and module learning outcomes

National and international drivers of change

The Organisation for Economic Cooperation and Development (OECD) has been pivotal in driving and influencing policy changes in Ireland. The OECD develops indicators to enable international comparisons so that governments can build more effective policies for education systems. World leaders gathered in New York in 2014 and set education goals and targets. Goal 4 of the Sustainable Goals seeks to ensure ‘inclusive and equitable quality education and promote life long learning opportunities for all’ (OECD, 2016). The OECD gathers data to measure progress towards the education targets. One of its aims is to ensure equal access for all women and men to affordable and quality teaching, vocational, and tertiary education, including university. In common with most western countries, Ireland spends about 5% of its Gross Domestic Product on education, of which, approximately, 25% is spent on tertiary education (OECD, 2016). The OECD gathered data from 29 countries on the quality of teaching in third level education (OECD, 2010). Their main findings included:

- Teaching matters in higher education institutions; there is a growing number of initiatives (actions, strategies, policies) aimed at improving the quality of teaching.

- The vast majority of initiatives supporting teaching quality are empirical and address the institutions' needs at a given point in time (Initiatives inspired by academic literature are rare).
- For a university to consolidate the varied initiatives coherently, under an institutional policy, remains a long-term, non-linear effort, subject to multiple constraints.
- Technology has improved pedagogy and student-teacher interactions.
- Quality teaching must be thought of dynamically, in light of contextual shifts in the higher education environment. Studies are becoming internationalised, and higher education is being asked to contribute to new areas (such as innovation, civic and regional development), in order to produce an appropriately skilled workforce to meet the challenges of the 21st century.
- Senior management must be committed to capturing all the dimensions that affect quality teaching. Students must be committed to providing feedback on curricula and teaching through programme evaluation.
- An effective institutional policy, for the quality of teaching, brings together:
- External factors, at national and international levels (*e.g.* the Bologna Process in Europe), which may foster a climate conducive to the recognition of teaching quality as a priority.
- Internal institutional factors, such as institutional context and specific circumstances (*e.g.* the appointment of a new chief executive), which are likely to affect the pace of development of quality teaching initiatives.
- Leadership at executive levels is a success factor. The participation of faculty deans is vital, as they are at the interface between an institution's decision-making bodies and teachers on the job. They encourage the cross-fertilisation of strategic approaches, build and support communities of practice, and nurture innovation in everyday practice in the classroom.
- Encouraging bottom-up initiatives from the faculty members, setting them in a propitious learning and teaching environment, providing effective support, and stimulating reflection on the role of teaching in the learning process, all contribute to quality teaching.

- Neither the size nor the specificity of an institution poses a major obstacle to the development of institutional policies, as long as there is strong involvement of the institution's management, sufficient funding, and adequate facilities.
- Educational institutions must strike a balance between technical aspects of quality support (*e.g.* development of course evaluation questionnaires) and fundamental issues (*e.g.* assessing the added value of the teaching initiatives in achieving curriculum objectives).
- The institutions need to develop innovative approaches to measuring the impact of their support on quality teaching. They are still struggling to understand the causal link between their engagement in teaching and the quality of learning outcomes. Exploring the correlation among inputs, processes and outcomes of higher education calls for pioneering and in- depth evaluation instruments'. (OECD, 2010, pp. 9-10 Executive Summary)

The *National Strategy for Higher Education to 2030* (Department of Education and Skills [DES], 2011) states that the vision of higher education in Ireland is to achieve three objectives: 1) teaching and learning, 2) research (investment and capacity building, relationship between research and teaching, and 3) engagement (responsibility towards society and the world). Chapter 3 is devoted to teaching and learning, and ensuring that students have an excellent teaching and learning experience, informed by research in a high-quality environment, with up to date resources. It argues that teaching at tertiary level is distinguished from teaching at other levels because it is informed by research and a spirit of enquiry (DES, 2011). It suggests that teaching may be:

- 'Research-led: the curriculum is informed by the research interests of the teachers;
- Research-oriented: the curriculum emphasises the processes by which knowledge is produced;
- Research-based: the curriculum includes activities in which students actually conduct research, through projects and other course work; or
- Research-informed: the curriculum is informed by systematic enquiry into the teaching and learning process itself'. (DES, 2011, p.54)

The *National Strategy for Higher Education to 2030* (DES, 2011, p. 18) argues that, if primary and post-primary teachers require qualifications to teach, then teachers at 3rd level should also have a professional qualification. It recommends that

> higher education institutions must ensure that all teaching staff are both qualified and competent in teaching and learning, and should support ongoing development and improvement of their skills (DES, 2011)

The High Level Group on the Modernisation of Higher Education (HLG) (2013) also recommends that all those teaching in HEIs should receive certified pedagogical training by 2020.

State funded HEIs and Independent HEIs

Currently, the major stakeholders in the provision of higher education in Ireland are students, the state (Higher Education Authority [HEA], DES, Universities, and Institutes of Technology), and independent private[1] higher education institutions. The HEA is the statutory body that provides policy advice to the Government and to the Minister for Education and Skills. It also provides funding to the Universities, Institutes of Technology, and other institutions provided for in the Higher Education Authority Act, 1972. According to the DES (2016), there are almost 180, 000 full-time students in third level education, in Ireland, who are aided by the department.

Table 2. Number of Full-Time Students in Institutions Aided by DES

Number of Full-Time Students in Institutions Aided by DES			
Institutions	**No.**	**2014/2015**	**2015/2016**
Universities	7	95,120	100,793
Institutes of Technology (IOTs)	14	68,324	68,570
Teacher Training Institutions	5	6,953	7,029
Other Aided Institutions	3	3,252	3,458
Total	39	173,649	179,850

(Source: DES, 2016 https://www.education.ie/en/Publications/Statistics/Key-Statistics/Key-Statistics-2015-2016.pdf)

In addition to the state funded colleges, there is also the private higher education institution sector or the independent colleges, hereafter referred to as Independent Higher Education Institutions (IHEI). This sector has grown substantially over the past thirty years, not only in Ireland, but globally. According to the United Nations Educational, Scientific and Cultural Organization (UNESCO) (2009), IHEIs represent the fastest growing sector, globally, in third level education. In some countries (Indonesia, Japan, the Philippines and the Republic of Korea), over 70% of private enrolment are in IHEIs (UNESCO, 2009). This growth is driven by the global demand for higher education and

[1] The term independent, rather that private, higher education institution will be used in this handbook.

the inability of the public sector to accommodate the demand. Western private colleges are locating in countries all over the world. According to Douglas (2016), private higher education now serves 31% of all students in post-secondary education and constitutes some 56% of HEIs around the world.

The exact number of students in IHEIs in Ireland is unknown. Clancy (2015, p. 33) estimates it is in the region of 18, 204; this figure is based on the report of the Expert Group on *Future Skills Needs on Monitoring Ireland's Skills Supply* (2013) (Clancy, 2015). However, the numbers may be greater than this. The growth in the number of students applying to independent colleges in Ireland may be attributed to 'barriers to entry' (high Leaving Certificate points) to certain courses and the capping of numbers for certain professional programmes, such as teaching, providing an opportunity for the private sector to cater for demand. Eight IHEIs have listings on the CAO, leading to 112 course entries. The cut off Leaving Certificate points are similar to the Institute of Technology sector (Douglas, 2016). IHEIs have also been successful with Springboard (funded by the Irish government and the European Social Fund as part of their programme for social inclusion, employability, and learning 2014-2020). It offers a choice of 181 free, part-time, and intensive conversion courses in higher education, from certificate, to degree, to post-graduate level (DES & ESF, 2014).

Table 3. Number of students from IHEIs approved for Springboard

Year	Total HEA approved numbers	IHEI numbers	% Success of IHEI
2013	6103	1945	32%
2014	6059	2878	47%
2015	9054	4044	45%

Source: (Douglas, 2016)

IHEIs are held in high esteem by the DES, as shown by the words of Seán Ó Foghlú, Secretary General, DES, in a keynote address to the HECA conference in 2015:

> … the strong role that has been played by the private higher education sector in contributing to the global skills profile enjoyed by Ireland … this contribution will endure and increase as we rise to meet the demographic and other challenges ahead. (Cited in Douglas, 2016).

Although the university sector can validate its own programmes, programmes offered by IHEIs in Ireland are validated by Quality and Qualifications Ireland (QQI) or UK, Irish, or international universities. In addition, some professional programmes are also validated by professional bodies such as The Teaching Council, Honorable Society of King's Inns,

and the Irish Association for Counselling and Psychotherapy. According to Douglas (2016), Irish IHEIs are:

- Bologna compliant
- Subject to national standards for programmes and awards
- Benchmarked on the Irish National Framework of Qualifications (NFQ) and, therefore, the European Framework of Qualifications
- Have QA/QI policy and procedures approval under statute

Those who teach in IHEIs are another group of important stakeholders.

Teachers in IHEIs in Ireland

The exact number of those who teach in independent higher education institutions in Ireland is unknown (Coughlin, 2016) but given the size of the sector, the number is substantial. Like the state sector, some of these teachers may work full time in an academic post but others may combine their work in another sector with working part-time in an IHEI; for example, many of the tutors in Hibernia College also work as teachers in primary and post-primary schools. Coughlin (2016) conducted a small-scale study of part-time academic staff in HEIs, with the aim of identifying their professional needs. Of those (n=140) who responded to her survey, 55%, or 77 respondents, worked for IHEIs. Some 39% (N=55) worked in more than one college. The majority (66%) of those working in IHEIs were working part-time by choice and held a level 9 or master's qualification. A substantial number of those who worked in IHEIs had been working part-time for over eleven years; the majority of whom were paid on an hourly basis. The majority (73%) of those teaching in IHEIs expressed satisfaction with theavailable professional development opportunities in teaching and learning at their institutions; those who expressed the most satisfaction (73%) were working in the private sector. Respondents were asked how they learnt to teach when they commenced teaching in HEIs; the majority learnt by doing, whilst a substantial minority had a formal qualification in teaching (see table below).

Table 4. Initial professional development as part-time teacher

Initial professional development as part-time teacher	Responses	
	No.	%
I just got stuck in and learnt by doing	82	20
I learnt 'on the job' from informal discussions with peers	48	12
I had qualifications/experience as a trainer	47	11
I learnt 'on the job' from observing peers teaching	47	11

Initial professional development as part-time teacher	Responses	
	No.	%
I gained a formal qualification in teaching and learning (certificate/ diploma/ master's)	45	11
By attending short courses/workshops/training events in different aspects of teaching and learning	29	7
By reading the literature in the field of education development/learning and teaching in higher education	28	7
I learnt 'on the job' through mentoring and coaching from peers	26	6
By attending conferences and seminars in teaching and learning	17	4
I'm just starting now and considering my options	13	3
I had previously taught in higher education on a full-time basis	11	3
I had to take a mandatory course in teaching at my institution	10	2
Through online learning	8	2
Other	6	1
Totals	417	100

(Source: Coughlin, 2016, p. 52)

Although a small minority (11%) had accreditation, the majority of respondents (70%) felt confident in the practice of third-level teaching.

Changing Eduscape[2] in Ireland

In the past five decades, Ireland has experienced the democratisation, modernisation, and transformation of higher education. The OECD conducted a study, *Investment in Education* in 1962 (published in 1965), which was described by Professor Patrick Clancy as 'the foundation document of modern Irish Education' (cited in Walsh et al 2014, p. 119). This OECD report highlighted the disparities in participation in education based on social class and regional grounds. The OECD study emphasised the economist, TK Whitaker's view that investment in education was investment in the economy (Walsh *et al.*, 2014). In the 1960s, major inequalities existed in the system, where only a tiny minority could afford or were given the opportunity to attend college (CSO, 2000; Stuart, 2012) but, by 2015, the vast majority of Leaving Certificate students participated in some form of third level education (CSO, 2015). According to Clancy (2015), there were 26,628 students enrolled in all higher education institutions in 1969/70; by 2009/10, this number had increased to 200, 412. The CSO noted that there were 173,649 students in full-time third level education in 2014/15, an increase of nearly 840% since 1965/66. The

2 I am coining a new word here: *Eduscape* means the educational landscape and incorporates virtual online education.

increase in participation may be, in part, to do with the fact that tuition fees for university undergraduates were abolished in Ireland in 1996; however, it is argued that students from low socio economic status are still under-represented (Denny, 2010). That said, it is a cultural norm that education is a good thing for the individual, society, and the economy and should be available for the masses and not just the elite. According to the Standards and guidelines (ESG) for quality assurance in the European Higher Education Area (EHEA) (2015, p.4):

> Higher education, research and innovation play a crucial role in supporting social cohesion, economic growth and global competitiveness. Given the desire for European societies to become increasingly knowledge-based, higher education is an essential component of socio-economic and cultural development. At the same time the increasing demand for skills and competences requires higher education to respond in new ways. (ESG, 2015, p.4)

Third level education has been transformed in recent decades by the Bologna Process (1999) or agreement, which seeks to ensure that higher level education qualifications are comparable across Europe, committed to transparency, accountability, student exchange, staff exchange and openness (Confederation of EU Rectors, 2000; European Commission). The objectives of their action programme are, *inter alia*, to ensure that a common framework of comparable credits and degrees exist, which are recognisable across countries, in order to assist in the free mobility of students across education sectors and countries. The Bologna Process is also committed to the modernisation of education and training systems so that they meet the needs of the labour market. According to Biggs and Tang[3] (2011, p. 7), the Bologna Process aims to establish a EHEA based on academic exchange and international cooperation. Its aims:

- Mobility - facilitate mobility of students, graduates, and higher education staff;
- Employability - Prepare students for their future careers and for life as active citizens in democratic societies, and to support their personal development;
- Offer broad access to high-quality higher education (Biggs and Tang, 2011, p. 7)

The European Credit and Accumulation Transfer System (ECTS) is a quantitative estimate of student workload to achieve the intended learning outcomes of a module or programme. One unit of credit is typically 25-30 hours of work, including study and

---

3 There are two editions of Biggs and Tang books referred to in this handbook. The first one is available on the internet: Biggs, J. & Tang, C., (2007). *Teaching for Quality Learning at University* 3rd ed., Berkshire: Open University Press. The fourth edition was published in 2011 and I highly recommend it as a comprehensive textbook for teaching learning and assessment in third level education.

assessments; 60 credits is the typical workload of a student for a year. The EHEA establishes national qualifications frameworks, which define learning outcomes for bachelor, master, and doctorate levels, and describe what learners should know, understand, and be able to do on the basis of their qualification (Biggs and Tang, 2011). According to its website, the EHEA:

> … is the result of the political will of 48 countries which, step by step during the last eighteen years, built an area using common tools. These 48 countries implement reforms on higher education on the basis of common key values – such as freedom of expression, autonomy for institutions, independent students unions, academic freedom, free movement of students and staff. Through this process, countries, institutions and stakeholders of the European area continuously adapt their higher education systems making them more compatible and strengthening their quality assurance mechanisms. For all these countries, the main goal is to increase staff and students' mobility and to facilitate employability. (http://www.ehea.info)

The Bologna Process also seeks to put the student centre stage in their education; students are seen as equal partners and should have representation on Academic Boards and Programme Committees.

The Modernisation Agenda for higher-level education in Europe aspires to have 40% of young people in member states attain a third level qualification by the year 2020. To achieve this, the HLG has provided an overarching policy framework for national and EU policies, highlighting issues such as: levels of attainment, quality and relevance, mobility, innovation, regional development, funding and governance (HLG, 2013). The report argues that quality teaching and learning is at the core of this reform agenda.

National Policies and Legislation

National policies and laws, such as *Charting our Educational Future White Paper on Education* (Department of Education, 1995), the Education Act 1998, and the *National Strategy for Higher Education to 2030* (DES, 2011) were pivotal in driving reforms in third level education. An administrative structure for the development, recognition, and award of training and education qualifications was embodied in the *Qualifications (Education and Training) Act*, 1999. That legislation established three institutions to ensure that qualifications are underpinned by quality assurance mechanisms: the National Qualifications Authority Ireland (NQAI), the Further Education and Training Awards Council (FETAC), and the Higher Education and Training Awards Council (HETAC). In November 2012, QQI was established under the Qualifications and Quality Assurance (Education and Training Act) (2012). It is a single port of call and has taken over the work of HETAC, FETAC, NQAI, and the Irish Universities Quality Board, now legally

dissolved. QQI is an exercise in corporate governance and is comprised of a ten-member board, which has two student representatives, an international consultant, and representatives with expertise in higher education. Its role is to assist in improving education and training at third level and to ensure that learners will be impacted positively by their learning experience and to develop processes and procedures which will ultimately lead to students gaining an internationally recognised mark. This new body is responsible for all the functions (programme validations, programmatic reviews, quality assurance etc.) of the four previous bodies and has the responsibility for ensuring that high standards and practices are maintained in third level institutions.

National Framework of Qualifications (NFQ)

The NFQ is designed to facilitate recognition and comparison of qualifications, nationally and internationally. The NFQ is a system comprising ten levels which recognises learning from the very initial to the most advanced stages, defined by nationally agreed standards of Knowledge breadth and kind, Know-How and Skill (range and selectivity), Competence (context, role, learning to learn and insight) that an individual is expected to reach on successful completion of each stage. (See the 'NFQ fan' a chart of NFQ levels, in Appendices, Figure A)

According to the QQI website, 5,921 programmes have been validated, ranging from Level 1 to 10. In terms of higher education, 885 programmes are validated: Level 7 (Ordinary Bachelor's Degree), Level 8 (Honours Bachelor's Degree), Level 9 (Master's Degree), and Level 10 (Doctorate).

Quality Assurance

Each Higher Education Institution (HEI) must ensure that it has a quality assurance policy or policies to govern all aspects of programme delivery and should include issues like: grounds for extensions of assessments, deferrals, and appeals (of a grade) (Quality and Qualifications Ireland, 2013). Quality assurance policies are guided by the *Standards and Guidelines for Quality Assurance in the European Higher Education Area* (ESG, 2015) and contribute to promoting transparency and mutual trust in HEIs. The ESG (2015, p.7) have the following purposes:

> 'They set a common framework for quality assurance systems for learning and teaching a European, national and institutional level;
>
> - They enable the assurance and improvement of quality of higher education in the EHEA;

- They support mutual trust, thus facilitating recognition and mobility within and across national borders;
- They provide information on quality assurance in the EHEA'.

The ESG are based on the following four principles for quality assurance in the EHEA:

1. 'Higher education institutions have primary responsibility for the quality of their provision and its assurance;
2. Quality assurance responds to the diversity of higher education systems, institutions, programmes, and students;
3. Quality assurance supports the development of a quality culture;
4. Quality assurance takes into account the needs and expectations of students, all other stakeholders and society' (ESG, 2015, p.6)

The ESG (2015, p. 25) recommends that HEIs gather reliable data so that they can ensure effective management of their programmes. These data include: 1) KPIs (key performance indicators, 2) a profile of the student population, 3) student retention and progression, 4) student satisfaction with their programme, 5) student supports and resources, and 6) career paths of graduates. The European Network for Quality Assurance in Higher Education (ENQA) promotes co-operation in the field of quality assurance across Europe and is mandated to develop an agreed set of procedures, standards, and guidelines for quality assurance across Europe (ENQA, 2009).

National Forum for the Enhancement of Teaching and Learning

The establishment of the NFETL,[4] by the Minister for Education and Skills in 2012, represents a watershed in the history of third level teaching in Ireland. Its role is to enhance the teaching and learning of all students in higher education through engagement with students, teachers, and managers in order to determine best practice in the sector. According to Clancy (2015, p. 154), its priorities were those objectives listed in the *National Strategy*: 'the enhancement of engagement with innovative pedagogies, and with the technologies that support these; the enhancement of the first year experience; enhanced flexibility in the delivery of higher education programmes; and the enhancement of students' proficiency in mathematics and science'. A 13-member board was established, consisting of key figures representing best current thinking; the patron of the board is former Irish President, Professor Mary McAleese.

[4] For a very detailed description of the evolution of the NFETL, see *Irish Higher Education a Comparative Perspective* (2015) by Patrick Clancy, Dublin:Institution of Public Administration.

According to its website, under the guidance of its Board (whose members are chosen to represent the different areas of expertise in teaching and learning) the NFETL engages in a range of activities aimed at:

- 'Championing all those who contribute to great teaching and learning in higher education
- Inspiring great practice, by celebrating examples of teaching that have a strong and positive impact on learning
- Developing teachers and learners
- Identifying and promoting best practice in professional development
- Building digital capacity
- Promoting key enhancement themes
- Enabling innovation in a fast-changing educational environment'.: http://www.teachingandlearning.ie/about/

The NFETL agenda has been driven by two dynamic Irish educators, Dr Terry Maguire and Professor Sarah Moore. The democratic and inclusive nature of its structure is reflected by the fact that it includes HECA representatives as Associates of the NFETL. In its three-year existence, among other things, the NFETL has funded an enormous amount of research, developed policies, enhancement themes, published reports, funded the national seminar series, and created the teaching heroes' awards. Their website is a treasure trove for educators.

Key messages

1. Third level education in Ireland has become increasingly democratised, with growing numbers of diverse students, who were excluded historically. Independent private colleges cater for almost 20,000 students. Many of those who teach in these IHEIs are part-time contract workers who bring a wealth of experience from various industries.
2. Drivers of change in Irish education include the Bologna Process, which ensures that a common framework of comparable credits and degrees exist and are recognisable and comparable across countries in the EHEA (48 countries) and to assist the free mobility of students across education sectors and countries. The Bologna Process is also committed to the modernisation of education and training systems so that they meet the needs of the labour market. It is committed

to transparency, accountability, student exchange, staff exchange, and openness.

3. Quality and Qualifications Ireland governs higher education in Ireland. Its role is to assist in improving education and training at third level and to ensure that learners will be impacted positively by their learning experience and to develop processes and procedures that will ultimately lead to students gaining an internationally recognised mark. It ensures that high standards and practices are maintained in third level institutions. The National Framework of Qualifications describe the various qualifications and provide a detailed grid of level indicators, from Level 1 to Level 10, based on: Knowledge breadth and kind, Know-How and Skill (range and selectivity), Competence (context, role, learning to learn and insight).
4. The NFETL was established in 2012. Its role is to enhance the teaching and learning of all students in higher education through engagement with students, teachers, and managers in order to determine best practice in the sector.

Toolkit 2

Activity 1

Watch the following video about the Bologna Process. How would you describe the key principles of the Bologna Process to your students?

Dr Norma Ryan – The History of Bologna Process: Political Developments (Published June 12, 2012). This video is 36 minutes long.
https://www.youtube.com/watch?v=Bpo0mZR2jek

Activity 2

Explore Quality and Qualifications Ireland website: http://www.qqi.ie and study the Grid of Level Indicators:
http://www.google.ie/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&sqi=2&ved=0ahUKEwi_vfbxnc7RAhWEK8AKHb0vBDoQFggZMAA&url=http%3A%2F%2Fwww.nfqnetwork.ie%2F_fileupload%2FGrid%2520of%2520Level-Indicators.doc&usg=AFQjCNGux0pkeBGQ4vPtWNAhP2_x2ri38w&bvm=bv.144224172,d.ZGg

Activity 3

Explore the National Framework of Qualifications website:
http://www.qqi.ie/Pages/National-Framework-of-Qualifications-(NFQ).aspx

Find out where your programme is listed on the QQI website.
http://qsearch.qqi.ie/WebPart/Search?searchtype=programmes

Activity 4

Explore the policy document Assessment and Standards, Revised 2013, and answer the following questions.
https://www.qqi.ie/Publications/Publications/Assessment_and_Standards%20Revised%202013.pdf

What does QQI say about fairness and consistency in assessments?

What does it say about appeals and complaints?

Activity 5

On what level on the NFQ is the programme you are teaching?

Investigate the level below the one you are teaching, in order to see where your students are coming from.

What are the programme learning outcomes?

What are the module learning outcomes of the module you are teaching?

What does outcomes based teaching and learning mean?

How many credits does the module have?

Activity 6

What do the Standards and Guidelines for Quality Assurance in the European Higher Education Area, (ESG, 2015), say about 1.3 Student-centred learning, teaching and assessment; and 1.5 Teaching Staff?
https://www.dkit.ie/system/files/ESG%202015%20(as%20endorsed%20by%20ministers).pdf

Activity 7

Read the 16 recommendations of the HLG report to the European Commission on *Improving the Quality of Teaching and Learning in Europe's Higher Education Institutions* (2013, p.62)

http://ec.europa.eu/dgs/education_culture/repository/education/library/reports/modernisation_en.pdf

Activity 8

Check out the ENQA website http://www.enqa.eu

> **ENQA** is an umbrella organisation, which represents quality assurance organisations from the EHEA member states. ENQA promotes European co-operation in the field of quality assurance in higher education and disseminates information and expertise among its members and towards stakeholders in order to develop and share good practice and to foster the European dimension of quality assurance.

Activity 9

Explore the website of the NFETL: http://www.teachingandlearning.ie/about/

Activity 10

To find out more about the EHEA, explore their website http://www.ehea.info

Activity 11

Read Chapter 3: Teaching and Learning (pp. 52 – 63) (DES, 2011) *National Strategy for Higher Education to 2030.*
http://www.hea.ie/sites/default/files/national_strategy_for_higher_education_2030.pdf

Activity 12

Quizzes are a fun way to learn. See if you can find 12 words associated with **Governance and Policy** issues. [Solution: Appendix 2]

T	L	G	A	M	F	X	L	L	Y	S	B	U	U	Y
E	B	A	F	C	P	O	E	B	T	R	B	S	E	X
A	Y	S	N	E	C	A	R	A	I	A	E	H	E	B
C	N	C	C	O	R	E	N	G	L	F	I	A	X	F
H	U	T	A	N	I	G	S	Z	I	O	E	N	E	U
I	S	C	I	V	O	T	J	S	B	R	J	H	V	V
N	P	N	L	L	T	M	A	V	O	U	Z	A	K	F
G	G	R	O	U	W	G	Q	N	M	M	P	M	N	R
D	Y	B	O	C	M	S	U	K	J	S	W	X	Z	W
P	K	N	D	G	M	O	D	U	L	E	G	E	G	J
S	S	F	X	E	R	J	H	P	M	O	X	K	O	Q
E	M	P	L	O	Y	A	B	I	L	I	T	Y	N	I
S	O	X	D	R	S	E	M	O	C	T	U	O	S	I
H	B	G	B	J	I	K	V	M	M	A	L	M	J	A
P	Z	M	C	F	P	I	V	O	E	I	D	O	G	S

Source: Word search quiz created
http://puzzlemaker.discoveryeducation.com/WordSearchSetupForm.asp

Activity 13

It is useful to be aware of *QQI's Policies and Criteria for the validation of Programmes of Education and Training* (2016)
http://www.qqi.ie/Publications/Publications/Initial_Validation_policy_7_10_13.pdf

Activity 14: Reflect on what you have learnt in this chapter.

Chapter 3: Personal Philosophy of Teaching

Introduction

The first domain of the *Professional Development Framework for all staff who teach in Higher Education* (NFETL, 2016) focuses on: Personal Development: The 'Self' in Teaching and Learning. It is concerned with the characteristics of the student and the teacher, and with how these characteristics may positively or negatively influence teaching, learning, and scholarship, and whether they may have consequences for student learning and wellbeing.

This chapter begins with a discussion of the self and prior learning experiences. This is followed by a discussion of a personal philosophy of teaching based on one's own values and whether it is aligned with the educational institution within which one works. The democratisation of education means that the student body is much more diverse today than previously, and we reflect on the characteristics of students including the social inclusion of those with disabilities and the well-being of students. We then examine legislation and policy and the extent to which IHEIs can provide reasonable accomodation. In order to give as a teacher it is essential to engage in care of the self; the chapter closes with a discussion of self-care.

Learning Outcomes

On completing this chapter, and the exercises contained in it, the successful learner will be able to:

1. Identify the key personal characteristics that motivate and challenge teaching, learning, and scholarship and which may affect student learning or wellbeing.
2. Reflect on prior learning experiences that contribute, or are barriers, to teaching, i.e. prior experience and knowledge as a student, as a teacher, as a researcher, in personal life.
3. Describe and discuss a personal philosophy of teaching and awareness, of the extent that this aligns, or does not align, with your institution or learning context's values, on teaching and learning.

The Self – Personal Reflection on Prior Learning Experiences

At some stage, every teacher was a student, therefore, it is important that teachers reflect on their prior learning experiences to see how they contribute, or act as barriers, to teaching. This will entail reflecting on the personal values that he/she brings to their

teaching, including self-awareness, confidence, life experience, and affective aspects associated with teaching. Teachers need to reflect on positive and negative past experiences. Who was the best teacher you ever had? What was it about that teacher that facilitated your learning? Who was the weakest teacher? According to Fitzmaurice and Coughlan (2007, p.42) 'teachers should remember that we are all products of our own educational histories'. Our own experiences as learners inform our teaching approaches and our understanding of what teaching and learning is. Reflecting on these questions leads us to consider the development of a personal philosophy of teaching.

My Personal philosophy of teaching

Articulating a personal philosophy of teaching and becoming aware of the extent that this aligns, or does not align, with your institution or learning context's values on teaching and learning, is something that you will develop over the course of this handbook and which you will state in the teaching portfolio. O'Farrell suggests that a teaching philosophy statement should be short (400 – 800 words) and should reflect your personal approach to teaching. She suggests that it should:

- 'Provide evidence of your sincerely-held beliefs
- Codify your pedagogical thinking at a particular time
- Examine your teaching practices
- Monitor your development as a teacher (O'Farrell, No date)

She provides some guiding questions (O'Farrell, p. 4):

- What do I believe about teaching?
- What do I believe about learning? Why? How is that played out in my classroom? What are my goals as a teacher?
- What demonstrates my desire to grow as a teacher?
- What do I still struggle with, in terms of teaching and student learning?
- What motivates me to learn about this subject?
- What are the opportunities and constraints under which I learn and others learn?
- What do I expect to be the outcomes of my teaching?
- What is the student-teacher relationship I strive to achieve?

- How do I know when I have taught successfully?
- What habits, attitudes, or methods mark my most successful teaching achievements?
- What values do I impart to my students?
- Has my approach to teaching changed?
- What role do my students play in the classroom (listeners? Co-discoverers? Peer teachers?)
- What have I learnt about myself as a teacher?
- What excites me about my discipline?
- How has my research influenced my teaching?
- What does teaching mean to me (coaching, leading, guiding, telling, showing, mentoring?)
- What teaching practices do I use and prefer (lecture, lead discussions, guide problem solving, provide demonstrations?)
- What are my plans for developing or improving my teaching? (learn new skills, try out new approaches?)

These questions will be returned to, at the end of the chapter, and will inform the teaching philosophy statement for the teaching portfolio. Our goal is to take a student centred approach; therefore, it is important to turn our attention to the characteristics of our students because all students have different learning needs.

Characteristics of Students

Students are at the heart of learning, but they are not a homogeneous group and may have different characteristics (physically, psychologically, and sociologically) and needs. In recent decades, there have been calls to improve access to HEIs, particularly for those groups who have been underrepresented in the past, such as students from socio-economically disadvantaged backgrounds, mature students, and those with disabilities (DES, 2001). The democratisation of third level education, and increased access, means that the student body is now much more diverse, not only in terms of cultural, economic and social backgrounds, but also in terms of diversity (age, gender, marital and family status, race, religion, Traveller identity, disability) and their abilities. The social inclusion

of diverse students provides many opportunities and challenges such as, how to communicate with students whose first language is not English, or how to accommodate a student who needs to pray at certain times of the day, and as a consequence may miss lectures, or how to socially include students who are parents or students with disabilities. The transition from post-primary school to college may be traumatic, difficult, and challenging for students, so supports, such as orientation or induction, should be available to ensure a smooth transition. The Learning Innovation Network and Student Led Learning have provided a wealth of resources for students making the transition to higher education including a very useful free guide for students for the first six weeks of college.

Wellbeing of students

In our role as teachers, it is easy to get caught up in the activities of teaching, assessment, and delivering the curriculum and neglect the holistic nature and wellbeing of the student. Participation rates in higher education have grown from 5% in the mid-1960s to 20% in 1980 to 65% in 2010. The HEA commissioned the fourth Irish Eurostudent survey (Harmon and Foubert, 2013), which examines key factors relating to Irish students' participation in third level education, such as health and wellbeing. Data was drawn from thirty higher education institutions. A number of research instruments were used, including the World Health Organization instrument (WHO-5) to measure the wellbeing of students in relation to depression, anxiety, and psychological distress; a score below 13 indicates poor wellbeing. The results of the survey found that 42% of full time students and 36% of part-time Irish students scored lower than 13, indicating poor wellbeing. Many students were exhibiting signs of chronic stress, with 28% having difficulty concentrating and sleeping. One of the main causes of stress was related to studies, followed closely by financial worries. Students may use alcohol to alleviate stress, and Ireland ranks high among the countries that have high levels of alcohol consumption; that said, although the majority (85%) consumed alcohol, only a minority of students exceed the recommended limits. A quarter of all students also smoke cigarettes and one-fifth of students do not exercise, which has implications for their wellbeing and their performance in third level education.

Students with disabilities

Undoubtedly, one of the most significant changes in third level education in recent years is the social inclusion of students with special educational needs, who were socially excluded, historically. This social inclusion is underpinned by policy and legislation but there are still cracks in the system through which students can fall. The representation of

students with a disability is far lower than those without a disability. For example, the 2006 Census of Population (Central Statistics Office) found that 9% of the population (circa 400,000 persons) reported a disability, with almost one third (32%) of respondents indicating that they had stopped their education sooner than they intended because of their disability. Thankfully, this figure has increased but there still is no parity between those with a disability and those without. The 2011 Census of Population revealed that 16% of those with disability (age 15-49) completed no higher than primary level, compared to 5% for the general population. According to the Association for Higher Education Access and Disability (AHEAD), 28% of students with disabilities are represented in third level education, compared to 43% of non-disabled students in the same age group. However, the numbers of students with a disability completing third level are still substantially lower (24%) than the percentage of those without a disability (39%) (AHEAD, 2011). In a truly inclusive and democratic society, all students who wish to avail of third level education would be facilitated to do so.

Legislation and Policy

If students with disabilities are to attend third level education, it is vital that a path is paved for them through the primary and post-primary school system. In the past, the individual model of disability was used in Ireland, and elsewhere, in which children were categorised as being either ‘normal’ or ‘handicapped’ (Giddens, 2009), with separate educational provisions made for each group.

The National Council for Special Educational Needs (NCSE, 2003), established under the *Education for Persons with Special Educational Needs Act* (2004) (Government of Ireland, 2004), provides the legal basis for the principle of inclusive education for pupils with special educational needs. The Act outlines procedures for conducting assessments of pupils who have special educational needs. The NCSE is required to prepare a report setting out what needs to be done for the Act to be fully enacted. Today, pupils with disabilities (depending on the severity of the disability) are socially included in mainstream classes, as well as the traditional provision in special schools and special classes. If pupils complete second level education, then there is a greater possibility that they will attend third level education.

There is a plethora of legislation underpinning the social inclusion of students in HEIs with disabilities: the Equal Status Acts, the Employment Equality Act, the Disability Act, the Education for Special Needs Act and the Universities Act 1997. It is beyond the scope of this handbook to examine the intricacies of these laws, so only relevant aspects of the laws will be referenced. The Equality Acts (1998) prohibit discrimination on nine

grounds (age, gender, religion, disability, race, sexual orientation, marital status, family status, membership of Traveller community). Disability is defined, *inter alia,* as a *condition … which results in a person learning differently* (Lodge and Lynch, 2004). A student would be discriminated against on the ground of a disability when 'one person is treated in a comparable situation less favourably than another person on the basis that one has a disability and the other does not' (Lodge and Lynch, 2004, p. 77). The Employment Equality Act (EEA) (1998) provides protection for individuals against discriminatory practices and has significant implications for both providers and recipients of education, as the Act includes Colleges and Universities in its definition of employers. According to the legislation, an educational establishment discriminates against a student with a disability if it does not do all that is reasonable to accommodate that student. In an educational context, it has been established that a reasonable accommodation 'is any action that helps alleviate a substantial disadvantage'. Making a reasonable accommodation could involve changing procedures, modifying the delivery of a course, providing examination arrangements, altering the physical environment, or providing additional services, such as assistive technology, materials in alternative formats e.g. audio recordings, or extra tuition. Unfortunately, independent HEIs do not receive funding from the state; consequently, IHEIs may not, under some circumstances, be able to provide 'reasonable accommodation' due to budgetary constraints. Currently, HECA is seeking to redress funding towards a model where the funding follows the student, rather than the HEI.

Reasonable Accomodation

Students have a choice of whether or not to disclose their disability but, if they wish to receive 'reasonable accommodation', they need to disclose the disability. Students with hidden disabilities such as mental health issues should also be accommodated (Whitaker, 2016). The *National Plan for Equity of Access to Higher Education 2008-2013* (HEA, 2008*)* states that 'good practice for access becomes good practice for all learners throughout the institution'. Higher Level education providers must have Quality Assurance Policies. According to AHEAD, 'Institutions have quality assurance procedures that capture the voice of all students including students with disabilities and those from other minority groups'. (AHEAD, 2010) On its website, AHEAD provides a myriad of resources for lecturers/tutors, students and for Colleges. Lessons at 3rd level should be designed using the principles of 'universal design for learning' (UDL) to promote social inclusion and to meet the learning needs of all students.

Self-Care

It follows that, if we are concerned with student wellbeing, we must also model good practice and care for our self. With increasing student numbers, decreasing resources in HEIs, deadlines, pressure to publish, and increased teaching loads, many academics may feel stressed or may become burnt out, lose interest in their students, or become cynical and disillusioned (Bell, Rajendran and Theiler, 2012). It is important, therefore, that academics attend to their wellbeing and mental health. Although, mental health issues affect most families in Ireland, they are still stigmatised and swept under the carpet. This prevents people from seeking treatment; it is better to bring them out into the light of the day and explore the ways in which we can improve our mental health and wellness. The positive dimension of mental health is stressed in the WHO's definition of health in its principles and constitution. According to the World Health Organisation (2013 p.6), mental health is:

> a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community … Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity. (WHO, 2013).

Mental Health Ireland is a voluntary organisation, which started in 1966, with the aim of promoting positive mental health and wellbeing. Each year, they have a special week designated to promote wellbeing. We took up the challenge in Hibernia College. We put posters with mental wellbeing messages on the walls, put up a notice board in the kitchen with 'stickies' for giving each other compliments; a gratitude jar was also put on the table so that employees could note the things they feel grateful for. The college also hosted a webinar each day during the Mental Health week (9th -15th October 2016). A theme was provided for each day: connect, take notice, keep learning, and give. I was asked to give a webinar on the theme of giving. (See: www.mentalhealthireland.ie/mhi-campaigns/mental-health-week-2016/).

Give yourself a break!

In recent times, there has been much research in the area of positive psychology and on how we can build our wellbeing. Research has focused on the importance of fun and pleasure and how it contributes to wellbeing and happiness. To give to others, we need to give to ourselves, by building on our own strengths and capacities. According to Carruthers and Deyell-Hood (2004, p. 225), psychological wellbeing is based on personal growth, self-acceptance, environmental mastery, positive relationships, self-determination, and a sense of purpose in life. They suggest that we should seek out

opportunities to experience pleasure and positive leisure experiences (Carruthers and Deyell Hood, 2004). According to the UN *World Happiness Report*, Denmark is the happiest country in the world. It was ranked first in 2013 and again in 2016 (UN, 2016). Ireland ranked 19th. Denmark scored highly in relation to: 'Satisfaction with life', 'Happiness level' and 'Feeling in control of their life'; they had low scores related to 'Social isolation' and 'Experienced stress yesterday'.

The Happiness Research Institute (HRI) argues that it is more difficult to be unhappy in an otherwise happy society. There are strong feelings of joy and connectedness and people have a sense of purpose. Wellbeing inequality has a larger impact on our lives than economic. Social media plays a big part in our life, these days, but it can lead to unhappiness. According to RI, when people take a break from Facebook, it improves their mood (HRI, 2016). They conducted an experiment with just over 1,095 people. One half continued to use Facebook and the other half took a break from it. At the end of the week, the people, who had taken a break from Facebook, were doing better. They argue that people show their best selves on Facebook, so it always looks like they are having a great time but social media distracts our perception of reality. Exposing ourselves to other people's happiness can have a negative effect on our own happiness and can reduce our self-esteem because we make social comparisons and think everybody is having a better time than us (HRI, 2016).

Give thanks!

We hear a lot about anti-social behaviour and not enough about pro-social behaviour. There is much research that shows that there is a positive relationship between expressing gratitude and happiness or wellbeing, in developing a pro-social approach. It helps in personal on-going relationships. Focusing on events for which you are grateful leads to increased life-satisfaction and optimism (Bartlett and DeSteno, 2006). Expressing gratitude can improve your mood. Gratitude has been labelled '*not only the best, but the parent of all other virtues'* (Cicero, 1851, cited in Bartlett and deSteno, 2006, p. 319). When we thank people sincerely, it makes them feel appreciated. Gratitude … *Nurtures social relationships through its encouragement of reciprocal, prosocial behavior between a benefactor and recipient* (Bartlett and deSteno, 2006, p. 319). Daily and weekly practice of gratitude increases wellbeing and hope and people should get into the habit of writing things that they are grateful for, in a reflective diary or on their phone (there are many free gratitude apps).

- I'm so very grateful for …
- Write letter that express's gratitude
- Virtual social support is just as good!
- Count your blessings - once a week is effective

Other practices that improve well-being are: practice random acts of kindness (5 a day) vary the act, cultivate your strengths, for young people to visualise your ideal future selves, for older people to look back at your legacy (Lyubomirsky and Layous, 2013). Bartlett and deSteno (2006) suggest that there is a growing body of research that provides evidence that '*focusing on events for which one is grateful for can lead to increased life satisfaction and optimism'* (p. 324). So, if you had a good time at Electric Picnic or any other event – talk to a friend about it. Be grateful for the fun you had.

Give someone you love or like a call!

Research shows that personal relationships are much more important to our happiness than material wealth. So, give your mum or dad, your sister or brother, your friend or partner a ring on the phone. According to the Happiness Research Institute):

> We tend to get it wrong when we think about our future happiness. We systematically overestimate how happy material goods will make us and systematically underestimate how happy we will be from immaterial goods such as improved personal relationships. The work life balance might be skewed due to this error. (Bruno Frey cited in HRI, 2016, p. 56)

Give a smile

Humour can lighten any stressful situation and smiling and laughter may improve our mood. Scientific research shows that smiling can enhance personal wellbeing and longevity (Jaffe, 2010).

Give to your community

Traditionally, in Ireland there was a practice of a *meitheal,* where people came together to save the hay (Arensberg and Kimball, 1937). Scientific research shows that volunteering in your community enhances wellbeing because we recognise the importance of being of service to something greater than ourselves. The Tidy Towns movement in Ireland has really helped to bring communities together and helps to create social cohesion. According to Happiness Research Institute (2014), there is a strong link between happiness and volunteering, at an individual and a societal level. People who work as volunteers are generally happier, for instance. The relationship seems to work

both ways: happy people often choose to do voluntary work, while their voluntary work increases their sense of happiness. One of the conclusions is that voluntary work strengthens social relationships, which are essential to people's happiness. The UN reported that Ireland ranks high in relation to social supports; in a Gallup World Poll, 95% of respondents said that they had someone to count on, compared to an international average of 80% (UN, 2016).

Mindfulness and Meditation

Giving to one's self by practicing mindfulness or meditation has been proven to increase wellbeing. According to Kabat-Zinn (2003, p.145), mindfulness is …*the awareness that emerges through paying attention on purpose, in the present moment, and non judgementally to the unfolding of experiences moment by moment*. Mindfulness is a process that involves awareness and is focused on the present, not the past, or the future. It involves becoming aware of internal and external experiences such as sights, smells, sounds, thoughts, and feelings. Mindfulness recognises that we all encounter problems and challenges in our lives. However, it strives to teach us techniques that we can use to help overcome the stresses associated with them. A useful technique is to write down our problems. Sometimes, this alone makes people feel better, as they feel they are transferring them out of their heads. Then, they should tear them up after writing them down. This can give people a sense of release from their stressors. Another idea is to imagine a box on the floor and to put your worries into this box or set them on fire! There are many free apps available for helping us to become more mindful, such as *Headspace* and *Breathe*.

Incorporating mindfulness into teaching in HEIs

Finally, the benefits of incorporating mindfulness as a contemplative pedagogy into third level education have also been proven (Glanville, Iwashima and Becker, 2014). Contemplative pedagogies may focus on issues such as mindfulness, meditation, reflection, obligation, loving kindness, goodness, presence, free writing, voluntary work, experiential learning, contemplative first-person learning, intuitive knowledge, expanded consciousness, unconditional compassion (Coburn *et al.*, 2011; Zajonc, 2013; Sable, 2014; Mah y Busch, 2014; Weare, 2012). The real issue for teacher and students is that learning is, not simply about curriculum content or grades, but about acknowledging our basic humanity in order to foster individual mental wellness (Kabat-Zinn, 2003). The Association for Contemplative Mind in Education seeks to develop the contemplative

aspects of teaching, learning and knowing in higher education: http://www.contemplativemind.org/programs/acmhe .

Key messages

1. Reflect on your own personal characteristics and your own experiences of being a learner and begin thinking about developing a personal philosophy of teaching based on your values, experiences and approaches to teaching and learning.
2. Educators need to bear in mind the wellbeing of their students. A significant minority of Irish students exhibit signs of stress and poor wellbeing. In order to give to students, teachers need to nurture their wellbeing.
3. Be aware of social policy and legislation that prohibits discrimination. The Equality Acts prohibit discrimination on nine grounds (age, gender, religion, disability, race, sexual orientation, marital status, family status, membership of Traveller community). Think about the characteristics of students and how you can ensure their social inclusion.

Toolkit 3

Activity 1

Please go to the AHEAD website to discover the seven principles of universal design, contained in their *Charter for Inclusive Teaching and Learning*. https://www.ahead.ie/userfiles/files//documents/Charter_4_Inclusive_Teaching_&_Learning_Online_Version.pdf

Find out how you can design lessons at the following two websites. http://www.cast.org/our-work/about-udl.html#.V4j2KGNhyJV

National Centre on Universal Design for Learning: http://www.udlcenter.org

Activity 2

Reflect on how you socially include students who may have a learning difficulty; for example, how do you include a student who has been assessed with dyslexia?

How do you include a student with an anxiety related disorder?

Activity 3

The HEA gathers data on student wellbeing. Please read Health and Wellbeing (pp. 23 - 24) in the report, *Eurostudent Survey V Report on the Social and Living Conditions of Higher Education Students in Ireland 2013*. http://www.hea.ie/sites/default/files/eurostudentv_final.pdf.

How does your college support students' wellbeing? Do you have a counsellor or someone who you could refer students to, if s/he should be facing severe stress?

The ISSE survey also gathers data about student engagement.

Activity 4

It is also important to explore the reasons why students leave HEIs. Please read the executive summary of the report: *Why Students leave: Findings from Qualitative Research into Student Non-Completion In Higher Education in Ireland* (Moore-Cherry, Quin and Burroughs, 2015).: http://www.teachingandlearning.ie/wp-content/uploads/2015/07/Project-4.pdf

List the five major reasons why students withdraw from HEIs.

Activity 5

Fitzmaurice and Coughlan (2007, p.41) suggest that teaching philosophy statements should be short and incorporate four sections. Read the chapter 'Teaching Philosophy Statements: A Guide' by Marian Fitzmaurice and Joseph Coughlan in *Teaching Portfolio Practice in Ireland* (O'Farrell, 2007).
https://www.tcd.ie/CAPSL/assets/pdf/Teaching_Portfolio_Practice_in_Ireland.pdf

Activity 6

Explore the Learning Innovation Network – the flagship teaching and learning initiative http://www.lin.ie

Activity 7

Explore Student Led Learning, a special interest group of Lin, and discover what the Student Led Learning Resources are. http://www.lin.ie/sll/

Activity 8

Reflect on what you have learned in this chapter. Start writing your teaching philosophy statement.

Activity 9

What evidence will you provide for your teaching portfolio?

Chapter 4 Critical Reflective Practice

Introduction

The second domain of the *Professional Development Framework for all staff who teach in Higher Education* (2016) focuses on: Professional Identity, Values and Development in Teaching and Learning'. It emphasises the importance of the development of self-evaluation of the new teacher's professional identity and its associated roles, responsibilities and action plans. It encourages staff and faculty (consider their professional identity in their education context and at that point in time.

This chapter begins with an exploration of the development of a professional identity as an academic or new teacher in third level education. It explores the role of critical reflection in creating this identity, using self-reflection, feedback from students, peer review, engagement with literature and the role of the external examiner. The importance of research for IHEIs is extrapolated and an example of self-study action research is explored. The role of the research supervisor is briefly discussed and finally the important role of the librianian as an ally in education is explored.

Learning Outcomes

On completion of this chapter, the successful learner will be able to:

1. Articulate a professional identity and identify unique features of their current roles and responsibilities that potentially impact on teaching and learning practice
2. Evaluate their teaching and its impact on student learning based on self/peer review/observation and other evidence
3. Develop an evidence-based, reflective professional development learning plan

Development of Professional Identity

Our professional identity may be bound up in our qualifications, such as being a doctor, nurse, engineer, and psychologist, however, those teaching in HEIs need to create another identity based on the scholarship of teaching and learning. This is most important, not only for those teaching full time in higher education, but also for part-time or adjunct faculty, who may have a full time career in another industry and who teach on a part time basis in a HEI. According to the *National Strategy for Higher Education to 2030 – Report of the Strategy Group* (DES, 2011), it is not sufficient for academics to be experts in their disciplinary area; they also need to know how best to teach that discipline. They need to have an understanding of learning theories, and to know how to

apply these theories to their practice. They need to appreciate what teaching and learning approaches work best for different students in different situations (DES, 2011, p.59), as it was stated in the foreword that many of those who teach in IHEIs are part-time contract workers who may be an industry expert/practitioner (Coughlan, 2015). In Coughlan's survey, over one third of the part-time workers were from an industry other than teaching. This person brings a wealth of real world practical experience to their teaching and their students gain insights into the industry, which may improve their employability. Coughlan (2015) suggests that the industry/expert practitioner may be a portfolio worker with a number of different roles. It is important for IHEIs to forge links with industries, particularly for vocational subjects. However, teaching may be a challenge for them because industry workers may lack the experience of the academic world and institutional practices (Coughlan 2015). That said, some industry workers working in HEIs said that their 'professional needs were met by their industries/professions' (Coughlan, 2015, p. 94).

According to Biggs and Tang (2007), it is only in recent years that there is recognition that the scholarship of teaching and learning (SoTL) is underpinned by research and knowledge. Teachers should keep themselves up to date with knowledge about teaching, and apply that knowledge reflectively to their own teaching; HEIs should have a genuine SoTL culture that supports transformative reflection, with regard to teaching (Biggs and Tang, 2007, p. 264). One way in which we can build a professional identity, as a lecturer/teacher/tutor, is to engage in reflective practice (Biggs and Tang, 2007).

Becoming a reflective and reflexive practitioner

The professional development framework emphasises the importance of reflective practice. It is notable that John Dewey, one of the founding fathers of education, highlighted the importance of reflective practice in a book entitled *How we think* (Dewey, 1910). According to Dewey, thinking is an automatic everyday activity, like breathing, eating and sleeping, however, it needs to be trained to think well so that we can channel our natural curiosity into more productive creating thinking. The training of thought involves cultivating the mind and developing habits of critical examination and enquiry. He likens teaching and learning to buying and selling. Can one say that they have sold something if no one has bought it? Can we say that we have taught something if no one has learned it? Drawing from Greek philosophy, he suggests that curiosity or wonder is the mother of science. This curiosity about a phenomenon leads to a transformation in how we think as we gather evidence to feed our curiosity. Our task, as teachers, is to keep alive the spark of wonder in our learners. He suggests that we cannot teach others to think but we can foster powers already in the learner. Dewey proposes that we apply

logic to our thinking: we scrutinise or deliberate on it, and then we gather our thoughts and apply the scientific method of induction and deduction to them. He argues that reflection involves a double movement, from having partial data, from which we try to draw inferences (induction), to a teasing out of the facts to relate them to other facts (deduction) (Dewey 2010). Rodgers (2002, p. 845) teased out what Dewey meant by reflection and postulated the following ideas (Rodgers, 2002).

Reflection as a meaning making process

Reflection is a meaning-making process that moves a learner from one experience into the next with deeper understanding of its relationships with and connections to other experiences and ideas. It is the thread that makes continuity of learning possible, and ensures the progress of the individual and, ultimately, society. It is a means to, essentially, moral ends. Reflection is a systematic, rigorous, disciplined way of thinking, with its roots in scientific inquiry. Reflection needs to happen in community, in interaction with others. Reflection requires attitudes that value the personal and intellectual growth of oneself and of others (Rodgers, 2002, p. 845). John Dewey (cited in Simpson et al. 2005) exhorted teachers to, not only be passionate about their subject, but also to love their students and to teach out of a love of teaching, rather than out of a sense of obligation. He also suggested that teachers be enthusiastic, imaginative and creative and have a vision (Simpson, Jackson and Ayock, 2005). Vygotsky's believed that that the teacher should enable the student to reach the zone of proximal development by scaffolding their learning, to bring them to a new stage of learning (Vygotsky, 1978).

Purpose of reflection

Hughes and Moore (2007) suggest that teachers in higher level institutions have gained much tacit knowledge through their studies and experiences, but the purpose of reflection is to make this tacit knowledge overt so that they can build on their practice in order to develop a repertoire or a tool kit for solving problems in the future (Hughes and Moore, 2007). They draw on the work of Schön (1983), who drew a distinction between reflection-in-action (adjustments to practices during the actual practice) and reflection on-action, which happens during the critical reflections afterwards. These reflections may lead to new theories or ideas on how to improve our practice. Becoming a professional and enhancing our teaching practices involves critically reflecting on feedback from our students and peers. It means becoming a reflective and a reflexive practitioner. Reflexivity means that we are part of the social world that we are teaching in; it requires us to examine our own biography to see how it impacts on our students (Marshall and Rossman, 2006). Critical reflections may involve the use of reflective journals and

teaching portfolios. Mezirow (1990) draws on Jurgen Habermas' (1984) theory of instrumental and communicative learning. He suggests that reflection involves a 'critical review of distorted presuppositions' (p.18) in order to bring about a transformed view or transformative learning. Ultimately, this critical reflection will have an emancipatory effect on the learner because they will be able to 'transform old ways of understanding, and act on new perspectives'. He argues that critical self-reflection should take place within a dialogic community in order to bring about social change (Mezirow and Associates, 1990). Biggs and Tang (2007) suggest that reflective teaching is, not simply about learning a group of competences about teaching, but rather is rooted in the belief that teaching is a deeply personal exercise and teachers will have to work out their own solutions. Brookfield (1995) provides four lenses for critical reflection: the self, the student or learner, colleagues, and literature.

Reflection on one's self

Throughout this handbook, the importance of reflection on one's own teaching and assessment practices is emphasised. Brookfield (1995 as cited in Miller 2010, p. 1) suggests that self-reflection is the foundation for reflective teaching. Egan and Costello (2016, p. 2931) argue that teachers gain insights into their own strengths and limitations through reflection, which will ultimately benefit teachers when they want to improve the knowledge, skills and dispositions of their learners (Egan and Costello, 2016). Critical reflection requires looking back at one's teaching and seeing what went well or what could be improved. A critical incident model (Biggs and Tang, 2007, p. 44) could be used (see Appendix 3). In Appendix 5 you can see an example from my own teaching practice where I used a critical incident model to reflect on a one-day research methods workshop with post-graduate students.

Student feedback

Painful though it may be, we do not know how effective our teaching is if we do not ask our students what their experiences of our teaching is. Brookfield said that it is of 'utmost importance'; the student lens reveals 'those actions and assumptions that either confirm or challenge existing power relationships in the classroom' (Brookfield, 1995, cited in Miller 2010, p. 1). Feedback may take the form of module and programme evaluations, feedback on forums, etc. Moore and Kuol (2005) provide a good overview of the issues involved in Student Evaluation of Teaching Systems and argue that teachers can achieve significant advances in their own teaching practices if they engage in a positive way with feedback (Moore and Kuol, 2005).

Peer review/Observation

To ensure the quality of teaching in IHEIs, peer observation and feedback may be part of a teacher's contract or part of Quality Assurance Policy. Brookfield argues that excellent teachers will engage in this process and get advice and feedback from colleagues and mentors. Whereas third party observations were common in the United States since the 1960s, it was only in recent decades that they became commonplace in Irish HEIs (McMahon, Barrett and O'Neill, 2007). UCD carried out a study of peer observation of 22 teachers, where access to the information was strictly in the hands of the teacher being observed and the observer complied with a strict code of confidentiality (McMahon, Barrett and O'Neill, 2007). Teachers' written reflective feedback was analysed and six dimensions of control were identified:

1. Control over whether to participate or not.
2. Choice of observer
3. Control over how feedback was given
4. Control over data generated by the observer
5. Control over how this data would be used.

All teachers believed that it was very important to choose the observer. One teacher stated:

> The most important part of the process was the ability to select a peer-mentor I could feel comfortable with. I wanted to select someone who was an experienced teacher who could help me identify areas that needed further development, someone who would not be judgmental, but rather constructive and open. Finally, I wanted someone with whom I could continue to discuss my teaching practice over time (McMahon, Barrett and O'Neill, 2007).

Teachers believed it was important to have a meeting before the observation to tease out what the teacher wished to learn more about; for example, one teacher wanted to see whether he/she was promoting active learning in the classroom. Teachers were also concerned that the data would be treated as confidential. One teacher said:

> … peer-observation as practised in UCD, has several very positive features. It is non-threatening. It is confidential. As I have developed a trust relationship with the observer it will likely become progressively more useful to me and my students as time goes by *(McMahon, Barrett and O'Neill, 2007*).

All teachers believed that the peer observation process, where they had choice, control, and confidentiality, helped them to try new teaching pedagogies and get feedback on them, as exemplified in the following statement:

> I asked my peer to observe: a 'traditional' style first year lecture a new approach (for me) with my second year course where I divided the class into small groups and asked them to solve some problems during the lectures. This was my first attempt at using such a technique. I chose to have the first year lecture observation carried out first because I was confident about my ability to do this well. I was more nervous about the second observation as it was a first time experience for me in trying out a new teaching method . . . The process has to some extent re-energised my teaching (McMahon, Barrett and O'Neill, 2007)

I will provide an example in Appendix 4 and 4a, of when I self-evaluated and was peer reviewed by a colleague for an online tutorial (Level 9). Hibernia College provides the observer and observee with a pro forma.

Engagement with Theories of Teaching and Learning

Brookfield's fourth lens for fostering critical reflective teaching is grounded in literature on the scholarship of teaching and learning. It was stated earlier that the scholarship of teaching and learning has only been recognised in recent years and is underpinned by research and knowledge (Biggs and Tang 2007, 2011). We will return to the scholarship of teaching and learning in the next two chapters. Teachers, who conduct research, write scholarly papers, and present them at conferences demonstrate a mastery of the language of pedagogies and best practice (Brookfield, 1995, cited in Miller, 2010, p. 1). Brookfield's lenses could be extended to include the role of the external examiner as a fifth lens.

Role of the External Examiner (the fifth lens)

The external examiner plays an important role in ensuring that the standards of academic qualifications on a particular programme are upheld. Their objective and independent stance ensures that module and programme learning outcomes are in compliance with the level of the qualification and in compliance with national standards, as set out in the National Framework of Qualifications. The external examiner normally has a three-year term, which allows him/her to observe the progression of a programme and make decisions on whether anything needs to be changed. He/she reviews the assessment procedures and reports findings to the programme director. Their reports are a valuable source of feedback, and recommendations should be taken on board by the programme director and team in order to enhance the student's learning (QQI, 2015). The scholarship of teaching, learning, and assessment is underpinned by research; we will now turn our attention to the important role of research in IHEIs.

Research

National and international policies highlight the important role of research in Higher Education Institutes. In the policy document, *Charting Our Education Future – White Paper on Education* (Department of Education and Science, 1995), the role of research in higher education is described as follows:

> The role of universities as discoverers and disseminators of knowledge sets the context within which links emerge between research and teaching. The value of research also reaches into the spheres of technological development and international competitiveness: the higher education sector is a major supplier to research efforts in Ireland (DES, 1995, p. 114).

The importance of research for education and policy making is emphasised.

> Research can be a potent agent of change. It provides a basis for questioning assumptions, problem identification, the evaluation of alternatives and the assessment of the outcomes. When linked with relevant research, the process of policy making facilitates and supports effective change. Research also provides for and underpins a creative continuity within the education system. By providing continual feedback of information to the system, educational research sustains the beneficial aspects of the system while at the same time stimulating creativity and development (DES, 1995, p. 211).

The *National Strategy for Higher Education to 2030 – Report of the Strategy Group* (DES, 2011) acknowledges the central role of research in changing Ireland into an 'innovation society' (p. 3) and for Ireland's economic, cultural, and social development. High quality research is an integral aspect of teaching. This report argues that the three interconnected roles of higher education are teaching, learning, research, and engagement with wider society and presents a vision of Irish higher education for the future that can address the social and economic challenges through the three interconnected roles. It highlights the importance of investment and capacity building in research, and posits the close relationship between research and teaching, and the economic importance of linkages between research and enterprise. Research in HEIs influences the formation of students, in particular at post-graduate level, where students learn how to research and 'participate in the advancement of knowledge', where the knowledge they gain by doing research can be transferred through their careers and work to wider society. Research also informs curriculum design and lecturers/teachers who are research active can inspire their students. According to the Irish Universities Association (IUA), research is also inextricably linked to teaching, learning, and the transfer of knowledge. It enhances the education of all students, who, in turn, will create new knowledge that ultimately will address social and economic issues. Irish universities

are now ranked 20th in the world in terms of the international impact of research; Ireland is now ranked with countries like Australia and France for research outputs (IUA).

Research, as a vital ingredient in creating a knowledge-based higher education system, is also reiterated by *Standards & Guidelines for Quality Assurance in the European Higher Education Area* (ESG, 2015):

> Higher education, research and innovation play a crucial role in supporting social cohesion, economic growth and global competitiveness. Given the desire for European societies to become increasingly knowledge-based, higher education is an essential component of socio-economic and cultural development. At the same time, an increasing demand for skills and competences requires higher education to respond in new ways (ESG, 2015, p.6).

The centrality of research to good teaching is highlighted in the HLG (2013).

> There is no contradiction between the imperative of good teaching and the imperative of research which critiques, refines, discards and advances human knowledge and understanding. Good teaching, in many subject areas, is only good to the extent that it is informed by the latest research (2013, p.13).

Quality teaching and learning has broad horizons, taking place in a research-rich environment, where the subject matter is driven by the latest knowledge and research, delivered in a way that encourages students to develop academic literacy and both subject specific and generic skills, which they can apply immediately in the real world, especially in the labour market. The best teaching encourages students to be aware of, and to draw on, the research, not only of the teacher, but also of fellow academics within and beyond the university or college, including internationally. In this era of increasingly rapid globalisation, the teaching and learning experience for all students must be globally connected, enabling students to develop an understanding of how their subject is viewed and pursued in different parts of the world (HLG, 2013, p.19).

There is an increasing focus on the development of evidence-based approaches to all aspects of teaching, learning, assessment, and ensuring that students have a positive experience in college. It is imperative that those teaching in HEIs draw from current research, not only in their own academic discipline, but also in the area of TLA. A national analysis of 2,275 records, relating to teaching and learning research in Irish HEIs, was conducted (O'Sullivan *et al.*, 2015). The dominant themes to emerge were: Research on course design, teaching and learning, and quality and student experience, as described in the table below.

Table 5. Research on Teaching and Learning in Irish HEIs

Major Research themes	Major sub-themes	Records
Course design	Technology Enhanced Learning	2,069
Teaching and Learning	Theories of Learning	1,571
Quality	Teaching interventions or module enhancement	860
Student experience	Diversity	486

(Source: O'Sullivan et al., 2015, p.29)

The majority of all research (62%) was conducted on teaching and learning, with three major sub-themes: technology enhanced learning (TEL), workplace and employment skills, and assessment. Research on TEL focused on e-learning, or online learning, 'how to' guides and application of the effectiveness of technology. This theme overlapped with assessment and the use of computers for formative, summative, and peer assessment. Other studies focused on plagiarism software, and staff training, the virtual learning environment (VLE), blended and collaborative learning, and the use of Moodle or Blackboard. Studies were also concerned with how student engagement can be enhanced through the use of technology.

In terms of theories of learning, the most important sub-themes were problem based learning (PBL), reflection, active learning, peer assisted learning and the flipped classroom; thus reflecting a concern with pedagogical challenges and a focus on student centred learning. Regarding quality, the main sub-theme was teaching interventions and module enhancement, including module or programme delivery, study skills, research training, student feedback, and assessment. With regards to student experience, the main sub-theme was diversity, reflecting recent legislation on equality and the heterogeneity of the student body (O'Sullivan et al., 2015, p. 41). The report recommends that those working in HEIs should learn from this existing research and should identify gaps in the study to inform a strategic approach to research. Research should continue to be funded by national institutions. HEIs should reflect on whether it is best to have research activities spread across the institution or whether research should be focused on a research centre in the HEI. O'Sullivan (2015) suggests that Irish researchers should consider publishing their research in open access repositories.

Small colleges providing level 8 programmes may wonder how on earth they can incorporate research into their busy schedules of teaching, learning, and assessment. However, teachers researching their own practice using action research (McNiff, 2002) or self-study (Samaras, 2011) research methods can achieve this. In addition, students in their final year can do a research project or write a literature review on their choice of topic and present their research to other students or to the whole college. Position

papers can be written and published, as can literature reviews. Lunchtime seminars with guest speakers could be arranged, where attendance is encouraged. There is a myriad of ways in which research can be promoted. IHEIs could devlop a research strategy that incorporates the ethics and integrity of research.

Self-study Action research

Self-study or action research can be used to study our own teaching practices; for example, I teach research methods and I wanted to find out if I could enhance my teaching and my students' learning by collaborating with them. The Research Methods module was delivered over a nine-week period, with synchronous and asynchronous contact; there were nine online learning sessions (similar to lectures but delivered online with knowledge checks and quizzes built in) and nine tutorials. The asynchronous contact consisted of blogs and forum discussions, which I moderated. The assessment for the module consisted of two assignments: to critique a journal article, and to write a research proposal for the research they intended to conduct for their minor dissertation. I applied for and received permission from the Ethics Committee to conduct research with the students. I emailed all students with a research information sheet and, in tutorials, I explained what I was trying to achieve. I created a new forum thread for my own reflections. I reflected on my own values and how these inform my teaching and learning.

According to Samaras (2011), self-study is for improved learning or the 'so what' of what we do as teachers. It enhances our professional development and student learning and may even inform education programmes and policy. She advises teachers to write a research question; my research question focused on how I could facilitate students' learning of research methods. Samaras advises researchers to establish a critical friend team (my critical friend was the research coordinator who read my reflective journal and gave me feedback). The team consisted of a cohort of students who collaborated in the research. I observed my tutorials through listening back to them, and I observed, reflected on, and responded to the student posts on the forums. I critically engaged with the research on the scholarship of teaching and learning and the literature on self-study and action research. Self-study requires reflection, which is a personal process of thinking, refining, reframing, and developing actions (Samaras, 2011). According to Loughran and Northfield (1998, cited in Samaras, 2011 p. 54), 'self-study takes these processes and makes them public, thus leading to another series of processes that need to reside outside of the individual'. By posting my reflections on the online forum, I was making them public. I took Samaras' (2011) advice for gathering qualitative data:

- Keep a journal

- Document your insights, questions, and reflections
- Critical friend research memos
- Record your procedures
- Leave an audit trail so that your critical friend can assess the validity of your research
- Plan new pedagogies and interventions
- Evaluate new pedagogies and interventions
- Enact, document, and assess your research process
- Show your work to others/disseminate the research

See Appendix 5 for three selected entries from my reflective journal.

The outcomes of this small study were positive; that particular cohort achieved the best grades, to date, in Research Methods and also in their dissertations. However, I cannot attribute this success entirely to my self-study project and interventions because there were many other variables that I had no control over. One of the interesting issues to come up in the forum discussions was that students were not making best use of the online library; other students then provided advice about search engines and databases. This provided a very good example of peer teaching and peer learning.

Research Supervision

Students may engage in research at an undergraduate or post-graduate level. It is absolutely essential that IHEIs provide clear guidelines for the student and supervisor on all aspects of the research project. All research projects require ethical approval from a Research Ethics Committee. It is essential to ensure that students do not engage in research that is either unethical or lacks integrity. In Hibernia College, we have supervisor and student handbooks to ensure that the processes and expectations are transparent, with guidelines on how often the student and supervisor meet, along with the length and structure of the dissertation, deadline for submission etc. NAIRTL (2012) developed a resource entitled *Developing an institutional framework for supporting supervisors of research students, A practical guide*. This provides advice for research supervisors (NAIRTL, 2012).

The Librarian and the Library

No discussion of research or teaching would be complete without discussing the important role of the librarian in enhancing student learning. The librarian acts as

information specialist, teacher, subject expert, technical support, and team member. They are responsible for guiding and advising students from their orientation through to graduation, and helping to develop their information skills, along the way. They also play a key role in developing and updating reading lists, in consultation with faculty. Training and support are also an essential part of the librarian's role. According to Audrey Geraghty B.A. DLIS (Librarian, Hibernia College, 2017):

> Librarians are increasingly combining their traditional role in physical libraries with an online presence. This brings additional challenges as they strive to embed the library into the virtual learning environments, of their institutions. The challenge is to provide seamless access to high quality online materials to support students and faculty on a variety of programmes. Access issues and modes of authentication can cause frustration for students, as they expect the online library to be available at all times.

The librarian's role has changed dramatically over the last few decades. In 2002, 300 librarians were involved in compiling a list of the big issues facing academic librarianship in the USA. These issues included, 1) recruitment, education and retention of librarians, 2) role of library in academic enterprise, 3) impact of information technology on library services, 4) creation, control and preservation of digital resources, 5) chaos in scholarly communication, 6) support of new users, and 7) higher education funding. Librarians emphasised their central role in higher education, in terms of intellectual stimulation, being educationalists, and promoting information literacy (Hisle, 2002). Bell and Shrank (2004, p. 372) suggested that 'academic librarianship is at a critical professional juncture' due to the Internet and easily accessible search engines such as Google Scholar. They suggest that the role of the librarian needs to be reinvented into the blended librarian. A blended librarian is one who has been educated in pedagogy, and the skills and knowledge underpinning instructional design theory and practice. These skills can be added to their existing library and information technology skills (Bell and Shank, 2004). In some countries, librarians have taken teacher education courses. For example, Austin and Bhandol (2013) report on research conducted in a UK university. Librarians participated in a teacher education programme (Post Graduate Certificate in Higher Education). Librarians had an established identity as a librarian and reported feeling a lack of legitimacy in the teacher role. They suggest that librarians need to be supported if they are also to take on a teaching role in the library (Austin and Bhandon, 2013).

Key Messages

1. It is not enough for teachers in IHEIs to be experts in their disciplinary area; they also need to know how best to teach that discipline. They need to have an understanding of learning theories, and to know how to apply these theories to

their practice. They need to appreciate what teaching and learning approaches work best for different students in different situations. They need to be fully conversant with SoTL and take on a new identity as a teacher in 3rd level education.

2. One way of becoming aware of our teaching practices is to engage in reflective practice. Reflection is a systematic, rigorous, honest, self-critical, disciplined way of thinking, with its roots in scientific inquiry. Reflection requires attitudes that value the personal and intellectual growth of oneself and of others and ideally should happen in interaction with others.
3. Brookfield proposes four lenses through which we can engage in reflective practice: self-reflection through a reflective journal, reflect on feedback from students, reflect on feedback from peers, reflect on the scholarship of teaching and learning, and, I suggest, in addition, a need to reflect on the feedback from the external examiner.
4. At the heart of good teaching is research and evidence based practice. IHEIs need to develop a research policy and strategy on how best to promote research. Teachers also need to engage in personal situated research projects.

Toolkit 4

Activity 1

What values do you bring to teaching?

Watch Bill Ayers – The call to teach: https://www.youtube.com/watch?v=xQIEcXS5uQw

Activity 2

What are Brookfield's four lenses?

Read Brookfield's Four Lenses: Becoming a Critically Reflective Teacher.
http://sydney.edu.au/arts/teaching_learning/academic_support/Brookfield_summary.pdf

Activity 3

Watch the following YouTube video: Reflective Practice – Philip Dawson - Monash University: https://www.youtube.com/watch?v=r1aYWbLj0U8

Activity 4

Watch the following YouTube video: Cheryl Reynolds - The 3 minute Kolb:
https://www.youtube.com/watch?v=ObQ2DheGOKA

Activity 5

Read *A Resource for Planning Personal Development: Individual Staff* (2016).
http://www.teachingandlearning.ie/wp-content/uploads/2016/03/Resource-for-Planning-Personal-Professional-Development-March-042016forWEB.pdf

Activity 6

What is your reflective professional development learning plan for next year, and the next five years? Make a start on your plan:

Professional Development Plan

- My short term priorities for next year…
- My long term aims for next five years…

Activity 7

Read Chapter 3 of the National Strategy for Higher Education to 2030 – Report of the Strategy Group (DES, 2011)

What are the key recommendations on page 61-62?

Activity 8

Explore the following website: University of Leicester Peer Observation of Teaching. http://www2.le.ac.uk/offices/lli/developing-learning-and-teaching/enhance/peer-observation-of-teaching-1

Activity 9

Explore Trinity College Dublin's website on Teaching and Learning https://www.tcd.ie/CAPSL/TIC/guidelines/

https://www.tcd.ie/CAPSL/TIC/accessible-info/powerpoint/index.php

Activity 10

Read Moore and Kuol's (2005, p. 146) recommendations for *Standardised Student Evaluation of Teaching Systems*. http://www.aishe.org/readings/2005-1/moore-A_punitive_bureaucratic_tool_or_a_valuable_resource.pdf

Activity 11

Professor Jean McNiff and Professor Anastasia Samaras have very generously created open access resources for those interested in Action Research and Self-Study Research. Please explore these resources and consider how you might carry out a self-study research project.

- Jean McNifff : http://www.jeanmcniff.com
- Anastasia Samaras http://www.sagepub.com/samaras/selfstudy.htm and http://teaching-insideout.com
- Open Educational Resources (OERs) for research students http://www.readytoresearch.ac.uk

Activity 12

Reflective Practice

Answer the following questions in your reflective diary:

- What are your current roles and responsibilities, and what unique features of these roles and responsibilities impact on teaching and learning practice (external examining, industry liaison, outreach activities)?
- Do you get feedback from your students? Have you found their feedback helpful? Have you changed any aspects of your teaching, learning, and assessment as a result?

- Have you been peer reviewed? If yes, what did you learn from this process?

Activity 13

What evidence will you provide for your teaching portfolio?

Activity 14

In the word quiz below, find 21 words associated with **reflective practice** (solution in Appendix 2).

C	K	O	U	A	T	F	R	X	N	U	D	E	N	S
Z	H	A	Q	A	C	I	H	O	P	I	D	N	O	Y
L	P	A	C	R	G	A	I	Z	S	Q	W	T	I	S
L	A	I	R	O	Y	T	D	C	L	E	Y	H	T	T
V	T	S	R	A	A	H	I	E	L	E	K	U	A	E
W	I	O	R	U	C	P	P	L	M	R	F	S	V	M
A	U	S	L	E	L	T	B	O	O	I	B	I	O	A
S	Z	A	I	I	V	E	E	W	S	Z	C	A	N	T
K	V	Z	N	O	I	I	T	R	G	O	C	S	N	I
E	M	E	S	N	N	E	N	J	I	A	L	T	I	C
G	D	L	G	T	N	E	D	U	T	S	P	I	M	N
E	V	I	T	A	N	I	G	A	M	I	T	C	H	Q
R	E	F	L	E	C	T	I	O	N	G	F	I	S	P
Y	T	I	S	R	E	V	I	D	F	L	E	S	C	E
K	N	O	W	L	E	D	G	E	D	E	S	I	G	N

Chapter 5 The Teaching and Learning Environment

Introduction

The third domain of the *Professional Development Framework for all staff who teach in Higher Education* (2016) focuses on 'Professional Communication and Dialogue in Teaching and Learning'. It emphasises the development of academic writing and enquiry skills to enhance teachers and students' learning. It encourages teachers to examine the myriad of communication skills required for different teaching and learning environments. To enhance teaching, learning, and scholarship, teaching should not be regarded as an isolated activity but rather should involve peers and teams in terms of the curriculum team discussion.

In this chapter, we will examine curriculum design, and the numerous ways that we deliver the curriculum to students, including lectures, tutorials (face-to-face and online), workshops, team teaching, the flipped classroom, storytelling, and quizzes.

Learning Outcomes

On completion of this chapter, the successful learner will be able to:

1. Develop an awareness of excellent academic writing skills for communication with students and peers
2. Foster engaging communication skills with students, colleagues, peers, and the wider community
3. Engage with the scholarship of teaching as it relates to teaching and learning environments such as the didactic lecture, tutorials, workshops, team teaching, the flipped classroom, storytelling, and quizzes

Academic Writing and Referencing

Academic writing is a style of writing that is synonymous with the academy or higher education institution. It is a genre of writing that builds on the shoulders of giants, those who currently publish, and those who have gone before us and have left rich repositories of writing. It can be very challenging for first year students to go, from a system of text books with facts/truths, to a system where knowledge is contested and which requires students to develop arguments based on peer reviewed published research and literature. It is very important that first year students receive classes on academic writing and the ways that they can improve their writing. It is also important that students have access to exemplars of good writing. Academic writing is very different from other types

of writing such as journalism or novel writing. Academic writing is part of a student's academic socialisation (Lennart, 2003). It can be seen as a craft. Students should improve as they progress through a 3rd level programme. Murray and Moore (2006, p.5) describe academic writing as an ongoing process:

> ... writing is not a single, homogenous, linear achievement towards which you strive and at which you one day arrive. Rather, it is the manifestation of your professional learning journey and it is (or at least it should be) a continuous process involving reflection, improvement, development, progress and fulfilment of various types and in varying measures (Murray and Moore, 2006)

Fortunately, one of the great advantages of the Internet is that many colleges have open source courses on academic writing. Academic writing draws from the published work of experts in particular disciplines, therefore, at the outset, students should be made aware of the particular referencing style for assessments of their programme, such as the Harvard and Chicago methods, or the APA (American Psychological Association). There are many YouTube videos and websites that explain how to reference correctly.

It is very tempting today for students to engage in plagiarism, to cut and paste from other documents and pretend it is their own work. Emerson *et al*., (2005) conducted two studies of undergraduate essays in New Zealand to determine the level of plagiarism and to develop strategies and interventions to reduce the level of plagiarism. They found one-to-one tutor clinics with students most effective. The tutor and student went through the assignment together, with the use of Turnitin, and were able to see where the student was making mistakes with academic referencing, particularly in the use of secondary sources (Emerson *et al*., 2005). They recommend the use of academic writing tutorials and personal sessions with a tutor to improve the level of referencing.

The penalties for plagiarism should be clearly stated in the Quality Assurance documents. More difficult for the college to prove, is impersonation, where a student buys an essay or pays someone else to write their assignment. It is beyond the scope of this handbook to tease out all these issues, they are simply being flagged and should be explored by the teacher and should be an aspect of QA policies.

Communication with students

When I was an undergraduate student in college, it was jokingly said that first year students should be treated like mushrooms, kept in the dark, with manure thrown on them. Thankfully, that disrespectful attitude to students has changed. Today, students are treated as equals, as clients of a system; they are partners in the learning process. However, unlike buying a commodity in the market place, the student also has responsibilities and obligations, in terms of his or her own learning (being aware of the

college calendar, getting assessments in on time, turning up for examinations etc.). Students are entitled to a good learning experience and a defined process in an IHEI. The office of the Ombudsman provides six rules for good administration, in terms of clients or customers; these can be adapted for how we should treat our students. These rules are 1) Get it right, 2) Be student oriented, 3) Be open and accountable, 4) Act fairly and proportionately, 5) Deal with errors effectively and 6) Seek continuous improvement. The ombudsman argues that these rules should not be applied mechanistically but that service providers should use their judgement in enacting the rules so that reasonable, fair, and proportionate results are arrived at in each circumstance (Office of the Ombudsman).

Student satisfaction and engagement is of critical importance, therefore keeping the channels of communication open is imperative; you treat them as you would other colleagues and how you would like to be treated yourself. Formal face-to-face communication with students happens in lectures, tutorials, workshops, drop in office hours, while other types of communication may occur digitally through online forums, blogs, and emails. It is also important to consider whether what is being communicated to the students is understood by them because misunderstandings may provide students, not only with a poor learning experience, but may open up a channel for litigation by the student. Dates for the communication of and outcome of an appeal should be clearly communicated (QQI, 2013). Other types of formal communication, such as programme and module handbooks, clear assessment guidelines, reading lists, clear deadlines for submission of assessments, calendar for academic year, stating dates of modules and assessments should be in place. Informal communication may occur in drop-in sessions or even on corridors. There are numerous ways of communicating through online social media such as Facebook, Twitter, and Snapchat, and online forums. In this chapter, we will look at communication with students in formal teaching educational situations, where learning takes place, such as the didactic lecture, tutorials, and workshops. First, it is necessary to look at what we teach (the curriculum).

Curriculum Design Team

According to Clancy (2015), the curriculum is the formal agenda of higher education. It denotes a carefully crafted learning journey for the student, from commencement to completion of their designated programme. The Standards and Guidelines for Quality Assurance in the EHEA (2015) states that programmes are at the heart of a HEI's teaching mission. Students are provided with academic knowledge and transferrable skills, which influence their personal development and future careers. They state that programmes (SEG, 2015, pp. 8-9):

- ‘Are designed with overall programme objectives that are in line with the institutional strategy and have explicit intended learning outcomes;
- Are designed by involving students and other stakeholders in the work;
- Benefit from external expertise and reference points;
- Reflect the four purposes of higher education of the Council of Europe (cf. Scope and Concepts);
- Are designed so that they enable smooth student progression;
- Define the expected student workload, e.g. in ECTS;
- Include well-structured placement opportunities, where appropriate;
- Are subject to a formal institutional approval process’.

In IHEIs, the curriculum design team may consist of the programme director and those discipline experts (faculty and adjunct faculty) who designed and will be teaching the modules. Other members of the programme team may include administrators and the librarian, technological experts, and support staff. The programme director oversees the development and rolls out the programme, and is accountable for all aspects of the programme. Typically, the person who designs the module will have expertise in the subject. The programme will have been validated by QQI (or another body) at a certain level on the NFQ. The programme learning outcomes need to be explicit and are required to be in constructive alignment with the module learning outcomes and with the learning outcomes of the assessments. Each module is accompanied by a reading list that will need to be updated each time the module is rolled out. The curricula should also be reviewed regularly to ensure that it is up to date, relevant, and current. According to the HLG:

> Curricula should be developed and monitored through dialogue and partnerships among teaching staff, students, graduates and labour market actors, drawing on new methods of teaching and learning, so that students acquire relevant skills that enhance their employability. (2013, p. 41)

Certain professional bodies may specify what they want to be included in the curriculum; for example, the Nursing Midwifery Board Ireland (NMBI) provides eight standards for nursing and sets out the Curriculum Design and Development (NMBI).

Trinity College, Dublin has provided a very useful free online resource for conceptualising how we might think about designing curricula: *Curricula Debates in Higher Education – an overview 2014/2015* (TCD, 2015). In conceptualising curriculum

design, this TCD handbook focuses on constructive alignment, curriculum as process, engaging curricula, threshold concepts and problem and enquiry based learning. Similarly, UCD have also provided an open access resource entitled, *Curriculum Design in Higher Education: Theory to Practice* (O'Neill, 2015). Having considered what we teach, we will now examine how we teach or how we deliver the curriculum.

Didactic Lecture

In Europe, the history of the university can be traced back 1,000 years to the university of Bologna in 1088 (Clancy, 2015). Visit any university campus and you will see buildings full of lecture theatres and smaller rooms for tutorials. Some of these lecture theatres may hold 500 students or more. Biggs and Tang (2007) suggest that teaching in the university is synonymous with 'lecturing', in which the lecturer shares his or her declarative knowledge (knowledge about theories, phenomena or subject specific) with a large or small body of students. Typically, lectures are formal learning situations where students are required to listen and take notes; the flow of information is from lecturer to student; some describe this as passive learning (Higgs and McCarthy, 2005). Lectures are teacher centred, but can easily be transformed into more interactive learning situations, where students are engaged and active learners; and where lectures are 'inspiring, exciting, provoking, and an effective learning mechanism' (Higgs and McCarthy, 2007, p. 37). Biggs and Tang (2007, p. 74) suggest that we should think of lecture theatres as 'situations in which a range of teaching/learning activities can take place, rather than as prescriptions for a way of teaching'. They argue that the 'most effective all-purpose teaching method is teaching students to be metacognitive, learning to manage their learning by themselves' (p. 74). To be effective, lectures should be carefully crafted with the intended learning outcomes specified at the beginning, followed by an overview of the lecture. To enhance engagement, lecturers should maintain eye-to-eye contact with the students, rather than reading from notes.

Lectures are usually one-hour in duration, however, research shows that there are diminishing returns for a one-hour lecture, with attention wandering after the first 15 minutes, therefore, some change in activity is required and lectures could be designed in small blocks. After the first 15 minutes of the lecture, a teaching learning activity (TLA) could be given to students in which they either, have to answer a question or identify the key points of the first 15 minutes, or devise a question which they write out and hand to the lecturer. A plenary session could be held at the end of the lecture with students reviewing the information either in pairs or with the lecturer so that learning can become consolidated, thus ensuring that students retain the knowledge. The idea is to move from a situation in which students are memorising knowledge to where they actually

understand it. A simple TLA (Biggs and Tang, 2007, p.115) exercise is for students to write a few lines:

- At the start of each lecture: What do I most want to find out in this class?
- Towards the end: What is the main point I learnt today? What was the main point I left unanswered in today's session?

Biggs and Tang (2007) suggest that students could swap answers and also hand them up to the lecturer, providing the lecturer with a good insight into students' thinking.

The value of the traditional lecture is that, if the lecturer is on top of his/her subject, they will be presenting the students with the most up-to-date knowledge in the field. Their expertise on a particular topic will shine through. Biggs and Tang (2007, p. 139) suggest that it should be thought of as a plenary session in which excellent learning takes place. Clancy (2015) argues that, for some college lecturers, teaching was seen as an art form rather than an applied science. He quotes the UCD Professor of Modern English and American Literature, whose idea of good teaching was:

> The best teaching I know is the kind in which the gifted teacher enters into communion with his subject. He is concerned with the relation between his mind and the activities involved in the scenes, images and figures of his attention. The role of the student is to overhear this communion between the teacher and his subject, and the more dramatic this communion is, of course, the more exciting the experience of being a student. (O'Donoghue 1977, pp. 35-36 cited in Clancy, 2015, p. 153).

To facilitate active learning, Higgs and McCarthy (2005) report on an experiment carried out in UCC towards the end of lectures, where students were given a short experiential task and worked in small groups reviewing lecture notes, asking questions of the lecturer, and then handing up the notes to the lecturer. Through peer interaction and argumentation, active learning was taking place and students ultimately developed their own arguments (Higgs and McCarthy, 2005).

Lectures could be recorded and made available to students who cannot attend, and lecturers could circulate their lecture notes or slides, or provide hand-outs at the beginning of lectures. Student learning may also be enhanced through peer teaching, which has great benefits for the student who is teaching and also the student who is learning. Peers may be more empathic than lecturers and be able to put themselves in the shoes of the learner. Cross year tutoring refers to students who are in a higher year than the students they are teaching (2nd, 3rd or 4th year student teaching first years).

Face to Face Tutorial

Tutorials or seminars typically accompany lectures and provide an opportunity for smaller groups of students to discuss issues from the lecture and to tease out the contents of the recommended readings. It is important that a tutorial does not become a lecture. In some colleges, tutorial attendance is compulsory; roll calls are taken and a percentage of the overall grade for the module will be given for attendance. Taking a roll call is also useful because in the final exam board meeting, if a student is in a borderline position, their attendance at tutorials is noted and may make the difference between a pass and a fail. In some colleges, a list of readings is provided to the class at the beginning of term, and students do a short 15-minute presentation on a selected reading. In a 12-week semester, 2 or 3 students could collaborate on a presentation and then provide a one-page summary for the class. This means that all readings would be covered by the end of the semester. At the heart of interactive teaching are good questioning techniques. Biggs and Tang (2007, pp. 120-121) outline the various questioning methods: convergent, divergent and high or low level questions. Convergent questioning has a correct answer in mind; the teacher can present the question and then get students to answer the question. This enhances the social construction of knowledge. Divergent questions are useful for probing student experiences but the teacher needs to be careful that the discussion does not ramble on. High level questions use verbs such as, hypothesising, theorising, or reflection. These questions may take a while to answer, so give students time to think through an answer. Don't be afraid of silence. Lower order questions require recalling factual information, so responses may be quicker. New tutors need to be prepared for tutorials and, ideally, should be on a first name basis with the students. Creating a positive classroom environment is important where students are not afraid to ask questions and students are respected as an equal partner in the learning process.

Online tutorial

Stavredes (2011, p. 36) argues that Gagne's (1985) nine events of learning easily transfer to the online environment. These are: gaining the learner's attention; informing them of the learning objectives (or outcomes); stimulating recall of prior learning; presenting stimulus in the form of content to the learner; providing guidance; eliciting performance through instructional activities; providing feedback; assessing performance; enhancing retention and transfer. Lessons are constructively aligned with learning outcomes and assignments (Lynch, 2008). Creating a friendly, non-threatening environment, where students are free to raise questions or issues is important (Kim and Bonk, 2006). Keeton (cited in Kim and Bonk, 2006) interviewed lecturers in higher

education and rated the effectiveness of online teaching strategies. Higher ratings were given to such issues as 'create an environment that supports and encourages inquiry', 'broaden the learner's experience of subject matter,' and 'elicit active and critical reflection by learners on their growing experience base' (p. 23). It is also important to foster positive relationships with students. Fitzmaurice and Coughlan (2007) discuss the importance of having positive and healthy relationships with students. Some teachers may judge or label learners as 'lazy' but Biggs and Tang's provide an analysis for lack of motivation.

> There is no such thing as an unmotivated student: all students not in a coma want to learn something. Our task is to maximise the chances that what they want to do is to achieve the learning outcomes. Unfortunately, there are many aspects of teaching that actually discourage them from doing that: we need to identify and minimize these as far as we can (Biggs and Tang, 2007, p. 31).

The most significant difference between an online tutorial and a face-to-face tutorial is that the tutor cannot judge body language or facial expressions. Software programmes designed for synchronous tutorials allow the student to use emoticons. That said, eliciting responses from students about their feelings may require a more sophisticated approach.

Lynch (2008) suggests that teachers should have a strategy for welcoming students; the first five minutes of the tutorial can be used for exchanging news. The tutor should also decide on how to greet latecomers. Tutors can also invite the student to be truly present in the tutorial by switching off emails and removing mobile phones and other distractions (Lynch, 2008). Students could be invited to send signs that they are following the discussion by using a happy face or other emoticons. The poll can be used to get agreement on a topic. Lynch suggests that tutors should make efforts to engage all the students in the discussion, especially quieter students. That said, tutors should exercise caution, as it is better to have shy students present and silent than not turn up at all. Tutors should also be aware of the tone of their voice, and smile. Checking to ensure that the audio system is working before the tutorial will alleviate concerns about whether the tutor can be heard and the use of a headset with a microphone is advised in order to keep hands free for typing notes. The tutor should have a list of participants and put a tick beside their name each time they contribute to the discussion. It is also important to use students' first names when speaking to them. To prevent the discussion from becoming chaotic, use turn taking and only switch on a student's microphone when they wish to speak (Lynch, 2008). At the conclusion of the tutorial, it is good practice to provide a summary of everything that was covered. Communicate with the students afterwards by e-mail and send slides, if they were used.

Workshops/laboratories/fieldwork

Some academic disciplines require students to attend workshops, laboratories or engage in fieldwork. These offer opportunities for active and deep learning, if the instructor carefully manages them. Higgs and McCarthy (2005) provide an example of a fieldwork trip for first year undergraduate students, in which student learning goals, teacher-learning goals, and learning outcomes were defined at the beginning of the trip, and where student dialogue and questioning was encouraged. Teachers provided an authoritative discourse; challenging tasks and students were encouraged to take responsibility and control of their own learning.

Collaborative or Team Teaching

Team teaching or collaborative teaching can have many benefits but also disadvantages related to power and control if not planned properly (Letterman and Dugan, 2004). Team teaching can be interdisciplinary (two or more faculty members team up to deliver a module or classes) or cross-disciplinary (teachers from different disciplines may collaborate). Either way, teachers will need to develop a common curriculum, integrate their respective perspectives, and agree on teaching activities (Davis 1995, cited in Letterman and Dugan, 2004). The benefits include gaining a wider range of perspectives and viewpoints and inherent benefits from the interaction between the teachers. Letterman and Dugan (2004) suggest that team teaching requires a far greater time commitment than individual teaching and that there is potential for conflict if not planned properly. They recommend that team teachers should become familiar with each other's teaching styles; this can be achieved by attending each other's classes, communicating regularly, and through meticulous preparation. The goals, objectives, or learning outcomes for the class or module should be clarified, with grade descriptors for assessments clearly defined. Deciding class management strategies are important, for example, turn taking strategies; one teacher could take responsibility for teaching part of the class, while the other teacher could act as an interjector, to raise particular issues. They suggest that teachers should take a unified stance and never disagree with each other in front of students; otherwise, students may take a 'divide and conquer' approach, pitting one teacher against the other (Letterman and Dugan, 2004). With careful planning and preparation, collaborative teaching can be very rewarding and exciting for teachers and students.

Flipped Classroom

The flipped classroom is another creative teaching methodology designed to promote active student learning. It was popularised by Sams and Bergman, in 2007, based on the

realisation that classroom time would be better spent guiding students' knowledge, rather than providing instruction. Typically, students complete work prior to the class. Nwachukwu (2015) provides a definition based on the acronym, FLIP: Flexible environment, Learning culture, Intentional content, and Professional education. Students carry out learning tasks prior to the class, based on asynchronous resources, such as video recordings, YouTube videos, and readings (this targets lower order learning skills in Bloom's taxonomy of remembering, understanding, and applying), the class room component consists of synchronous structured learning through collaboration with peers and the teacher (this targets higher order learning in Bloom's taxonomy, such as analysing, evaluating, and creating) (Nwachukwu, 2015).

Storytelling as a way of teaching

Storytelling is an ancient and powerful method of conveying a message to another; storytelling crosses cultures and communities (Alterio). It is also a pedagogy that can be used to enhance learning. The *Journal of College Science Teaching; September 2000, Vol. 30 Issue 1* was dedicated to articles extolling the benefits of storytelling in diverse subjects, such as mathematics, science, a case study of sinkholes, ethnic discrimination, ecology, air pollution, the statistics of divorce, a case study of the Galapagos Islands, and other subjects. According to McDrury and Alterio (2004), storytelling, as a pedagogy, is situated within a constructivist theoretical framework, in that it focuses on the way knowledge is created. For some (Green 1996; Fosnot 1996, cited in McDrury and Alterio 2004), the constructivist framework falls within the interpretive paradigm, where understanding and meaning are emphasised (McDrury and Alterio, 2004). Drawing from the published literature, Alterio suggests that we each embody creative learning capabilities, for when storytelling is used in a reflective and formalized way, significant learning is possible.

Digital Storytelling

In this digital age, technology can be combined with storytelling to create online digital stories. These are usually three to five minutes in duration; they are a combination of story, pictures, and background music, and are presented digitally. They have proved to be a very successful method of enhancing student learning. According to Ohler (2006), the story should precede the technology. He advocates using a storyboard, which is an ordered presentation of photos, which gives an overall sense of what the story is about. He suggests that if they are going to be used in education, they need to be part of the curriculum, should be used to enhance student's critical thinking, and should enhance their digital skills and literacy (Ohler, 2006). He provides an example:

> Superbugs. To demonstrate their understanding of superbugs (drug-resistant bacteria), two preservice teachers at the University of Alaska created a digital story called Bob's Battle, using primarily stills with voice-over narration. Bob tries to discover why he can't manage to shake an illness despite treatment from his doctor. It turns out that Bob did not complete his full course of antibiotics and has created a colony of superbugs resistant to his medication. The story is packed with scientific illustrations, diagrams, and data that support the narration. In the end, Bob admonishes the viewer: Don't mess around with antibiotics (Ohler 2006, p.46)

Quizzes as a way of learning

Quizzes also have a long history and have been proven to enhance learning. A survey of 562 educators revealed that most respondents believed that the use of online quizzes would be used for evaluation in the future (Kim and Bonk, 2006). Quizzes are useful for knowledge checks, revision, and can be used for peer teaching; for example, Gabuadan and Norton (2016) demonstrate how quizzes were used to enhance student's knowledge of English. Students were also asked to design peer-to-peer quizzes using *learningapps.org* or *quizlet.com;* this aided retention of subject matter and consolidated knowledge. As a result, students bridged the gap between theory and practice and became more effective at writing English (Gabuadan and Norton, 2016). Cook and Babon (2017) suggested that quizzes could help students develop higher order thinking and make the connection between knowledge and meaning. Their three year study was based on student evaluations of the role and value of online quizzes. The results showed a high level of student engagement with the quizzes; students were positive about the use of quizzes in evaluating prescribed readings. Quizzes were also shown to be time efficient (Cook and Babon, 2017). The role of play in enhancing learning is enshrined in Irish policies (*Aistear, Síolta*) for early childhood education (NCCA, 2009; Centre for Early Childhood Development and Education, 2006). There is no reason that the concept of play cannot be used for adult learners. Griffin (1993) argues that we would not play a guitar with one string; it is questionable whether only using the rational mind of the learner is the best way to enhance learning. Playing a guitar with six strings produces beautiful, melodic music, therefore, using other capabilities will greatly enhance student learning. These capabilities are: emotional, relational, physical, metaphorical or intuitive and spiritual. Play enriches and humanises these capabilities (Griffin, 1993). Quizzes are a type of play; I have used word search quizzes in a number of chapters in this handbook.

Conferences

Learning environments for students have been discussed in this chapter, but it is also important for teachers to stay up to date in their academic discipline. One way of doing this is through attendance at conferences. Conferences provide opportunities for the discussion and exchange of ideas and provide an opportunity to develop a learning community with peers/colleagues (disciplinary and interdisciplinary) and engage in dialogue with international and national communities/partners to enhance teaching. The NFETL (2016) describes conferences as a structured non-accredited organised activity, typically run by an institution, network, or disciplinary membership body, which are usually facilitated. Conferences are synonymous with higher education and typically have a keynote speaker and other presentations. They are food for the intellectual soul and should be promoted for students, staff, and faculty, not only for learning new knowledge, but also for networking with peers. It is an opportunity for teachers and students to showcase their work. Some conferences publish their proceedings and presentations. An article for a peer reviewed Journal can build on a conference presentation. International conferences can provide opportunities to engage in dialogue with international communities of teachers and learners.

Key messages

1. Academic writing is synonymous with third level education and new students need support and scaffolding in their first year. It is good practice to provide exemplar essays and referencing guidelines and that students are made aware of the penalties associated with plagiarism.
2. Students are partners in the learning process; therefore, transparent communication is essential. Formal communication, in terms of programme and module handbooks, clear assessment guidelines, reading lists, clear deadlines for submission of assessments, calendar for academic year stating dates of modules and assessments, should be in available.
3. The curriculum is at the heart of the student-learning journey and is the formal agenda of higher education. It denotes a carefully crafted learning journey for the student from commencement to completion of their designated programme. Programmes should be aligned with the institutional strategy and have explicit intended learning outcomes. Students and other stakeholders should be involved in their design and the programme should define the expected student workload in terms of credits.

4. Encourage active learning, whether it is in lectures, tutorials, or workshops and engage in creating innovative pedagogies, such as digital story telling.
5. Teachers need to keep up to date with developments in their academic discipline. One way of doing this is by attending conferences. Conferences provide opportunities for the discussion and exchange of ideas and provide occasions for networking and ways to develop a learning community with peers/colleagues and engage in discussions with international and national communities/partners to enhance teaching.

Toolkit 5

Activity 1

Explore the following academic writing websites and outline the key tenets of academic writing for the level on the NFQ that you are at: Walden University Writing Centre. http://academicguides.waldenu.edu/writingcenter/assignments

Open University - Academic Writing Style. https://www2.open.ac.uk/students/skillsforstudy/academic-writing-style.php

Activity 2

Plagiarism - explore the following website. http://www.digitalscholarship.ac.uk/referencing-and-avoiding-plagiarism.html

Activity 3

Examine the curriculum for the module you teach and see how it measures against the outcomes-based approach (TCD 2015, p.9).

Curricula Debates in Higher Education – an overview 2014/2015 (TCD, 2015). https://www.tcd.ie/CAPSL/assets/pdf/Curricula_Debates_in_Higher_Education.pdf.

Activity 4

Check out the Centre for Teaching Excellence at the University of Waterloo https://uwaterloo.ca/centre-for-teaching-excellence/teaching-resources/teaching-tips/lecturing-and-presenting/delivery/lecturing-effectively-university

Activity 5

View the video: Teaching strategies for declarative versus procedural knowledge http://study.com/academy/lesson/teaching-strategies-for-declarative-vs-procedural-knowledge.html

Activity 6

Key strategies for effective tutorials https://uwaterloo.ca/centre-for-teaching-excellence/teaching-resources/teaching-tips/planning-courses/tips-teaching-assistants/key-strategies-effective .

Activity 7

Visit the University of Birmingham STEM Education centre http://www.birmingham.ac.uk/university/colleges/eps/stem/index.aspx

Activity 8

Visit the University of Queensland Australia and find out how you can use the Flipped Classroom approach to enhance student learning. Answer the question: How can I flip the classroom? http://www.uq.edu.au/teach/flipped-classroom/what-is-fc.html

Activity 9

Answer the question: What is digital story telling?
https://www.youtube.com/watch?v=dKZiXR5qUlQ (Jerome Gratigny)

Activity 10

Visit Jason Ohler's website to discover how to create digital stories:
http://storyconcepts.blogspot.ie

Activity 11

Find 20 words synonymous with teaching and learning (solution in Appendix 2). Source: Word search quiz created
http://puzzlemaker.discoveryeducation.com/WordSearchSetupForm.asp

E	C	H	L	S	W	U	T	R	G	E	W	C	H	K
P	V	O	Q	A	O	R	E	E	V	S	L	F	S	N
O	N	I	N	W	I	E	I	I	A	A	A	L	U	O
H	S	A	T	F	P	R	T	T	S	M	V	I	O	W
S	M	H	W	A	E	A	O	S	I	G	B	P	N	L
K	U	D	C	V	R	R	R	T	Y	N	Z	P	O	E
R	R	F	J	A	S	O	E	P	U	I	G	E	R	D
O	O	Q	L	K	O	D	B	N	K	T	T	D	H	G
W	F	C	I	M	O	O	C	A	C	Z	O	D	C	E
Y	E	L	E	C	T	U	R	E	L	E	U	F	N	C
D	L	O	P	X	X	Q	A	C	H	L	S	X	Y	F
S	Y	N	C	H	R	O	N	O	U	S	O	O	S	P
A	U	R	E	N	I	L	N	O	E	J	F	C	A	B
C	F	S	Z	C	I	T	C	A	D	I	D	O	Q	L
G	I	C	S	D	N	H	A	U	B	H	L	O	V	Y

Activity 12

Answer the following questions in your reflective diary:

- How do you enact your professional values, such as: respect individuals and groups of diverse learners, promote participation of student learners, awareness , and promotion of, ethical values and behaviour, advancement and advocacy of discipline, sharing of resources, developing collegiality, commitment to reflective and evidence-based practice?
- Have you attended conferences in the past year? What conferences would you like to attend in the coming year? Are you on any committees related to your work?

Activity 13

Write reflective notes on what you have learnt from this chapter.

Activity 14

What evidence will you provide for your teaching portfolio?

Chapter 6 Pedagogies and Assessment

Introduction

The fourth domain of the *Professional Development Framework for all staff who teach in Higher Education* (2016) focuses on Professional Knowledge and Skills in Teaching and Learning. It addresses the teachers' knowledge and capacity to design and implement teaching, learning and assessment approaches which are student-centred and where students are seen as equal partners in their own learning. Students are expected to develop skills of enquiry and internalise specific attributes such as critical thinkers, entrepreneurs, global citizens, problem-solvers. It emphasises the importance of different approaches to teaching (disciplinary pedagogies) and behaviour management in the lecture theatre or tutorial.

In this chapter, theories of teaching and learning are explored. This is followed by a discussion of learning style preferences, student-centred approaches, learning outcomes, assessment, behaviour management, and graduate attributes.

Learning Outcomes

On completing this chapter and the exercises contained in it, the successful learner will be able to:

1. Critically engage with the scholarship of teaching and learning
2. Design student-centred teaching, learning and assessment approaches
3. Exercise competence in managing learning sessions from lectures to workshops and tutorials
4. Ensure that assessments are constructively aligned with module and programme learning outcomes

Theories of Teaching and Learning

To design and implement teaching and learning approaches, it is necessary to investigate the theories that underpin pedagogies and learning. The relationship between teaching and learning is still something of a mystery. Philosophers, psychologists, physiologists, educationalists, sociologists, and others have all contributed to understanding how people learn. Carlile and Jordan (2005, p. 11) suggest that there is n*o agreed theory of learning*, only a range of theories to choose from. Surgenor (2011) argues that there is no universal definition of learning or teaching, rather, there is a range of theories emanating from different psychological and epistemological traditions. The

philosopher, Hume (McDonnell, 2010), believed there was no causal relationship between teaching and learning. No matter how much one would like to believe that there is a causal link between what a teacher does and what a learner does, one will be hard-pressed to find, in reality, any discernible, or inherent, necessary connection between the activities of teaching and the activities of learning (McDonnell, 2010, p. 44). If teachers do not examine and reflect on their own beliefs and theories about teaching and learning, they risk emulating those who have gone before them and teaching in 'the way, it has always been done'. In this section, some of the dominant theories of learning will be explored.

Learning Theory

Pedagogy (science of teaching) is the term that is usually used to describe teaching, however, the etymological root is Greek (1575-1585) and means a child's tutor; strictly speaking, the term andragogy describes teaching to adults. Knowles (1980, cited in Bach, 2006, p. 49) uses the term andragogy and argued that *adults learn differently than children, in that adults tended to be motivated to learn what to learn and when to learn it.* Whilst some thinkers such as Plato put a priority on ideas over experience, other such as Locke (1690) (cited in Carlile and Jordan, 2005) claim that experiences preceded learning. Kolb (cited in Carlile and Jordan, 2005) posits a theory of active learning, conceptualised as a cycle of learning, which begins as a concrete experience, then a reflection on experience, and then abstract conceptualisation and the gaining of new ideas. This leads to a new stage, which eventually develops into the acquisition of new knowledge, understanding, and enhanced experience (Carlile and Jordan, 2005).

Behaviourism

Emanating from empiricism and experimental psychology, the field of teaching and learning has been influenced heavily by behaviourism (Carlile and Jordan, 2005). Behaviourism is based on the theory of 'conditioning' that asserts that you can condition or train any organism using a punishment or reward system. This was based on the pioneering work of Pavlov, a Russian physiologist, who discovered that dogs would salivate in response to a stimulus. Behaviourism informed curriculum design in the US and viewed the learner as passive, with a huge responsibility placed on the shoulders of teachers. Applying it to higher education, students are rewarded with high grades for complying with academic standards and punished if their assignment does not reach the standard, as set out in the learning outcomes. Carlile and Jordan (2005) suggest that behaviourism has positive outcomes, in that it uses effective teaching practices such as repetition, reinforcement, constantly seeking to stimulate learners, ensuring that lessons

are carefully planned with written objectives, and that learning outcomes are specified and achievable. Gagne's (cited in Carlile and Jordan, 2005) nine key instructional events are still considered an important part of training programmes. Anecdotally, behaviourist methods of learning and teaching are referred to as the 'mug and jug' method, whereby the teacher pours information into the brains of the student. Freire (1986) described this system as the banking system of education, where teachers lodge deposits. He believed that it dehumanises both teachers and learners and denies students' creativity and the ability to think critically (Freire, 1968). Freire (1968) believed that the structure of education should be transformed to enable students to become independent learners. Although behaviourist theory may inform teaching and assessment in higher-level institutions, its usefulness is questioned when considering originality, creativity, problem solving, and higher order thinking. Attempts to explain how the brain and memory works arose from the field of Cognitivism.

Cognitivism

Cognitivists posit the belief that knowledge is acquired and organised by the brain. The brain receives a stimulus (information), which is stored in the short-term memory. If this information is encoded, it can be stored in the long-term memory and is then accessed and retrieved through cues. The way in which knowledge is presented (e.g. through different mediums) facilitates learning and the way in which students organize this knowledge is important, such as through effective note taking, mind mapping etc. Piaget (cited in Carlile and Jordan, 2005) believed that children respond to experience and acquire knowledge through the natural development of their mental structures. Piaget's theory of de-centring explains how learners can move beyond subjective knowledge to higher order thinking and abstract concepts. The Critical thinking movement and neuro-linguistic processing (NLP) have built on Cognitivism and have posited ways to accelerate learning. Research has focused on the idea of multiple intelligences, learning styles, and learning preferences (Carlile and Jordan, 2005). Cognitivists also highlight attention theories, short and long term memory techniques, mental imagery, language acquisition, problem solving, and decision making (Ashworth *et al.*, 2004). Gardner (1993) identified eight learning styles or preferences that take account of individual differences. These are verbal-linguistic, logical-mathematical, visual perceptual, spatial intelligence, musical-rhythmic intelligence, bodily-kinaesthetic, interpersonal, and naturalist (Gardner, 1993). Others have added the concept of emotional intelligence (McPhillips, 2011).

Humanist Theories

Humanist theories emanated from the field of counselling psychology and reaffirmed the qualities of a person, rather than reducing them to a scientific object. The two main theorists were Abraham Maslow and Carl Rogers. Maslow's theory was based on a hierarchy of needs; lower order needs include having one's physiological needs met, the highest need is self-actualisation, which is the main goal of education, from a humanist view (Ashworth *et al.*, 2004).

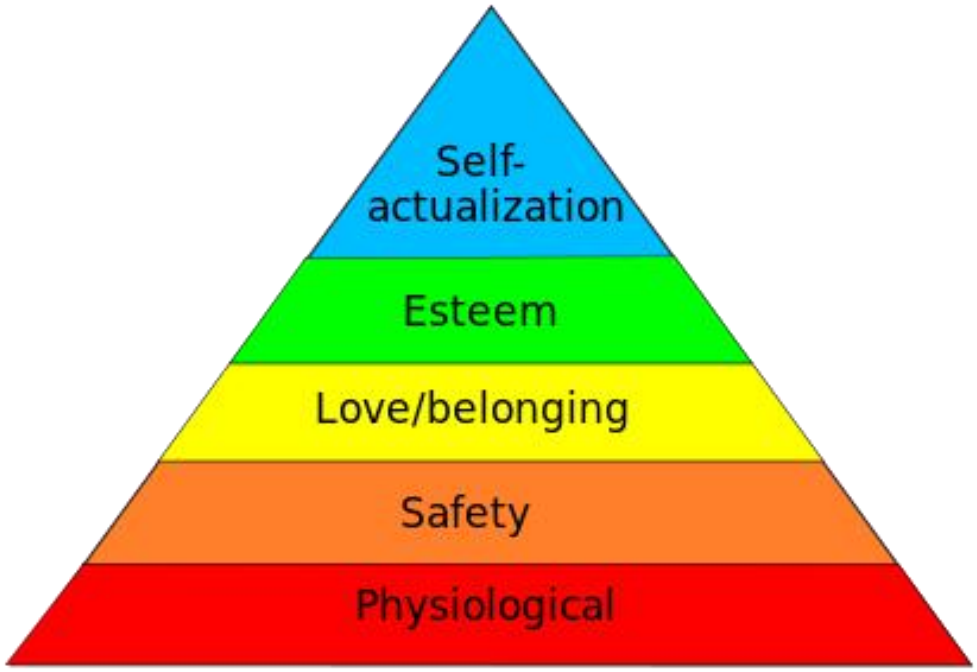

Figure 1. Maslow Hierarchy of Needs

Source: Based on Ashworth et al., 2004)

The second main humanist theorist is Carl Rogers, who believed that students could become self-directed learners with the teacher acting as facilitator to the student's learning. Humanism focuses on 'emotions, attitudes, values and interpersonal skills' (Ashworth *et al*., 2004, p. 5)

Constructivist Theories

For Cognitivists and Behaviourists, the teacher is still centre stage and has the responsibility for ensuring that the learner learns; constructivism, on the other hand, is a learner centred theory that believes that learners actively construct their own knowledge and meaning and build on prior experience and knowledge (Ashworth *et al*., 2004). Constructivism posits the view that the learner 'interacts with the experience and environment in the construction of knowledge' (Ashworth *et al*., 2004 p. 8). Vgotsky believed that learning takes place in a social environment and precedes development

(Horton, 2008). Learning is a social rather than private individual activity and language is the primary intellectual learning tool. Learning takes place in the zone of proximal development, the area just outside or beyond what the learner can learn on her own. With guided participation and being scaffolded or supported by a teacher, the student can enter the higher zone of learning.

Horton argues that teachers already use Vygotsky's methods in first and second level education in that they encourage children to work in groups and to have a study buddy. They use 'modelling' behaviour by reading aloud to children and encourage older children to teach younger children. Horton (2008) poses the question, why are these methods not used in higher-level institutions? Perhaps, it is because third level institutions are hierarchical (Marais, 2010). Historically, the teaching method in third level education was the didactic lecture. This traditional teaching method was knowledge-based, grounded on the idea that lecturers would cover a body of knowledge declared in books or articles (Clancy, 2015). Typically, the lecturer (the sage on the stage) dispatches information and the student receives knowledge; there is now a shift to a more active constructivist approach, where the nature of knowledge has been redefined as something which is actively constructed by the learner through his or her own learning activities (Clancy, 2015). Proponents of constructivism emphasise that learning is based on the wish of the learner to find meaning (Carlile and Jordan, 2005). Learning takes place in the interaction between the learner, the teacher, the course material, and the learning environment. Tuncel and Bahtiyar (2015) suggest that a constructivist approach combines elements of 'active learning', 'reflective learning', 'associations with life', and 'assessment simultaneous with teaching'. The active learning environment included attendance at lessons, student interaction, making their own learning decisions, sharing ideas, and group work. Reflective learning was reflected in keeping a diary, doing research, and questioning ideas. 'Associating with life' reflected the application of theoretical ideas to real life practices (Tuncel and Bahtiyar, 2015).

Ashworth et al. (2004, p.2) produced a matrix which summarises the main learning theories and their proponents. For a full and more detailed discussion, please see *A Handbook for Teaching and Learning in Higher Education* (Fry *et al*., 2009).

Table 6. Learning Theories and their proponents

Aspect	Behaviourist	Cognitivist	Humanist	Social learning	Constructivist
Learning theorists	***Guthrie, Hull, Pavlov, Skinner, Thorndike, Tolman, Watson***	***Ausubel, Bruner, Gagne, Koffka, Kohler, Lewin, (Piaget)***	***Maslow, Rogers***	***Bandura, Rotter, Engestrom, Eraut, Lave and Wenger, Salomon, (Vygotsky) (Piaget) (Boud)***	***Candy, Dewey, Piaget, Rogoff, vonGlaserfeld, Vygotsky, Boud, Illeris***
View of the learning process	Change in behaviour	Internal mental processes (including insight, information processing, memory, perception)	A personal act to fulfil potential	Interaction with, and observation of, others in a social context, Situated learning, communities of practice, distributed cognition,	Construction of meaning from experience
Locus of learning	Stimuli in external environment	Internal cognitive structuring	Affective and cognitive needs	Interaction of persons, behaviour, and environment	Internal construction of reality by individual
Purpose of education	Produce behavioural change in desired direction	Develop capacity and skills to learn better	Become self-actualised, autonomous	Model new roles and behaviour	Construct knowledge

Learning style preferences

The main theories of teaching and learning are explored above; here, we will examine learning style preferences. Peter Honey and Alan Mumford designed an 80-item learning styles questionnaire (2007), entitled *The Trainer Styles Questionnaire*, which suggests that people have different learning style preferences: - Activist, Reflector, Theorist, and Pragmatist, which draw from the main theories about how people learn: Behaviourism, cognitivism, humanism, constructivism, and social/ learning as imitation, or modelling (Honey and Mumford, 2007). Whatever approach to teaching we take, it should be student centred.

Developing a Student Centred Approach

Biggs and Tang (2011, pp. 17-20) provide an explanation based on three levels, and recommends following a learning theory based on a Level 3 Focus. What the student

does – this is a student centred model of teaching, where the purpose of teaching is to support the learner to achieve the intended outcomes. It requires the teacher to be clear about:

- What it is the students are to learn and what are the intended or desirable outcomes of their learning;
- What it means for students to 'understand' content, in the way that is stipulated in the intended learning outcomes;
- What kind of teaching/learning activities are required to achieve these stipulated levels of understanding

Writing Learning Outcomes

In the past, college lecturers were simply experts in a given area and had a deep knowledge of the type of information that they believed that students needed. From this, they framed their lessons, in terms of aims and objectives, in an approach that can be described as teacher centred. This has all changed; an important output of the Bologna process was 'action lines' or the fact that all programmes and modules were to have clearly stated learning outcomes, with a shift to a student centred approach. *'Learning outcomes are used to express what learners are expected to achieve and how they are expected to demonstrate that achievement'* (Kennedy et al. 2006, p. 1). Learning outcomes are based on Bloom's three domains of learning: cognitive, affective, and psychomotor (Bloom *et al.*, 1956). Cognitive refers to intellectual functions such as: thinking, knowledge, remembering, and recalling. In a deeper analysis of the cognitive domain or thinking processes, Bloom et al., (1956) suggested that there was a hierarchy or a ladder of six successive levels: 1) Knowledge, 2) Comprehension 3) Application, 4) Analysis, 5) Synthesis, and 6) Evaluation. He believed that student's learning should ascend this ladder of learning and that teachers should facilitate students to move up into the higher orders of synthesis and evaluation (Bloom *et al.*,1956; Kennedy *et al*., 2006). In writing learning outcomes, teachers can use active verbs as specified in Bloom's taxonomy; for example, in terms of assessing knowledge, action verbs may be used as summarised in the following table.

Table 7. List of verbs used in writing Cognitive Domain Learning Outcomes

Cognitive Domain	Learning outcome (active verbs)
Knowledge – knowing and understanding the material	Define, describe, identify
Comprehension – understanding and interpreting information	Associate, classify, explain, defend, discuss

Cognitive Domain	Learning outcome (active verbs)
Application – ability to apply concepts	Demonstrate, apply, relate, select
Analysis – ability to break down information into its component parts	Analyse, compare, contrast, debate
Synthesis – ability to put ideas together	Argue, establish, generalise, plan, rearrange
Evaluation – the ability to judge the value of ideas, theories or materials	Assess, evaluate, critique, interpret, rate,

Source: (Kennedy et al., 2006).

The affective domain refers to changes in values, interest and attitudes, and the development of appreciation of a subject. On a deeper level, it relates to issues relative to the affective or emotional component of learning and to the willingness of a student to receive information and to integrate ideas, attitudes, and beliefs. Within the affective domain, Bloom et al. (1956) developed five major categories: 1) Receiving, 2) Responding, 3) Valuing, 4) Organisation, and 5) Characterisation. Active verbs which assess this domain include: Appreciate, value, resolve and participate (Kennedy *et al*., 2006). The psychomotor domain refers to the area of motor-skills and the co-ordination of the brain and muscles; it is probably the least developed domain. That said, there is scope in all courses for lecturers to act as role models for the student in terms of how they conduct themselves in class and being prepared for class. Dave (1970, cited in Kennedy *et al*., 2006) suggested five levels: imitation (student copying behaviour), manipulation (manipulating materials or practicing skills), precision (carrying out tasks without making errors), articulation (multi-tasking or co-ordinating actions), and naturalisation (performing naturally without thinking).

Assessment

The *Assessment and Standards*, *Revised 2013* (QQI, 2013) states that the most important function of higher level institutions is the assessment of learners. The assessment of learning measures the achievements of learners, and by extension, the effectiveness of programmes. In the introduction, it states that assessment for learning is at the core of reflective teaching and learning and continual quality enhancement. Assessment involves determining the extent to which the learning outcomes have been achieved. Modules may be assessed through essays, case studies, exams, projects, multiple-choice tests etc. In order to create transparency, teachers have to ensure that there is alignment between their learning outcomes, their teaching strategies, assessment criteria, and assessment techniques. If there is lack of clarity, it could result in poor outcomes for students in terms of learning and assessment. Assessment is the

curriculum or ‘the tail that wags the dog’ (Kennedy, *et al*., 2006) and can be used in a very constructive way. Quite often, students who are commencing a course want to find out how it is assessed and how they can do well in the course. Typically, assessment consists of formative and summative assessment; the formative element is described as assessment for learning and takes place within the module, with the teacher giving clear, rich feedback to the learner, whereas summative assessment is typically done at the end of a module and is the sum total of what the student has learned and which measures their achievement or attainment.

In designing a module, the teaching, learning and assessment are closely aligned with the learning outcomes; this is referred to as constructive alignment and is designed to give support to the learner. The learning outcomes refer to the minimum standards a student needs to achieve to pass the module (Kennedy *et al*., 2006). Beyond this, students are given grades to reflect the standard of their work and to what extent they have surpassed the learning outcomes. It is important to have a clear marking scheme or grading criteria, giving students’ feedback to provide clear explanations as to how they achieved the allocated grade. There are many benefits to designing good programme and module learning outcomes. They help to ensure that programmes and modules are consistent, they improve quality assurance, and, most importantly, they enhance student learning and assessment. Students should not be over assessed, and assessments should be aligned with the ECTS of the module.

Students are at the heart of assessment. As such, student centred learning suggests that students should have some input into assessment or some level of choice or control over assessments. Drawing from the work of Brown *et al*., (1994), O’Neill and McMahon (2005, p. 32) provide examples of student-centred assessments (see table below).

Table 8. Student-centred Assessment

Involving students at the stage when the task is set:	Choosing the assessment task Setting the assessment task Discussion of the assessment criteria Setting the assessment criteria
Involving students at the stage after the task is completed	Making self-assessment comments Making peer-assessment feedback comments Suggesting self-assessment grades/marks Assigning self-assessment grades/marks Assigning peer-assessment grades/marks

Source: (O'Neill and McMahon, 2005)

One of the recent enhancement themes of the NFETL is assessment. They differentiate between assessment of, for, and as learning.

- 'Assessment OF Learning: completing assessment to demonstrate learning
- Assessment FOR Learning: using assessment to give feedback on teaching and student learning
- Assessment AS Learning: student empowerment and engagement to become a better learner.' http://www.teachingandlearning.ie/priority-themes/enhancement-theme-2016-2018/,

Geraldine O'Neill will be publishing a full report on assessment this year (2017). Please watch out for this publication on the website of the NFETL.

Problem Based Learning

Problem based learning emerged from medical education in the USA (Barrett, 2005; Savery, 2006) in response to an explosion in medical information and the heavy learning load of science lectures and clinics for students.

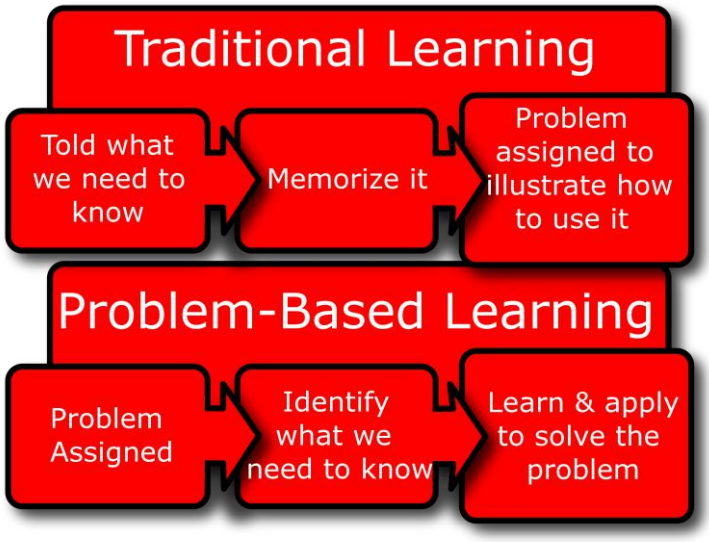

Figure 2. Traditional and Problem based learning

Source::http://www.siue.edu/facultycenter/services_resources/teaching/faculty_resources/pbl.shtml

Problem based learning is defined as a: 'learner-centered approach that facilitates research, the integration of theory into practice, and the application of course content to discover and provide suggestions for solutions to a specific defined problem' (Savery, 2006). It differs from traditional teaching, in that the student is first confronted with a

messy, real life authentic problem, for which the student provides a solution, before consulting the literature in the area (Barrett, 2005). Barrett (2005, p. 56) provides an operational definition based on his experience as a PBL curriculum designer, programme leader, tutor, education developer, consultant, and researcher.

- In the first instance, students are presented with a real life authentic problem
- In a small group tutorial, students discuss the problem, clarify the facts, and define the problem. Based on prior knowledge, they brainstorm and identify what they don't know and what they need to learn to tackle the problem. They develop an action plan.
- After the tutorial, the students do their research in the library, both electronically and through consulting others.
- In the next tutorial, they share information, engage in peer teaching, and collaborate on the problem.
- They discuss and present their solution
- The students participate in self, peer, and tutor review of the problem and each person's contribution.

According to Savery (2006), in order for PBL to be successful the teacher must support the process and help to clarify issues and must conduct a 'thorough debriefing at the conclusion of the learning experiences' (2006, p.12). A team of lecturers and students who had embraced problem based learning, wrote a poem that captures the philosophy of the method and the transition from traditional methods to PBL. Only a few verses of the poem are reproduced here, (Barrett, 2005, p. 63).

I used to believe … and then I learned some more
I used to believe
That I was the lead, and what the students need was to follow
And then I learned some more.
I used to believe
That my teaching style gave cause to smile
And I enjoyed my delivery style
And then I learned some more
I used to believe that students learned according to my notes
Would give me cause to gloat
And then I learned some more.
I used to believe

That I'd be beholden
To the curriculum of olden
And then I learned some more

Having considered methods of teaching, learning, and assessment, we will now examine behaviour management in lecture theatres and classrooms.

Behaviour Management in lecture theatres and classrooms

I must confess that when I started tutoring, I was terrified of my students. However, the more experienced I became, the better I was at managing my teaching, my students' learning, and behavioural issues in the classroom. It is very difficult for students to go from post-primary school, where classes are under 50 students, to an educational environment of lecture theatres, which can hold up to 500 students and where they are expected to stay quiet for one hour or more. I have heard stories of paper airplanes being thrown at lecturers; the higher the stack of airplanes, the weaker the lecturer is at engaging the students. Students sometimes cannot take the impersonality of the large lecture theatre (Biggs and Tang, 2007, p. 125). We cannot expect all lecturers to be wonderful performers or actors or be so engaging that they would be able to do a Ted Talk! That said, there are things that a lecturer can do to improve engagement with learners. Today, lecturers have to compete with mobile phones, while the lecturer is teaching; this raises the question, how can we engage our learners? Biggs and Tang (2007) suggest that we should be aware of the climate we're producing in our classroom. 'We should create the sort of learning climate that we believe strikes the right balance for optimal learning, given our conditions, our subject and our own students … it is a question of balancing trust, risk and value' (p. 38). They suggest that providing students with too much information is very detrimental to learning.

> The biggest point I have learned from this course is my biggest flaw as a teacher, that is, I did not trust my students to be able to behave themselves . . . (or to be) . . . capable of being responsible for their own learning . . . I made numerous rules in class for them to follow so as to make sure that they 'behaved', did all the preparations and planning for them, giving them mountains of homework and short tests to make sure that they revise for their lessons and so on – all rooted from my lack of trust in them! And I dared to blame them for being so passive and dependent when all along I helped to encourage them to be so! (part-time BEd student, University of Hong Kong)

Biggs and Tang (2011, p.153) suggest that it is shameful that young or inexperienced tutors are expected to teach large groups of first year students. They argue that meticulous preparation needs to go into planning a lecture for a large group of students. They suggest that procedural rules need to be set out at the outset:

- switch off mobile phones,
- have signals for silence,
- have procedures for asking questions (I will stop after the first half hour for questions),
- don't sail in and start talking, ensure that you have a proper introduction,
- provide a slide with the outcomes for the learning session,
- maintain eye-to-eye contact with students,
- ensure clarity by projecting the voice,
- focus on the students in the back row
- have a hand out of slides where students can write notes or questions on the side,
- consider putting lessons on Moodle.
- When a student asks a question, repeat it, to ensure that the whole class can hear and are included.
- Consider standing in front of the lectern, or walk around.

It is not unusual for an inexperienced lecturer to get stage fright in front of a large audience of students, as described in the following text box (Biggs and Tang, 2011, p. 153).

Don't struggle with stage fright! By Brendan O'Keefe

It happens to the best of them. As lecture time approaches, on come the cold sweats and the nerves as confidence departs.

An underperforming student, scared of being found out? No. An experienced lecturer, who has been in the limelight for years, with stage fright? Yes.

One who knows plenty about it – and who wants to know more – is University of Canberra marketing communication lecturer, Amanda Burrell.

Ms Burrell has a degree in creative arts (acting) from the University of Wollongong and was a professional performer for a decade before turning to lecturing about 10 years ago.

Returning to the lectern this year for the first time in 15 months after having a baby, Ms Burrell found herself in dread of fronting a class . . . A straw poll of colleagues revealed

that many felt the same way. ‘People told me stories about losing confidence, how they lost their voice in a presentation, how they fainted or got so muddled they couldn’t read their notes,’ Ms Burrell said. ‘I thought: “There’s something worth looking at here”.’

Ms Burrell believes stage fright among lecturers is a widespread but little talked about problem. She has set herself the task, as a research project, to find out how many suffer and how they cope. She even rigged up a colleague with a heart-rate monitor to check stress levels. The woman, whose resting heart rate was 80 beats per minute, was described by a third-party observer to be ‘as cool as a cucumber’ during a presentation. But her heart rate had peaked at 175bpm.

Ms Burrell said she wanted universities to include public speaking as part of their training for new lecturers. Ms Burrell has plans to visit acting schools. ‘I’d like to see how the training of professional actors can inform our practice,’ she said. Source: The Australian Higher Education, 19 April 2006

Biggs and Tang (2011) suggest that a public speaking course would be beneficial for new lecturers. This is exactly what I did. I attended a public speaking course in a local Further Education college and then went to Toastmasters for a number of years to practice speaking in public. It increased my confidence and has certainly benefitted, not only my students, but myself. Following on from this discussion of behaviour management, we will now turn our attention to graduate attributes.

Graduate Attributes

What attributes would we like our graduates to have internalised by the time they have finished a programme? Biggs and Tang (2007) suggest that, in designing programme learning outcomes, we should also consider how they fit with graduate attributes; for example, we would wish that a doctor, nurse or physiotherapist would have a good bedside manner and were able to communicate with patients, we might wish that a veterinarian or a veterinary nurse would be passionate about the wellbeing of animals etc. Biggs and Tang (2007) argue that programme learning outcomes should not be forced to match attributes that are not relevant to the programme. Different professions or academic disciplines may place an emphasis on different attributes. The NFETL suggests that graduate attributes could include attributes such as critical thinkers, entrepreneurs, global citizens, problem-solvers etc. Biggs and Tang (2007, p.69) provide suggestions for attributes of accountants.

Table 9. Graduate Attributes & Programme Learning Outcomes

Graduate Attribute	Programme Intended Learning Outcome
Competent professional practice	Apply principles to real-life accounting situations
Communicate effectively Teamwork	Communicate as a professional with clients and colleagues in real-life accounting situations
Ethical professional	Operate effectively and ethically as a team member in real life accounting situation

Key Messages

- The relationship between teaching and learning is still something of a mystery; philosophers, sociologists, psychologists, and educationalist have all made contributions to theory in an effort to explain how we learn. Although the term pedagogy is used, strictly speaking, this refers to the knowledge underpinning the teaching of children; the term andragogy refers to adult learning but is used less. There are many theories of learning Kolb posits a theory of active learning, behaviourists believe in operant conditioning, cognitivists believe that knowledge is acquired and organised by the brain and ideally will be encoded and stored in the long term memory. Constructivists believe that learners actively construct their own knowledge that builds on prior experience and knowledge. Biggs and Tang (2011) posit a student centred learning theory to support the student to attain the learning outcomes of the module. In addition, learning style preferences need to be taken into account. Honey and Mumford (2007) suggest that people have different learning style preferences: activist, reflector, theorist, and pragmatist. They have developed a learning style questionnaire that learners can take to see what their preferred learning style is.
- Learning outcomes are now at the centre of lesson design and are based on Bloom's three domains: cognitive, affective, and psychomotor. In writing learning outcomes, teachers can use active verbs, as specified in Bloom's taxonomy. In designing a module, teaching, learning, and assessment are closely aligned; this is referred to as constructive alignment.
- The most important function of higher education is the assessment of learners. Assessments measure student achievement and also the effectiveness of programmes. Assessment may be at a formative or summative level. One of the recent themes of the NFETLhas been the assessment of, for, and as learning. Student centred learning suggests that students should have some input into assessment and some level of choice or control over assessment.

- The democratisation of education means that student numbers may be very large and it may be difficult for a teacher to maintain control in a lecture theatre. Biggs and Tang provide advice about procedural rules on managing behavioural issues in the classroom.
- It is not enough for students simply to attain knowledge of a subject, it is also important that they internalise the type of attributes required for the career or profession that they will be pursuing; for example, we would not want a teacher to be impatient, or a nurse to have poor communication skills. The NFETL suggests that graduate attributes might include critical thinking, global citizens, entrepreneurs, or problem-solvers. Programme learning outcomes should be congruent with the type of attributes associated with graduates of that programme.

Toolkit 6

Activity 1

Benjamin Bloom created a taxonomy based on six major categories: Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation. Explore the following website in Vanderbilt University and see how Bloom's taxonomy has been revised using action words. What are the action words under each of Bloom's categories?
https://cft.vanderbilt.edu/guides-sub-pages/blooms-taxonomy/

Activity 2

Read the booklet, Teaching Toolkit How Students Learn 1 (Surgenor, 2010) Available at http://www.ucd.ie/t4cms/UCDTLT0016.pdf

Activity 3

Examine the website: http://www.learning-theories.com/ - It provides a good overview of learning theory approaches

Activity 4

Read the article by Carlile and Jordan and compare and contrast the main theories of learning

http://www.aishe.org/readings/2005-1/carlile-jordan-IT_WORKS_IN_PRACTICE_BUT_WILL_IT_WORK_IN_THEORY.html

Activity 5

Complete the following tasks, outlined by Biggs & Tang (2011, p.30).

Theories of Teaching and Learning

What are your theories of teaching and learning?

- Learning is
- Teaching is

When you have finished this chapter, come back to these statements and see how they check out against the transmission and student learning models, and the theories of teaching outlined in the chapter. Where do your own views lie? Now that you have seen these other views, have you changed your theory of teaching?

Comments

- Does your teaching encourage surface or deep approaches to learning?

- Good teaching *encourages* a deep approach, and *discourages* a surface approach, to learning.
- Reflect on your teaching so far, identify aspects of your teaching that have (maybe unintentionally)
- **a** encouraged a surface approach to learning:
- **b** encouraged a deep approach to learning:

What future actions would you take to encourage a deep approach to learning in your students?

Activity 6

Watch YouTube video: Writing Learning Outcomes and Objectives – full presentation https://www.youtube.com/watch?v=82Ph6r7Gobk

Dr. Ann Austin (2013) Part of the 2013 MSU Preparing Future Faculty to Assess Student Learning. Now examine the learning outcomes of your module and assess whether they need to be changed.

More about writing learning outcomes: Writing Learning Outcomes A Guide for Academics 2014/2015
https://www.tcd.ie/CAPSL/assets/pdf/Curricula_Debates_in_Higher_Education.pdf

Activity 7

Explore O'Neill, G (Ed) (2011) *A Practitioner's Guide to Choice of Assessment Methods within a Module*, Dublin: UCD Teaching and Learning.
http://www.ucd.ie/t4cms/Practitioners%20Guide.pdf

Activity 8

Please read: ENHANCEMENT THEME: Assessment OF, FOR and AS Learning: Continuing the Debate and Creating a Focus (August 2016) and also the new publication due in 2017 http://www.teachingandlearning.ie/wp-content/uploads/2016/08/Insight-Assessment-OFFOR-and-AS-Learning.pdf

Activity 9

How do you assess students?

Activity 10

What is problem-based learning? View the following website:
https://www.tcd.ie/CAPSL/TIC/guidelines/teaching/pbl.php

Activity 11

Read the following article by John Savery (2006) 'Overview of Problem-based Learning: Definitions and Distinctions'
https://docs.lib.purdue.edu/cgi/viewcontent.cgi?article=1002&context=ijpbl

Activity 12

Read John Roswell's summary of Honey and Mumford's learning style
http://www.open.edu/openlearnworks/pluginfile.php/69355/mod_page/content/1/learning_styles.pdf

Activity 13

Visit Peter Honey's official website: https://www.talentlens.co.uk/develop/peter-honey-learning-style-series

Activity 14

Explore the University of Leicester website and read more about Honey and Mumford
http://www2.le.ac.uk/departments/gradschool/training/eresources/teaching/theories/honey-mumford

Activity 16

What attributes would you like your students to have acquired by the time they have graduated from your programme? Biggs and Tang (2007, p.86) provide a useful table for reflecting on attributes. Create a table and on the left side write out the intended learning outcomes of the programme that you teach on; on the right hand side list the attributes that you would wish your students to have acquired.

Programme Learning Outcomes	Graduate Attributes

Activity 17

Reflect on the learning you have achieved in this chapter.

Activity 18

What evidence will you provide for your teaching portfolio?

Chapter 7 Technology Enhanced Teaching and Learning

Introduction

All aspects of academic and administrative practices are increasingly underpinned by digital technology. The use of technology is of national strategic importance, as reflected in national policy. The fifth domain of the *Professional Development Framework for all staff who teach in Higher Education* (2016) focuses on 'Professional and Personal Digital Capacity in Teaching and Learning'. It emphasises the importance of developing personal digital capacity. It highlights levels of confidence, and the application of skills and knowledge to enhance professional practice, in order to empower staff and students to flourish in the digital age. It encourages teachers to increase digital capacity by developing skills, attributes and attitudes and using an evidence-based approach to the application of technology to teaching, learning and scholarship. The *All Aboard* project (2015, p. 18) defines digital skills, literacies, and competences as: 'the capabilities which fit someone for living, learning and working in a digital society, with the knowledge that a digital society is ever evolving'.

This chapter commences with a broad discussion of the internet and world wide web and their implications, this is followed by a discussion of the current generation of students who are digital natives. Using and evaluating technological tools is then explored. Drawing on recent policy documents, the broad technological eduscape in Ireland is then explored along with online resources for teaching and learning. The current eduscape incorporates virtual learning environments and massive open online courses. The chapter concludes with a discussion of internet security and dark net issues.

Learning Outcomes

1. Develop critical awareness of the broad technological landscape in terms of the higher education environment;
2. Enhance scholarship in teaching, learning and communication through the integration of digital tools and resources;
3. Create awareness of the issues relating to identity, data protection, privacy, appropriate behaviour and the ethics of online learning, and how such issues relate to personal wellbeing and the nurturing of effective digital citizenship.

The Internet and World Wide Web

The most significant change to education in the twenty first century is the advent of the personal computer, the Internet, and now the smart phone (mobile internet). The internet

was born on the 29th October 1969 in the University of California; little did the academics there realise when they transmitted a message to the University of Stanford the impact their actions would have on the whole world (Herzog, 2016). In 1995, only 1% of the world population had access to the Internet; by 2015, this had increased to 40%. In 2005, it was estimated that 1 billion people globally had access to the internet (Internet Society, 2014); in 2016, it was estimated that 3.5 billion people have access (Worldometers and 7 Billion World, 2016). The smart phone was launched in 2007 and we are now experiencing the mobile internet, which is forecast to rise to 71% of global population use by 2019 (Brown, 2015). The growth of the Internet and the mobile Internet has far-reaching opportunities and challenges for education. According to Bill Gates:

> We always overestimate the change that will occur in the next two years and underestimate the change that will occur in the next ten. Don't let yourself be lulled into inaction (cited in Brown, 2015, p. 9).

Implications of growth of internet

The growth of the Internet has facilitated the delivery of online, global education programmes, with social interaction now taking place in a global context (Alexander, Schallert and Reynolds, 2009). We are in the throes of a technological revolution, whose full effects are still unknown. Due to the birth of the internet and the world wide web, communities *of shared practice* have shifted beyond the walls of the universities, beyond the boundaries of the nation state, and are now global (Elwood and Klenowski, 2002). These offer unlimited opportunities for both learners and teachers. In Kuhn's (2012) terms, this represents a paradigmatic shift; knowledge depends, not on a strict scientific method, but rather on the historical period and culture in which the knowledge is created and produced (Kuhn, 2012). Hallissy et al. (2013, p.53) argue, to make the quantum leap to a new paradigm in our education systems, the combined effort and vision of many is needed (Hallissy *et al.*, 2013). According to Marais (2010, p. 174):

> Technology can no longer be seen as part of education, it should be regarded as a transformational force that changes the approaches and theories applied to facilitate teaching and learning in higher education.

Although traditional campus-based universities will continue to exist, the growth of online learning is a significant change that will push *the evolution of higher education towards a different future* (Bach *et al*., 2007). The demand for mass education, globalisation, the availability of online and blending learning programmes, and the rise of the mobile Internet is changing the eduscape of higher education. Teachers need to be equipped

with the skills to meet these demands. In the words of Prof. Welsh, of Clemson University:

> …the new generation of learners coming into my classroom was different than what I had experienced. They had laptops, they used cell phones, they grew up with the Internet and they thought differently. I needed to adapt to their style because what was working 5, 10, 20 years ago was not the case today (cited in Nwachukwu 2015).

Net generation and digital natives

Tapscott (1998; 2009) coined the term 'net generation' to describe those born between 1977 and 1997 (Tapscott, 1998). Computers and technology are to them what televisions and fridges were to their parents (the baby boomer generation). Tapscott argues that the system of education we have today was designed for the industrial age (focused on manufacturing and mass production) and is no longer relevant to the net generation (Tapscott, 2009). He argues that the net generation have eight norms: 1) freedom, 2) customization, 3) scrutiny, 4) integrity, 5) collaboration, 6) entertainment, 7) speed, and 8) innovation (Tapscott, 2009, p. 74). To address these norms, he provides seven tips for educators:

1. 'Don't throw technology into the classroom and hope for good things. Focus on the change in pedagogy, not the technology. Learning 2.0 is about dramatically changing the relationship between a teacher and students in the learning process. Get that right and use technology for a student-focused, customized, collaborative learning environment.
2. Cut back on lecturing. You don't have all the answers. Besides, broadcast learning doesn't work for this generation. Start asking students questions and listen to their answers. Listen to the *questions* students ask, too. Let them discover the answer. Let them co-create a learning experience with you.
3. Empower students to collaborate. Encourage them to work with each other and show them how to access the world of subject- experts available on the Web.
4. Focus on lifelong learning, not teaching to the test. It's not what they know when they graduate that counts; it's their capacity and love for lifelong learning that's important. Don't worry if the kids forget the dates of key battles in history. They can look them up. Focus on teaching them how to learn—not what to know.
5. Use technology to get to know each student and build self-paced, customized learning programs for them.

6. Design educational programs according to the eight norms. There should be choice, customization, transparency, integrity, collaboration, fun, speed, and innovation in their learning experiences. Leverage the strengths of Net Gen culture and behaviours in project-based learning.
7. Reinvent yourself as a teacher, professor, or educator. You too can say, “Now, I can hardly wait to get up in the morning to go to work!”’ (Tapscott 2009 p.148)

Tapscott (2009) argues that many students leave school or college early due to boredom and lack of engagement and recommends that educators need to go from a one-size fit all approach to a one-size fit one approach where the learning styles and needs of the net generation are met. The net generation are also ‘digital natives’; a term developed by Prensky to describe children who were born in the 1980s who have grown up in a world where technology is taken for granted (Prensky, 2011). Teachers may be digital migrants and may struggle with technology. Regardless, it is important that technology is integrated into teaching and is not simply an add-on. Koehler and Mishra developed a framework for integrating technology into teaching, called the TPACK framework, an acronym for technology, pedagogy and content knowledge (Koehler and Mishra, 2009). This framework built on the work of Shulman’s (1986, cited in Koehler et al 2014, p. 102) concept of pedagogical content knowledge (PCK refers to how teachers interpret knowledge and present it to their learners) and describes the complex interaction of three bodies of knowledge: content, pedagogy, and technology (Koehler *et al.*, 2014). Twenty first century teachers will seamlessly integrate content, pedagogy and technology into their everyday teaching practices (Mishra and Koehler, 2006).

According to Koehler et al (2014, p.102), there are three dimensions to the TPACK framework:

1. Content knowledge (CK) denotes the teacher’s knowledge of the subject matter.
2. Pedagogical knowledge (PK) denotes the teacher’s knowledge of the scholarship of teaching, teaching methodologies and strategies to enhance student learning.
3. Technological knowledge (TK) denotes teacher’s knowledge about technology and how it can be effectively used to deliver the curriculum. These three dimensions have a further four components (p.102):

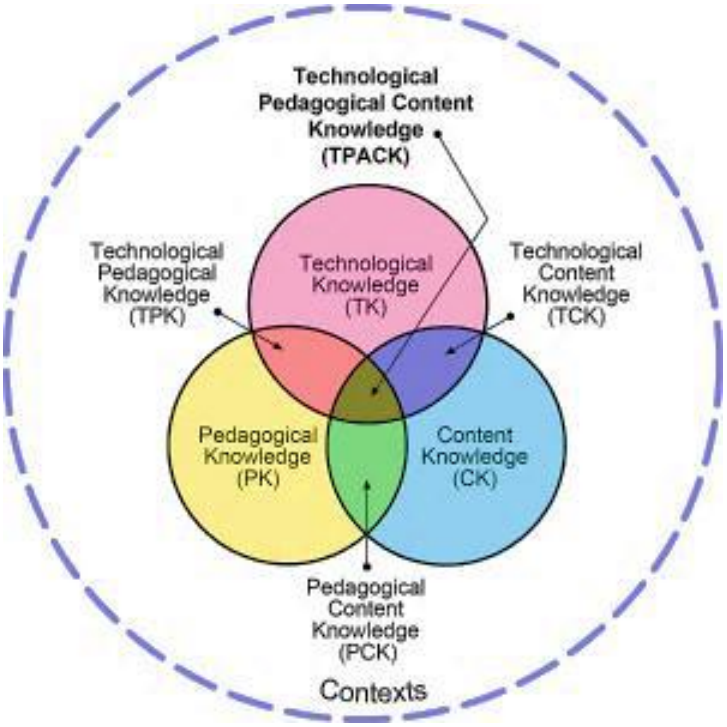

Figure 3. TPACK

Source: http://www.punyamishra.com/research/tpack/

Table 10. TPACK Framework

TPACK Framework	
Technological Content Knowledge (TCK)	This refers to the knowledge of the reciprocal relationship between technology and content. Disciplinary knowledge is often defined and constrained by technologies and their representational and functional capabilities.
Pedagogical Content Knowledge (PCK)	This draws from Shulman's (1986) notion of "an understanding of how particular topics, problems, or issues are organized, represented, and adapted to the diverse interests and abilities of learners, and presented for instruction" (Shulman, 1986, cited in Koehler, 2014. p. 102)
Technological Pedagogical Knowledge (TCK)	This refers to an understanding of technology of (how) technology can constrain and afford specific pedagogical practices.
Technological Pedagogical Content Knowledge (TPACK)	This refers to knowledge about the complex relations among technology, pedagogy, and content that enable teachers to develop appropriate and context-specific teaching strategies.

Source: (Koehler et al, 2014. p. 102)

Koehler (2014) suggests that the TPACK framework has had an enormous influence in teacher education and teacher professional development because of its focus on higher order thinking skills, collaboration, and creativity.

Using and Evaluating Technological Tools

As third level teachers, we need to push out our cyber boundaries, experiment with, and integrate new technologies to enhance our teaching and learning. However, it is important that we do not use technology mindlessly or engage in technological determinism but that we evaluate each technological tool's efficacy and efficiency. Teaching and learning have been around for centuries but it is only in the twenty first century that we are seeking to embed technology within the teaching and learning process. One model that can help evaluate technology was developed by Dr Rueben Puentedura. It is a useful framework for teachers to reflect on how they are integrating technology in the classroom. The SAMR model (substitution, augmentation, modification and redefinition) demonstrates how teachers can move from enhancing learning to transforming learning (Puentedura, no date).

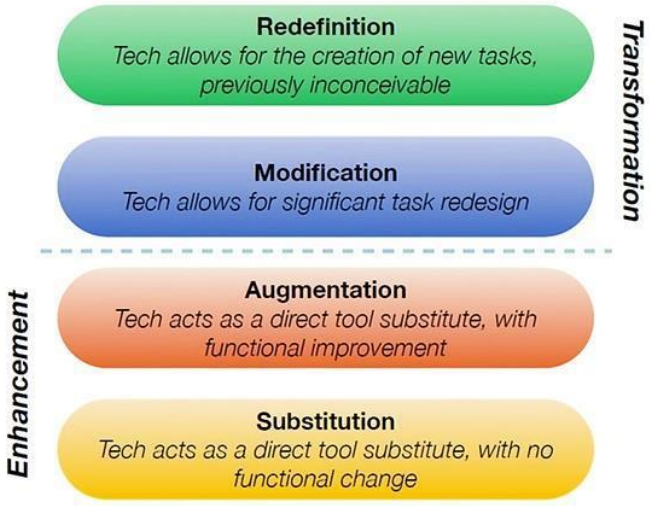

Figure 4. SAMR Model

Image the creation of Dr. Ruben Puentedura, Ph.D. http://www.hippasus.com/rrpweblog/

I will provide two very simple examples of the SAMR model. The first is how the traditional methods of writing and posting a letter have, for the most part, been substituted by electronic mail.

Table 11. SAMR Model Example Emails

SAMR Model	
Substitution	Electronic mail or email
Augmentation	The functional improvement is that emails can include attachments and links to internet sites.
Modification	The significant task redesign is that a large group of students can be emailed at the same time.
Redefinition	You no longer have to purchase stationery or stamps, go to the post-

SAMR Model	
	office, and stand in a queue to buy stamps and then wait for the recipient to receive the letter. These days, you can send bulk email to an entire class or cohort; the class will receive it instantaneously and simultaneously, thus saving time and energy and ensuring social inclusion and equality. Bulk email transforms communication.

The second example arises from a number of large-scale research projects that I have worked on as a researcher. I was project officer for an international collaborative qualitative project (with partners in Northern Ireland and Spain), funded by DG5 in the European Union. It was a longitudinal study conducted over four years, entitled Children Talking; why do they smoke? (Treacy et al. 2006; Hyde et al. 2000). With the help of research assistants, we gathered data from 75 Irish children aged 10- 11. I was tasked with carrying out the analysis. With such a large amount of data, I could simply have used the old-fashioned cut and paste method of data analysis, however, I explored the types of software packages that were available at the time on the market, and I also consulted qualitative researchers from other universities to get their advice. Ultimately, I chose QSR NUD*IST (an acronym for Non numerical Unstructured Data Indexing Searching and Theorizing software) (http://www.nursing-informatics.com/qsr1.html). I found this very helpful and subsequently used their most recent version, entitled QSR NVivo, for another large scale qualitative data analysis (http://www.qsrinternational.com) (Whitaker *et al*., 2011).

Table 12. SAMR Model Example QSR NVivo

SAMR Model	
Substitution	Typically qualitative data analysis involves familiarising yourself with your data: (transcribe interview), Generating initial codes: (may come from your questions); searching for themes: reviewing themes: defining and naming themes: making links between themes and relating them to the literature or theoretical framework, write up research report – (Braun and Clarke 2006, p. 87). I substituted the traditional method of analysing qualitative data to an electronic method for QSR NUD*IST.
Augmentation	Augmentation involves importing the interviews into the software package and creating nodes or codes.
Modification	The literature review can also be imported into the package, thus keeping all the components of research in one place.
Redefinition	Data analysis and interpretation were transformed. It was less labour intensive, tidier, and no data could get lost.

Dr Ruben Puentedura demonstrates how the SAMR model intersects with the TPACK framework in every knowledge domain. He has very generously made his work available freely through Creative Commons on his blog http://hippasus.com/blog/website

Broad Technological Eduscape in HEIs in Ireland

It is noteworthy that one of the cover pages of the report to the European Commission on *New Modes of Learning and Teaching in Higher Education* (2014) has a quotation by John Dewey … *if we teach today as we taught yesterday, we rob our children of tomorrow*. That report discusses the impact of online and open learning and how new technologies have the power to effect change; it sets out recommendations for enhancing higher education through new technologies. It suggests that there is a culture of conservatism within HEIs that needs to change and that there are clear benefits to embracing technology by offering online and blended learning programmes, online continuous professional development courses, and lifelong learning. The NFETL drew from this European report in, *A Roadmap for Enhancement in a Digital World 2015 – 2017* (NFETL, 2015b). In an introductory note from Prof. Mary McAleese, she says that technology is an important ally for education and emphasises the importance for Irish HEIs to embrace new technologies to advance the science of pedagogy and stay up to date. The report (NFETL, 2015 p. vi) highlights the vision for Higher Education that is characterised by an experience and environment in which:

- 'There is a culture that fully embraces digital learning and innovation and its contribution to realising transformative goals, as articulated in the *National Strategy for Higher Education*

- Digital platforms, resources and tools are utilised to enhance teaching, learning, and assessment, to connect teachers and students, and to increase the level and quality of learning-related communication

- Students will have access to a range of technological supports and resources to enhance their learning in a manner that enables them to become lifelong learners in the digital world

- Teachers will be fully enabled to use digital technologies/resources, where appropriate, in order to enhance student learning within their disciplines

- Institutions collaborate with each other, and with schools and further education sectors, in order to build digital capacity for teaching and learning, with students as key partners in the process

- Institutions collaborate effectively at the international level in both research and practice relating to technology-enhanced learning, for example, through the Erasmus+, and Horizon 2020 initiatives, enabling Irish Higher Education Institutions (HEI) to partner in a global landscape, building connections and developing a reputation, internationally, for innovation, digital fluency and cooperation' (NFETL, 2015 p. vi).

The NFETL (2015) provides recommendations based on building digital capacity, collaboration, changing practice and evidence based research. Some of themes and issues arising from the *Digital Roadmap* were addressed in the NFETL's funded project on digital skills development: *All Aboard* (NFETL, 2015a). The team carried out a comprehensive literature and policy review and an overview of key frameworks and models that describe digital literacies in higher educations. They defined a broad framework to develop digital skills and digital confidence, which is useful for students and teachers and all those who work in HEIs. They are graphically captured in a metro or subway map (*All Aboard*, 2015, pp. 34-35) (See Figure B in the appendices). The *All Aboard* report and website have a myriad of resources to support teaching and learning. The six components of the framework for digital skills are: Tools and Technologies, Communities and Collaborate, Create and Innovate, Find and Use, Identity and Wellbeing, and Teach and Learn, as illustrated in the text box below.

Tools and Technologies

These are the technical and practical aspects of the range of tools and technologies available and useful to support teaching, learning and research, managing and thriving in a digital age

Communities and Collaborate

Connect with each other and share ideas, regardless of distance or time

Create and Innovate

Be confident and empowered over the use of technologies to make new resources, express yourself, and take opportunities to develop new approaches and ways of interpreting ideas and the world around us

Find and Use

Find and use the skills and literacies needed to find relevant information and data and how to apply such information in an effective way and subject it to scrutiny, whether for effective learning or for research, scholarship, and professional purposes

Identity and Wellbeing

Understand the nature of your online self, data and information, privacy and protection, and taking care of yourself, others and information, in ways that are ethical and respectful

Teach and Learn

Teach and learn how to get the most out of technologies and materials to encourage engaged learning and make sense of new knowledge.

(Source: All Aboard, 2015)

Online resources for teaching and learning

The *All Aboard* report refers to a number of universities that provide open resources, for example, the Open University provides excellent free online resources to help teachers and students develop their digital capacity (*Being Digital Skills for Life Online*, ahttp://www.open.ac.uk/libraryservices/beingdigital/).

- *My digital identity:* making a good impression online, knowing your audience, and managing your online reputation.

- *Communication online* – adopting good practice and being aware of the rules.
- *Filtering information quickly* - build searching methods to handle information overload, in order to refine and then evaluate your results.
- *Pathways* - to obtain a deeper understanding (assess your skills, knowledge and confidence using web tools and environments),
- *Keeping up to date* (using blogs, twitter, RSS),
- *The right tool for the job* (key questions to ask when selecting the right tools online).
- *Exploring your information landscape* (information universe & getting to know the online library).
- *Self-assessment: understanding digital practices* – understanding your audience (digital identity, communication online, scams and hoaxes, and targeted Google search).
- *Self-assessment: creating information* – adding content to web pages, blogs, and practicing netiquette (Open University, 2016).

Virtual Learning Environments

According to Techtarget (2011), a virtual learning environment (VLE) is a set of teaching and learning tools designed to enhance a student's learning experience by including computers and the Internet in the learning process. The principle components of a VLE package include curriculum mapping (breaking curriculum into sections that can be assigned and assessed), student tracking, online support for both teacher and student, electronic communication (e-mail, threaded discussions, chat, Web publishing), and Internet links to outside curriculum resources. In general, VLE users are assigned either a teacher ID or a student ID. The teacher sees what a student sees, but the teacher has additional user rights to create or modify curriculum content and track student performance. There are a number of commercial VLE software packages available, including Blackboard, WebCT, Lotus LearningSpace, and COSE. The terms virtual learning environment (VLE) and managed learning environment (MLE) are often interchanged (Techtarget, 2011). Moodle is a popular open-source (under GBL licence) VLE, where modules can be uploaded and communities of practice can be facilitated through the use of forums. (https://moodle.org).

MOOCS

One of the most recent innovations in the democratisation of education is the creation of massive open online courses. A MOOC is defined as: An online course that is freely accessible to anyone and often includes open course materials and opportunities for interaction and collaboration between students (HLG, 2014). The European Union piloted a three month project, entitled EMMA (an acronym for the European Multiple MOOC Aggregator), which aims to showcase excellence in innovative teaching methodologies and learning approaches. It provides a system for the delivery of MOOCS, in diverse languages, to help preserve Europe's rich cultural heritage, and to promote cross cultural and multilingual learning (EMMA, 2014). The European Commission established the Open Education Europa website in 2013, for free open educational resources, which include learning resources and MOOCS (European Commission, 2013).

Ensuring security – dark net issues

Although the Internet may be an ally to educators, it can also be an enemy. Unfortunately, like other resources, the Internet has a dark side; the criminal element of the Internet is capable of doing much harm to you and your students (Wall, 2010). The device in your pocket has the power to destroy your reputation, and steal your money and ideas. Worst-case scenarios are those cases in which young people have taken their own lives as a result of cyber bullying on social media websites. There are also cases where people killed in tragic accidents have been photographed and their pictures circulated, resulting in hate mail to the survivors. People's personal identities have been hacked and some have had their information stolen (Herzog, 2016). Adult and children's photos have been downloaded from social media websites and ended up on porn sites. It is important that users are cognisant of these issues and protect their online identity and material. The *All Aboard* (2016) report examines these issues under the heading 'Identity and Wellbeing': digital footprint, online identity, social networks, security, safety, privacy, reputation, ethics, data protection, and password management.

Key messages

- The most significant change to education in the twenty first century is the dawn of the personal computer, the internet, and the smart phone (with mobile internet). This has facilitated the delivery of online and blended programmes. Communities of shared practice are developing globally, with an explosion in information. Our current educational system was designed in the industrial age. Technology is now an integral part of education. Teachers need to be equipped with skills to

meet the challenges of the 21st century. The net generation (those born after the 1980s) have different norms and values.

- The TPACK framework proposes how teachers can integrate subject content, pedagogy, and technology into their everyday lives. It integrates higher order thinking skills, collaboration, and creativity. However, technology should not be used mindlessly; the SAMR model provides a framework for assessing technology based on Substitution, Augmentation, Modification, and Redefinition. The SAMR model can intersect with the TPACK framework in every domain.
- Recent policy has fully embraced the use of technology and digital learning in higher education. A *Roadmap for Enhancement in a Digital World 2015-2017* has been published, which recommends building digital capacity, collaboration, and changing practices. A broad framework for building digital skills and confidence is advocated, based on six components: Tools and Technologies, Communities and Collaborate, Create and Innovate, Find and Use, Identity and Wellbeing, and Teach and Learn. These themes are graphically captured in a subway map. The All Aboard report and website has numerous resources to support teaching and learning.
- Ensuring personal security on the internet is a key priority because there is potential for criminal activity and harm. It is essential that teachers and learners are aware of these issues and protect their online identity and work.

Toolkit 7

Activity 1

Read the Policy recommendations overview (page 55) in the *Report to the European Commission on New Modes of Learning and Teaching in Higher Education* (HLG, 2014) http://ec.europa.eu/dgs/education_culture/repository/education/library/reports/modernisation-universities_en.pdf

Activity 2

Read the recommendations from the policy document, *A Roadmap for Enhancement in a Digital World 2015 – 2017* http://www.teachingandlearning.ie/wp-content/uploads/2015/03/Digital-Roadmap-web.pdf

Activity 3

Explore the All Aboard website: www.allaboardhe.org

Explore the interactive Digital Skills metro map by hovering over terms. http://allaboardhe.org/digital-skills-framework/

Activity 4

How can I protect my personal identity online? This question can be answered by visiting the Open University website: http://www.open.ac.uk/libraryservices/beingdigital/

Activity 5

What digital skills are useful to facilitate student learning? This question can be answered by visiting the Open University website: http://www.open.ac.uk/libraryservices/beingdigital/

Activity 6

How do you evaluate the technology you use?

- Visit https://sites.google.com/a/msad60.org/technology-is-learning/samr-model
- Watch this video: https://www.commonsensemedia.org/videos/introduction-to-the-samr-model
- https://www.commonsensemedia.org/videos/ruben-puentedura-on-applying-the-samr-model

Activity 7

What are digital badges and how can I use them? The All Aboard Website provides a useful downloadable resource pack on to use digital badges.
http://allaboardhe.org/digital-badges/

Activity 8

Check out the Digital Scholarship website, an Open Educational Resource for digital scholars http://www.digitalscholarship.ac.uk

Activity 9

Find 19 words in this word puzzle related to **Digital Capacity in Teaching and Learning** (solution in Appendix 2).

M	D	D	E	Y	H	T	K	Z	A	E	I	G	M	B
O	T	I	D	S	T	R	X	F	T	N	P	N	O	R
N	N	V	I	S	A	I	V	A	T	J	W	I	O	O
E	W	L	W	D	M	L	R	E	U	O	I	Y	D	A
T	N	F	I	Y	E	O	R	U	R	C	R	L	L	D
R	K	O	V	N	B	N	B	L	C	R	U	L	E	B
C	E	K	Z	A	E	L	D	D	U	E	E	U	L	A
V	H	V	L	T	A	Q	G	K	L	O	S	B	O	N
Z	T	L	O	T	E	C	H	N	O	L	O	G	Y	D
T	O	S	I	L	G	L	O	B	A	L	G	Y	R	C
C	W	G	Z	R	U	Y	T	I	T	N	E	D	I	I
S	I	E	K	C	H	T	S	L	O	O	T	N	I	N
D	N	L	B	A	H	Y	I	S	A	M	R	G	N	G
T	A	W	M	O	K	K	A	O	D	J	A	M	N	Z
A	D	Q	K	O	G	K	F	A	N	N	B	B	O	C

Activity 10

Reflective Practice: Reflect on your own use of technology in the classroom.

Activity 11

What evidence of your digital skills will you provide for your teaching portfolio?

Chapter 8 Conclusion

Introduction

In this final chapter, I will synthesise the salient arguments of this handbook and provide advice on developing the main sections for the teaching portfolio. The purpose of this handbook is to provide new teachers in independent higher education institutions in Ireland with the knowledge, skills, and competences to develop and enhance their teaching skills so that they can scaffold and support students' learning. The new teacher can acquire the habit of critical reflective practice, using the recommended tools, and can develop evidence of their personal intellectual growth and work practices and use this evidence for their teaching portfolios. As Barrett (2016) points out, teaching portfolios are always works in progress, there is no one portfolio for life; portfolios change as teachers grow in experience. The portfolio may consist of a physical box file or folder or a digital portfolio. It may be for your own private use or you may wish to share it with colleagues or students or you may wish to share it publicly; the decision remains entirely with you. This handbook seeks to complement the work of the NFETL (2016) and builds on their framework for professional development, which contains five domains and is underpinned by the values of inclusivity, authenticity, scholarship, learner-centreness, and collaboration. These five domains inform the structure of this handbook.

Personal Philosophy of Teaching

The first domain is about developing the self in teaching and learning. At some stage in our lives, we were pupils or students of formal learning systems. Thus, it is useful to reflect on which teacher inspired you; for example, who would you like to emulate? Next, it is important to develop your own personal philosophy of teaching statement and examine the extent to which it is congruent with the mission statement of the college you teach in. It is also necessary to reflect on the subject you teach and how your personal philosophy and values relate to your teaching practices. Examine your teaching strategies and methods and how effective they are in enhancing students' learning. Reflect on the characteristics of your students and to what extent you ensure the inclusion of all students, regardless of their age, gender, marital and family status, race, religion, Traveller identity, disability, and social class. Also, reflect on how you and your IHEI ensure the wellbeing of students and reflect on your own self-care.

Teaching philosophy statements should be short (800 words) and should incorporate what teaching and learning means to you, how your philosophy is congruent with the

mission of your organisation, the types of relationships you wish to foster with your students, and a brief discussion of your teaching and assessment methods.

Critical Reflective Practice

The second domain is our professional identity. Our professional identify may be bound up in our actual qualification, such as being a nurse or an engineer; however, if we teach in HEIs, we also need to create another professional identity based on the scholarship of teaching, learning, and assessment. A way of creating an identity as a HEI teacher is to engage in reflective practice. There are many different theories on what constitutes reflective practice, one of which is a model proposed by Brookfield (1995), based on the four lenses for critical reflection: the self, the student or learner, colleagues, and literature; to which I add another, the lens provided by the external examiner. Reflecting on one's own teaching requires keeping some kind of personal log; this can be done in a physical notebook or in the notes section of a smart phone. It is important to critically reflect on what went right and what went wrong or what could be improved in your teaching. Additionally, you could ask a student or peer to video your performance. Observing one's own teaching is a powerful way to see if you are living your values in your teaching methods, and whether you are successfully engaging your students. The second lens is feedback from your students; feedback can be elicited through end of module surveys, or through forum discussions. The third lens is through feedback from peers. Peers can observe you in your classroom or lecture theatre; a dedicated feedback form can be used to identify your key strengths and the areas where additional support is necessary or where improvements can be made. The fourth lens is engaging with theories of teaching and learning and reflecting on how your teaching methodologies correspond to those in the literature. The fifth lens is that of the external examiner, who provides objective feedback on your modules and ensures that the standards of academic qualifications are being upheld. It is also important to develop your professional development plan and your short and long-term goals and priorities. The second section of your portfolio should include evidence of your critical reflective practice.

Teaching and Learning Environments

The third domain focuses on professional communication and dialogue. Academic writing is synonymous with higher education and students need support and scaffolding. The curriculum is at the heart of the student-learning journey and is the formal agenda of higher education. It denotes a carefully crafted learning journey for the student from commencement to completion of their designated programme. Programmes should be

aligned with the institutional strategy and have explicit intended learning outcomes. Students and other stakeholders should be involved in their design and the programme should define the expected student workload in terms of credits.

Professional communication and dialogue in teaching and learning with students occurs in many educational places and spaces, in lecture theatres with traditional lectures, in face-to-face and online tutorials, in workshops and laboratories. To be effective, all learning sessions should be carefully crafted with the intended learning outcomes specified at the beginning, followed by an overview. New teachers need to be aware of the scholarship of teaching and learning, and should critically reflect on their own pedagogies and challenges and relate them to the published literature. Students are partners in the learning process and are entitled to a positive learning experience and a defined process in an IHEI. The six rules of the Ombudsman for good service provision apply equally to students. These rules are 1) Get it right, 2) Be student oriented, 3) Be open and accountable, 4) Act fairly and proportionately, 5) Deal with errors effectively and 6) seek continuous improvement.

Pedagogies and Assessment

There are many theories and explanations about how we learn (behaviourism, cognitivism, constructivism, connectivism) and theories about learning style preferences. Historically, the didactic lecture was the main teaching method in third level education; today, a constructive student centred approach is used, where the purpose of teaching is to support and scaffold the learner to achieve the intended learning outcomes of the lesson. In designing a module, teaching, learning, and assessment are closely aligned with the learning outcomes; this is referred to as constructive alignment and is designed to give support to the learner. New teachers should reflect on their theories of teaching and learning and whether their teaching encourages surface or deep approaches to learning. In addition, they need to examine whether their assessments are valid and reliable, measuring what it is they intend to measure; and they need to reflect on the feedback and feed forward they are giving to students in formative and summative assessments. This section of the portfolio could focus on the type of assessments you use.

Techology Enhanced Teaching and Learning

The fifth domain focuses on professional and personal digital capacity. We cannot ignore the fact that the twenty first century is synonymous with the growth of the Internet, and the important role that digital technology plays in teaching, learning, and assessment. Developing personal digital capacity and then applying the skills and knowledge to

enhance professional practice is essential. There are many tools available to develop these skills. In this section of the portfolio, teachers can reflect on, and provide evidence of, how they integrate technology into teaching, learning, and assessment.

Concluding Comments

In conclusion, third level teaching has a long history, dating back over 1,000 years. It is only in the last few decades that we are experiencing the democratisation of education and the increased access for students who were traditionally excluded. The role of the university has changed from Newman's (1889) concept of 'the teaching of universal knowledge, with a focus on cultivating the student's character', to its current role, which is an amalgamation of teaching, research, and public service (Clancy, 2015, p.3). The Bologna Process was a key driver of change, extolling the benefits of programme learning outcomes, module learning outcomes, and constructive alignment with assessments. Teaching has evolved, from a teacher centred approach, where the teacher was seen as the fountain of knowledge, to a student centred constructivist approach, where the student actively constructs knowledge through carefully designed learning activities. The National Forum for the Enhancement of Teaching and Learning (2016) recommends that those teaching in higher education engage in continuous professional development and record evidence of this development in a teaching portfolio.

References

AHEAD (2010) *Association for Higher Education Access and Disability*. Blackrock, Co. Dublin: AHEAD. Available at: http://www.ahead.ie (Accessed: 1 June 2015).

AHEAD (no date) *Charter for Inclusive Teaching and Learning*. Dublin: Ireland. Available at: https://www.ahead.ie/userfiles/files//documents/Charter_4_Inclusive_Teaching_&_Learning_Online_Version.pdf (Accessed: 15 July 2016).

Alexander, P., Schallert, D. and Reynolds, R. (2009) 'What is learning anyway? A topographical perspective considered', *Educational Psychologist*, 44(3), pp. 176–192.

Alterio, M. (no date) *Using story telling to enhance student learning*. New Zealand: The Higher Education Academy. Available at: https://eclass.uowm.gr/modules/document/file.php/ELED163/Μάθημα%208ο%3A%20Χρήση%20των%20ιστοριών%20στη%20διδασκαλία/Alterio,%20M.,%20(2003).pdf (Accessed: 25 February 2017).

Arensberg, C. and Kimball, S. (1937) *Family and Community in Ireland*. USA: Harvard University Press.

Ashworth, F., Brennan, G., Egan, K., Hamilton, R. and Saenz, O. (2004) 'Learning Theories and Higher Education', *Level 3*, (2). Available at: http://arrow.dit.ie/cgi/viewcontent.cgi?article=1003&context=engscheleart (Accessed: 27 March 2017).

Association for Higher Education Access & Disability (2011) Survey on the Participation Rates of Students with Disabilities in Higher Education for the Academic Year 2010/2011. Dublin: AHEAD Educational Press.

Austin, T. and Bhandon, J. (2013) 'The Academic Librarian: Buying Into, Playing Out, and Resisting the Teacher Role in Higher Education', *New Review of Academic Librarianship*, 19(15–35), pp. 15–35.

Bach, S., Haynes, P. and Lewis Smith, J. (2007) *Online learning and teaching in Higher Education*. Buckingham: Open University Press.

Barrett, T. (2005) 'What is Problem-Based Learning?', in *Emerging Issues in the Practice of University Learning and Teaching*. Higher Education Authority. Available at: http://www.aishe.org/readings/2005-1/barrett-What_is_Problem_B_L.pdf.

Bell, A. S., Rajendran, D. and Theiler, S. (2012) 'Job Stress, Wellbeing, Work-life Balance and Work-Life Conflict Among Australian Academics', *Electronic Journal of Applied Psychology*, 8(1), pp. 25–37.

Bell, S. J. and Shank, J. (2004) 'The blended librarian A blueprint for redefining the teaching and learning role of academic librarians', *College & Research Libraries*, pp. 372–375.

Biggs, J. and Tang, C. (2007) *Teaching for Quality Learning at University*. 3rd edn. Berkshire: Open University Press.

Biggs, J. and Tang, C. (2011) *Teaching for Quality Learning at University*. 4th edn. Berkshire, England: McGraw Hill Society for Research into Higher Education & Open University Press.

Bloom, B., Englehart, M., Furst, E., Hill, W. and Krathwohl, D. (1956) *Taxonomy of educational objectives. Volume 1 The cognitive domain*. New York: Longman.

Brown, K. (2015) *Internet Society Global Internet Report 2015*. USA: Internet Society. Available at: http://www.internetsociety.org/globalinternetreport/assets/download/IS_web.pdf (Accessed: 30 October 2016).

Carlile, O. and Jordan, A. (2005) 'It works in practice but will it work in theory? The theoretical underpinnings of pedagogy', in *Emerging Issues in the Practice of University Learning and Teaching*. Dublin: All Ireland Society for Higher Education. Available at: http://www.aishe.org/readings/2005-1/ (Accessed: 6 April 2017).

Carruthers, C. P. and Deyell Hood, C. (2004) 'The power of the positive: leisure and wellbeing', *Therapeutic Recreation Journal*, 38(2), pp. 225–245.

Central Statistics Office (2000) *That was then, This is now Change in Ireland, 1949-1999*. Ireland: Central Statistics Office.

Central Statistics Office (no date) *Census of Population (2006 & 2011)*. Ireland: Central Statistics Office. Available at: http://www.cso.ie/en/index.html (Accessed: 1 June 2015).

Centre for Early Childhood Development and Education (2006) *Siolta The National Quality Framework for Early Childhood Education*. Available at: http://www.siolta.ie/media/pdfs/23746%20Full%20and%20Part%20Time%20Text.pdf (Accessed: 15 September 2013).

Clancy, P. (2015) *Irish Higher Education A Comparative Perspective*. Dublin: Institute of Public Administration.

Coburn, T., Grace, F., Klein, A. C., Komjathy, L., Roth, H. and Simmer-Brown, J. (2011) 'Contemplative Pedagogy: Frequently Asked Questions', *Teaching Theology and Religion*, 14(2), pp. 167–174.

Confederation of EU Rectors (2000) *The Bologna Declaration on the European Space for Higher Education: an explanation*. Bologna. Available at: http://ec.europa.eu/education/policies/educ/bologna/bologna.pdf.

Cook, B. R. and Babon, A. (2017) 'Active learning through online quizzes: better learning and less (busy) work', *Journal of Geography in Higher Education*, 41(1), pp. 24–38.

Coughlan, A. (2015) *Identifying the professional development needs of part-time academic staff in higher education institutions in Ireland*. Dublin: EDIN/HECA. Available at: https://parttimelecturingproject.wordpress.com (Accessed: 23 October 2016).

CSO (2015) *Statistical Yearbook of Ireland 2015*. Central Statistics Office: Ireland. Available at: http://www.cso.ie/en/releasesandpublications/ep/p-syi/statisticalyearbookofireland2015/society/education/ (Accessed: 27 March 2016).

Denny, K. (2010) 'What did abolishing university fees do?', *UCD Geary Institute Discussion Paper Series*, pp. 1–26.

Department of Education and Science (1995) *Charting our Education Future - White Paper on Education*. Available at: https://www.education.ie/en/Publications/Policy-Reports/Charting-Our-Education-Future-White-Paper-On-Education-Launch-Copy-1995-.pdf (Accessed: 23 July 2016).

Department of Education and Science (2001) *Report of the Action Group on Access to Third Level Education*. Dublin: The Stationary Office. Available at:

https://education.ie/en/Publications/Policy-Reports/Report-of-the-Action-Group-on-Access-to-Third-Level-Education.pdf (Accessed: 14 December 2016).

Department of Education and Skills (2011) *National Strategy for Higher Education to 2030*. Available at: http://www.hea.ie/en/Publications (Accessed: 23 September 2012).

DES & ESF (2014) *Springboard*. Available at: https://www.springboardcourses.ie (Accessed: 7 January 2017).

Dewey, J. (1910) *How we think*. Boston: D.C. Heath & Co.

Douglas, D. (2016) 'Are we there yet?' in *Funding of Higher Education Challenges and Solutions in* Higher Education Colleges Association, Conference, Dun Laoghaire. (Available at:http://www.heca.ie/heca-conference-2016/ Accessed 14 April 2017).

Egan, A. and Costello, L. (2016) 'Peer Assessment of, for and as Learning; A Core Component of an Accredited Professional Development Course for Higher Education Teachers', in *AISHE-J*. 3rd edn. Dublin, pp. 2931–29313. Available at: http://ojs.aishe.org/index.php/aishe-j/article/view/293/471 (Accessed: 5 November 2016).

Elwood, J. and Klenowski, V. (2002) 'Creating communities of shared practice: the challenges of assessment use in learning and teaching', *Assessment & Evaluation in Higher Education*, 27(3), pp. 243–256.

Emerson, L., Rees, M. and MacKay, B. (2005) 'Scaffolding Academic Integrity: Creating a learning context for teaching referencing skills', *Journal of University Teaching and Learning Practice*, 2(3), pp. 13–24.

EMMA (2014). European Union: European Commission. Available at: https://platform.europeanmoocs.eu (Accessed: 30 October 2016).

ENQA (2009) *Standards and Guidelines for Quality Assurance in the European Higher Education Area*. Helsinki: European Association for Quality Assurance in Higher Education. Available at: http://www.enqa.eu/wp-content/uploads/2013/06/ESG_3edition-2.pdf (Accessed: 19 July 2015).

ESG (2015) *Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG)*. Brussels: EURASHE. Available at: https://www.dkit.ie/system/files/ESG%202015%20(as%20endorsed%20by%20ministers).pdf (Accessed: 24 July 2016).

European Commission (2013) *Open Education Europa*. Europe: European Commission. Available at: http://openeducationeuropa.eu (Accessed: 30 October 2016).

European Commission (no date) *The Bologna Process and the European Higher Education Area*. Brussels: EU Commission. Available at: http://ec.europa.eu/education/policy/higher-education/bologna-process_en.htm (Accessed: 9 November 2016).

Freire, P. (1968) *Pedagogy of the oppressed*. New York: Continuum Books.

Fry, H., Ketteridge, S. and Marshall, S. (2009) *A Handbook for Teaching and Learning in Higher Education*. 3rd edn. New York: Routledge. Available at: http://biblioteca.ucv.cl/site/colecciones/manuales_u/A%20Handbook%20for%20Teaching%20and%20Learning%20in%20Higher%20Education%20Enhancing%20academic%20and%20Practice.pdf (Accessed: 6 April 2017).

Gabuadan, O. and Norton, S. (2016) 'Quiz mastery: Students as bloggers and testers in pursuit of grammatical competence', *Aishe_J The All Ireland Journal of Teaching & Learning in Higher Education*, 8(2), pp. 2791–27911.

Gardner, H. (1993) Multiple Intelligences the theory in practice. New York: Basic Books.

Giddens, A. (2009) *Sociology*. 6th edition. Cambridge: Polity Press.

Glanville, G., Iwashima, R. and Becker, B. A. (2014) 'Introducing Contemplative Pedagogy to the classroom: Implementation, experience and effects on concentration', in *Contemplative Pedagogies*. *International Conference on Engaging Pedagogy (ICEP)*, Athlone. Available at: http://icep.ie/wp-content/uploads/2015/01/icep20140_contemplative_pedagogy.pdf.

Griffin, V. R. (1993) 'Holistic Learning and Teaching 'Would you play a one string guitar?', in *The craft of teaching adults*. Toronto, Canada: Culture Conceps.

Hallissy, M., Butler, D., Hurley, J. and Marshall, K. (2013) *Redesigning Education: Meeting the Challenges of the 21st Century*. Ireland: Microsoft. Available at: http://blog.teachnet.ie/docs/MSLearningPaperMay13.pdf (Accessed: 29 January 2017).

Harmon, D. and Foubert, O. (2013) *Eurostudent Survey V Report on the Social and Living Conditions of Higher Education Students in Ireland 2013*. Ireland: Higher Education Authority. Available at: http://www.hea.ie/sites/default/files/eurostudentv_final.pdf (Accessed: 21 July 2016).

Herzog, W. (2016) *Lo and Behold*. Available at: http://tickets.loandbeholdfilm.co.uk/trailer (Accessed: 30 October 2016).

Higgs, B. and McCarthy, M. (2005) 'Active Learning - From Lecture Theatre to Field Work', in *Emerging Issues in the Practice of University Learning and Teaching*. Dublin: Higher Education Authority. Available at: http://www.aishe.org/readings/2005-1/toc.html (Accessed: 22 October 2016).

High Level Group on the Modernisation of Higher Education (2013) *Report to the European Commission on Improving the quality of teaching and learning in Europe's higher education institutions*. Luxembourg: Publications Office of the European Union. Available at: http://ec.europa.eu/education/library/reports/modernisation_en.pdf (Accessed: 20 July 2016).

High Level Group on the Modernisation of Higher Education (2014) *Report to the European Commission on New Modes of learning and teaching in higher education*. Luxembourg: European Commission. Available at: http://ec.europa.eu/dgs/education_culture/repository/education/library/reports/modernisation-universities_en.pdf (Accessed: 30 October 2016).

Higher Education and Training Awards Council (2009) Implementing the National Framework of Qualifications, and Applying the European Standards and Guidelines Assessment and Standards. Dublin: HETAC. Available at: http://www.hetac.ie/docs/Assessment_and_Standards_2009%20Published.pdf.

Higher Education Authority (2008) *National Plan for Equity of Access to Higher Education 2008-2013*. Dublin, Ireland: National Office of Equity of Access to Higher Education. Available at: http://www.hea.ie/sites/default/files/national_plan_for_equity_of_access_to_higher_ed.pdf (Accessed: 1 June 2015).

Hisle, W. L. (2002) 'Top issues facing academic libraries: A report of the Focus on the Future Task Force', *C&RL News*, 63(10). Available at: http://www.ala.org/acrl/proftools/recruiting/topissuesfacing (Accessed: 16 March 2017).

Honey, P. and Mumford, A. (2007) *The Trainer Styles Questionnaire*. Maidenhead: Peter Honey Publications.

HRI (2016) *The Happy Danes Exploring the reasons behind the high levels of happiness in Denmark*. Denmark: The Happiness Institute. Available at: https://www.google.ie/?gws_rd=cr,ssl&ei=S0TNWJyyEenWgAb23ZLAAw#q=The+Happy+Danes+Explo&* (Accessed: 18 March 2017).

Hughes, J. and Moore, I. (2007) 'Reflective portfolios for professional development', in *Teaching Portfolio Practice in Ireland A Handbook*. Dublin: Trinity College. Available at: https://www.google.ie/?gws_rd=cr,ssl&ei=MhGsVc2sFaeH7QbWloLIAg#q=teaching+portfolio+practice+in+ireland+a+handbook (Accessed: 19 July 2015).

Hyde, A., Treacy, M., Boland, J., Whitaker, T., Santos, P. and Knox, B. (2000) 'Young People's Perceptions of and Experiences with drugs: findings from an Irish study', *Health Education Journal*, 59(2), pp. 180–188.

Internet Society (2014) *Internet Society Global Internet Report 2014*. Geneva, Switzerland: Internet Society. Available at: http://www.internetsociety.org/sites/default/files/Global_Internet_Report_2014_0.pdf (Accessed: 7 February 2015).

Ireland (2000) *Equal Status Acts 2000 - 2004*. Available at: http://www.justice.ie/en/JELR/EqualStatusActsConsldtd_00_04.pdf/Files/EqualStatusActsConsldtd_00_04.pdf (Accessed: 8 September 2013).

Ireland: *Disability Act 2005*. Available at: http://www.irishstatutebook.ie/eli/2005/act/14/enacted/en/html (Accessed 7th April 2017).

Ireland: *Education Act 1998*, Available at: http://www.irishstatutebook.ie/eli/1998/act/51/enacted/en/html (Accessed 7th April 2017).

Ireland: *Education for Persons with Special Educational Needs Act 2004*. Available at: http://www.oireachtas.ie/viewdoc.asp?fn=/documents/bills28/acts/2004/A3004.pdf (Accessed: 8 September 2013).

Ireland: Employment Equality Act 1998. Available at: http://www.irishstatutebook.ie/1998/en/act/pub/0021/ (Accessed: 12 September 2017)

Ireland: *Qualifications and Quality Assurance (Education and Training) Act* (2012). Available at: http://www.oireachtas.ie/viewdoc.asp?DocID=21699&CatID=87 (Accessed: 23 September 2012).

Ireland: Universities Act 1997 Available at: http://www.irishstatutebook.ie/eli/1997/act/24/enacted/en/html (Accessed 7th April 2017).

IUA (no date) *University Research Activity*. Available at: http://www.iua.ie/research-innovation/university-research-activity/.

Jaffe, E. (2010) 'The psychological study of smiling', *Observer*, 2010(December). Available at: http://www.psychologicalscience.org/observer/the-psychological-study-of-smiling?ref=driverlayer.com%2Fweb#.WM1GTxicZEI (Accessed: 18 March 2017).

Kabat-Zinn, J. (2003) 'Mindfulness-based interventions in context: Past, present, and future', *Clinical Psychology: Science and Practice*, 10(2), pp. 144–156.

Kennedy, D., Hyland, A. and Ryan, N. (2006) *Implementing Bologna in your institution (c 3. 4-1) Writing and using learning outcomes: a practical guide*. Ireland: Dublin City University. Available at: http://sss.dcu.ie/afi/docs/bologna/writing_and_using_learning_outcomes.pdf.

Kim, K.-J. and Bonk, C. J. (2006) 'The future of online teaching and learning in Higher Education: The Survey says':, *Educause Quarterly*, (4).

Koehler, M. J. and Mishra, P. (2009) 'What is Technological Pedagogical Content Knowledge?', *Contemporary Issues in Technology and Teacher Education*, 9(1), pp. 60–70.

Koehler, M. J., Mishra, P., Kereluik, K., Shin, T. S. and Graham, C. R. (2014) 'The Technological Pedagogical Content Knowledge Framework', in *Handbook of Research on Educational Communications and Technology*. New York: Springer, pp. 101–111. Available at: http://www.punyamishra.com/wp-content/uploads/2013/08/TPACK-handbookchapter-2013.pdf (Accessed: 3 March 2017).

Kuhn, T. (2012) The structure of scientific revolutions: 50th-Anniversary Edition. United States: University of Chicago Press.

Lennart, B. (2003) Teaching Academic Writing in European Higher Education. USA: Kluwer Academic Publisher.

Letterman, M. and Dugan, K. B. (2004) 'Team Teaching a Cross-Disciplinary Honors Course: Preparation and Development', *College Teaching*, 52(2) (Spring 2004), pp. 76–79.

Lodge, A. and Lynch, K. (2004) *Diversity at School*. Dublin: Institute of Public Administration. Available at: http://integration.ie/website/omi/omiwebv6.nsf/page/AXBN-83GM8P16232912-en/$File/Diversity_at_School%5B1%5D.pdf (Accessed: 12 September 2013).

Lynch, J. (2008) Blended Learning and Online Tutoring, Planning Learner Support and Activity Design. 2nd edn. Hampshire, England: Gower Publishing Ltd.

Lyubomirsky, S. and Layous, K. (2013) 'How do simple positive acivities increase well-being?', *Current Directions in Psychological Science*, 22(57), pp. 57–62.

Mah y Busch, J. D. (2014) 'A Pedagogical Heartbeat: The Integration of Critical and Contemplative Pedagogies for Transformative Education', *The Journal of Contemplative Inquiry*, (1), pp. 113–135.

Marshall, C. and Rossman, G. (2006) *Designing Qualitative Research*. Thousand Oaks, California: Sage Publications.

McDonnell, C. (2010) 'The causal link between teaching and learning: Some metaphysical, ethical and political considerations', in *Yearbook of the Irish Philosophical Society 2009*. Dublin: Irish Philosophical Society.

McDrury, J. and Alterio, M. (2004) Learning through story telling in Higher Education Using Reflection and Experience to improve learning. London: Taylor & Francis e-Library.

McMahon, T., Barrett, T. and O'Neill, G. (2007) *Using observation of teaching to improve quality*. Dublin: UCD. Available at: http://www.ucd.ie/t4cms/UCDTLD0070.pdf (Accessed: 6 April 2017).

McNiff, J. (2002) *Action Research for professional development Concise advice for new action researchers*. 3rd edition. UK: Author. Available at: http://www.jeanmcniff.com (Accessed: 19 October 2014).

McPhillips, T. (2011) Supporting Teaching and Learning in the Second-Level School, A resource for teachers. Ireland: Blackrock Education Centre.

Mezirow and Associates, J. (1990) Fostering critical reflection in Adulthood: A guide to transformative and emancipatory learning. California: Jossey-Bass Inc.

Mishra, P. and Koehler, M. J. (2006) 'Technological Pedagogicl Content Knowledge: A Framework for Teacher Knowledge', *Teachers College Record*, 108(6), pp. 1017–1054.

Moore, S. and Kuol, N. (2005) 'A Punative Bureaucratic Tool or a Valuable Resource? Using Student Evaluations to Enhance Your Teaching', in *Emerging Issues in the Practice of University Learning and Teaching*. Dublin: Higher Education Authority (Aishe Readings, 1), pp. 141–148. Available at: http://www.aishe.org/readings/2005-1/moore-A_punitive_bureaucratic_tool_or_a_valuable_resource.pdf (Accessed: 5 November 2015).

Moore-Cherry, N., Quin, S. and Burroughs, E. (2015) *Why Students Leave: Findings from Qualitative Research into Student Non-Completion in Higher Education in Ireland*. Dublin: National Forum for the Enhancement of Teaching and Learning. Available at: http://www.teachingandlearning.ie/wp-content/uploads/2015/07/Project-4.pdf (Accessed: 24 July 2016).

Murray, R. and Moore, S. (2006) *Handbook of Academic Writing: A Fresh Approach*. Buckingham: Open University Press.

NAIRTL (2012) *Developing an institutional framework for supporting supervisors of research students, A practical guide*. Available at: https://www.ulg.ac.be/upload/docs/application/x-octetstream/2015-11/supervisorsupport_guide.pdf, (Accessed: 6 April 2017).

National Council for Curriculum and Assessment (2009) *Aistear The Early Childhood Curriculum Framework*. Dublin: National Council for Curriculum and Assessment. Available at: http://www.ncca.ie/en/Curriculum_and_Assessment/Early_Childhood_and_Primary_Education/Early_Childhood_Education/Framework_for_early_learning/ (Accessed: 12 September 2013).

National Forum for the Enhancement of Teaching and Learning (2016) *National Professional Development Framework for all Staff who Teach in Higher Education*. Dublin: NFETL. Available at: http://www.teachingandlearning.ie/wp-content/uploads/2016/09/PD-Framework-FINAL-1.pdf (Accessed: 6 April 2017).

NCSE (2003) *National Council for Special Education*. Dublin, Ireland. Available at: http://ncse.ie (Accessed: 1 June 2015).

NFETL (2015a) 'All Aboard Digital Skills Framework for Irish Higher Education'. Available at: http://www.teachingandlearning.ie/wp-content/uploads/2015/04/DigitalSkillsFrameworkHE.pdf (Accessed: 30 October 2016).

NFETL (2015b) *Teaching and Learning in Irish Higher Education: A Roadmap for Enhancement in a Digital World 2015-2017*. Dublin: NFTL. Available at: http://www.teachingandlearning.ie/priority-themes/benchmarking-digital-platform/ (Accessed: 5 July 2015).

NMBI (no date) *Education Standards and Requirements*. Dublin: Nursing and Midwifery Board of Ireland. Available at: https://www.nmbi.ie/Education/Higher-Education-Institutions/Approvals-Nursing-Programmes/Curriculum-Design (Accessed: 6 April 2017).

Nwachukwu, C. (2015) *Flipped Classroom Model*. Available at: http://www.nannna.org/docs/NANNNA_Flipped_Classroom_Model.pdf (Accessed: 29 January 2017).

O'Farrell, C. (2007) *Teaching Portfolio Practice in Ireland*. Ireland: Higher Education Authority. Available at: https://www.tcd.ie/CAPSL/assets/pdf/Teaching_Portfolio_Practice_in_Ireland.pdf (Accessed: 6 April 2017).

O'Farrell, C. (No date) *Writiing a Teaching Philosophy Statement*. CAPSL: Trinity College Dublin. Available at: https://www.tcd.ie/CAPSL/assets/pdf/Philsophy_Statement.pdf (Accessed: 21 March 2017).

O'Neill, G. (2015) *Curriculum Design in Higher Education: Theory to Practice*. 1st Edition. Dublin: UCD Teaching and Learning. Available at: http://www.ucd.ie/t4cms/UCDTLP0068.pdf.

O'Neill, G. and McMahon, T. (2005) 'Student-centred learning: What does it mean for students and lecturers?', in *Emerging Issues in the Practice of University Learning and Teaching*. Dublin. AISHE, pp. 27–36.

O'Sullivan, S., Gibney, A., Guerin, S., Staunton, M. and Manolis, K. (2015) *Mapping Existing Research Output Focused on Higher Education Teaching and Learning in Ireland 1990-2015*. Focused Research Report No. 5 2015. Ireland: NFETL. Available at: http://www.teachingandlearning.ie/wp-content/uploads/2015/07/Project-5-Mapping-Existing-Research-Output.pdf (Accessed: 15 October 2016).

OECD (2010) *Learning Our Lesson: Review of Quality Teaching in Higher Education*. OECD. Available at: https://www.oecd.org/edu/imhe/44661742.pdf (Accessed: 6 April 2017).

OECD (2016) *Education at a glance 2016: OECD Indicators*. Paris: OECD Publishing. Available at: http://www.oecd-ilibrary.org/docserver/download/9616041e.pdf?expires=1489739744&id=id&accname=guest&checksum=F42402CCB9567895751B6CCD9A398B9E (Accessed: 17 March 2017).

Office of the Ombudsman (no date) *Six rules for getting it right The Ombudsman's guide to good administration*. Dublin. Available at: https://www.ombudsman.gov.ie/en/Publications/Guidelines-for-Public-Bodies/Six-Rules-for-Getting-it-Right/Six-Rules.pdf (Accessed: 23 March 2017).

Ohler, J. (2006) 'The world of Digital Storytelling', *Educational Leadership*, 63(4), pp. 44–47.

Open University (2016) *Being digital Skills for life online*. Milton Keynes: Open University. Available at: http://www.open.ac.uk/libraryservices/beingdigital/ (Accessed: 30 October 2016).

Prensky, M. (2011) *From Digital Natives to Digital Wisdom; Hopeful essays for 21st Century Learning*. Corwin Press. Available at: http://marcprensky.com/writing/Prensky-Intro_to_From_DN_to_DW.pdf.

Puentedura, R. (no date) *SAMR and TPCK: Intro to Advanced Practice*. Available at: http://hippasus.com/resources/sweden2010/SAMR_TPCK_IntroToAdvancedPractice.pdf (Accessed: 6 March 2017).

QQI (2015) *Effective Practice Guidelines for External Examining*. Dublin: Quality and Qualifications Ireland. Available at: https://www.qqi.ie/Publications/Publications/Effective%20Practice%20Guidelines

%20for%20External%20Examining%20Revised%20February%202015.pdf (Accessed: 6 April 2017).

Quality and Qualifications Ireland (2013) *Assessment and Standards, Revised 2013*. Available at: https://www.qqi.ie/Publications/Publications/Assessment_and_Standards%20Revised%202013.pdf (Accessed: 6 April 2017).

Rodgers, C. (2002) 'Defining Reflection: Another look at John Dewey and Reflective Thinking', *Teachers College Record*, 104(4), pp. 842–866.

Sable, D. (2014) 'Reason in the Service of the Heart: The Impacts of Contemplative Practices on Critical Thinking', *The Journal of Contemplative Inquiry*, (1–22).

Samaras, A. (2011) Self-Study Teacher Research, Improving your practice through Collaborative Inquiry. California: Sage Publications.

Savery, J. (2006) 'What is Problem-Based learning (PBL)?', *Interdisciplinary Journal of Problem-Based Learning*, 1(1), pp. 9–20.

Simpson, D., Jackson, M. and Ayock, J. (2005) *John Dewey and the Art of Teaching Toward Reflective and Imaginative Practice*. California: Sage Publications.

Stuart, H. (2012) *Key Statistics*. Available at: http://www.education.ie/en/Publications/Statistics/Key-Statistics/ (Accessed: 23 September 2012).

Surgenor, P. (2010) *Teaching Toolkit How Students Learn 1*. Dublin: University College Dublin. Available at: http://www.ucd.ie/t4cms/UCDTLT0016.pdf (Accessed: 6 April 2017).

Tapscott, D. (1998) Growing up digital; the rise of the Net Generation. USA: McGraw Hill.

Tapscott, D. (2009) *Grown up Digital How the Net Generation is Changing the World*. New York: McGraw HIll. Available at: http://socium.ge/downloads/komunikaciisteoria/eng/Grown_Up_Digital_-_How_the_Net_Generation_Is_Changing_Your_World_(Don_Tapscott).pdf (Accessed: 5 March 2017).

TCD (2015) *Curricula Debates in Higher Education - an overview 2014 2015*. Trinity College Dublin: CAPSL. Available at: https://www.tcd.ie/CAPSL/assets/pdf/Curricula_Debates_in_Higher_Education.pdf.

Techtarget (2011) 'Virtual leaning environment (VLE) or managed learning environment (MLE)'. Available at: http://whatis.techtarget.com/definition/virtual-learning-environment-VLE-or-managed-learning-environment-MLE (Accessed: 31 October 2016).

Treacy, M., Boland, J., Whitaker, T., Santos, P. and Knox, B. (2006) 'Children Talking: Emerging Perspectives and Experiences of Cigarette Smoking', *Qualitative Health Research*, 17(2), pp. 238–249.

Tuncel, I. and Bahtiyar, A. (2015) 'A case study on constructivist learning environment in content knowledge courses in science teaching', *Procedia Social and Behavioral Sciences*, 174, pp. 3178–3185.

UN (2016) *World Happiness Report 2016 Volume 1*. United Nations. Available at: http://worldhappiness.report/wp-content/uploads/sites/2/2016/03/HR-V1_web.pdf (Accessed: 18 March 2016).

UNESCO (2009) *Trends in Global Higher Education: Tracking an Academic Revolution*. France: UNESCO. Available at: http://unesdoc.unesco.org/images/0018/001831/183168e.pdf.

Vygotsky, L. (1978) 'Interaction between learning and development', *Mind and Society*, pp. 79–91.

Wall, D. (2010) How serious are 'Cybercrimes'? in *Sociology: Introductory Readings* (3rd Ed) A. Giddens and P. Sutton (editors), Cambridge: Polity Press.

Walsh, J., McCoy, S., Seery, A. and Conway, P. (2014) 'Investment in Education and the intractabiity of inequality', *Irish Educational Studies*, 33(2), pp. 119–122.

Weare, K. (2012) *Evidence for the Impact of Mindfulness on Children and Young People*. Exeter: The Mindfulness in Schools Project in association with University of Exeter.

Whitaker, T. (2016) 'Achieving social inclusion for students with non-visible disabilities: a case study of a student studying for ITE with an anxiety related disorder in an online higher education institution', *Association for Higher Education Access & Disability*, 3, pp. 94–108.

Whitaker, T., Ryan, P. and Cox, G. (2011) 'Stigmatization Among Drug-Using Sex Workers Accessing Support Services in Dublin', *Qualitative Health Research*, 21(8), pp. 1086–1100.

WHO (2013). Geneva, Switzerland: World Health Organization. Available at: http://apps.who.int/iris/bitstream/10665/89966/1/9789241506021_eng.pdf?ua=1 (Accessed: 18 March 2017).

Worldometers and 7 Billion World (2016) *Live stats*. Worldometers and 7 Billion World. Available at: http://www.internetsociety.org/globalinternetreport/assets/download/IS_web.pdf (Accessed: 30 October 2016).

Zajonc, A. (2013) 'Contemplative Pedagogy: A quiet Revolution in Higher Education', *New Directions for Teaching and Learning*, 134, pp. 83–94.

Appendices

Appendix 1: Mapping learning outcomes to NFETL(2013) professional development framework

Learning Outcome	Chapter Learning Outcome	National Framework Domains & Elements
Be a reflective and reflexive practitioner (Chapter 3)	1. Identify the key personal characteristics that motivate and challenge teaching, learning, and scholarship and that may impact on student learning or wellbeing. 2. Reflect on prior learning experiences that contribute, or are barriers, to teaching, i.e. prior experience and knowledge as a student, as a teacher, as a researcher, in personal life. **3.** Describe and discuss a personal philosophy of teaching and awareness of the extent that this aligns, or does not align, with your institution or learning context's values on teaching and learning.	Domain 1: Personal Development: The 'Self' in Teaching and Learning 1.1 Identification of and reflection on the key personal characteristics (values, perspectives, and emotions) that motivate and challenge teaching, and their impact on student learning and the scholarship of teaching and learning. 1.2 Reflection on prior learning and life experiences that contribute, or are barriers, to teaching, i.e. prior experience and knowledge: as a student, as a teacher, as a researcher and in life. 1.3 Articulation of a personal philosophy of, and approach to, teaching. 1.4 Reflection on the impact of current working context on self. 1.5 Awareness of the extent to which personal philosophy aligns with, or confronts, current institutional, national, and international context and associated values.
Be a reflective and reflexive practitioner Apply appropriate teaching and learning strategies to engage diverse cohorts of students in diverse	1. Articulate a professional identity and identify unique features of your current roles and responsibilities that potentially impact on teaching and learning practice	Domain 2 Professional Identity, Values and Development in Teaching and Learning 2.1 Articulation of a professional/disciplinary identity, including current roles and responsibilities, and identification of unique features of current roles and responsibilities that potentially impact on teaching and learning practices, e.g. external examining, industry liaison, outreach activities, technological competence, information literacy development.

Learning Outcome	Chapter Learning Outcome	National Framework Domains & Elements
educational settings (Chapter 4)	2. Evaluate your teaching and its impact on student learning based on self/peer review/observation and other evidence **3.** Develop an evidence-based, reflective professional development learning plan	2.2 Evaluation of teaching and impact on student learning, based on self/peer review/peer observation, student feedback, and/or other evidence. 2.3 Awareness of and contribution to the scholarship of teaching and learning, through sharing of practice, developing evidence-based approaches, research into, dissemination and/or application of, research on teaching and learning. 2.4 Enactment of the values underpinning professional development and consideration of; respect for individuals and groups of diverse learners and staff; awareness of and promotion of ethical values and behaviour; promotion of participation of student learners; advancement and advocacy of discipline; sharing of resources; developing collegiality; identifying unconscious gender bias; commitment to reflective and evidence-based practice and citizenship (contributing to the institution/society's ethical and civic purpose). 2.5 Development and monitoring of an evidence-based, reflective professional development learning plan for their context.
Draw from key teaching and learning theories to competently design and manage student-centred teaching and learning sessions. (Chapter 5)	1. Develop an awareness of excellent academic writing skills for communication with students and peers, to foster a level of enquiry commensurate with professionalism 2. Foster engaging communication skills with students, colleagues, peers and the wider community 3. Engage with the scholarship of teaching as it relates to teaching	Domain 3: Professional Communication and Dialogue in Teaching and Learning 3.1 Commitment to ensuring excellence, clarity, coherence, and precision in all forms of communication. 3.2 Development of academic and other forms of writing and enquiry skills to enhance both one's own and students' learning, i.e. academic writing (journal articles, written feedback on student assignments and performance, reports, policy/procedures); general professional communication skills (email, social media), and technical communication skills (curriculum/module descriptions, exam/ assessment instructions, reports and proposals). 3.3 Development of engaging verbal and non-verbal communication (formal and informal) and listening skills required for different situations and

Learning Outcome	Chapter Learning Outcome	National Framework Domains & Elements
	and learning environments, such as the didactic lecture, tutorials, workshops, team teaching, the flipped classroom, storytelling and quizzes	environments (with/to students, with teams, across institutions, with peers and with media, industry, and the public). 3.4 Development of peer, group and team-working skills for the enhancement of teaching, learning and scholarship, e.g. curriculum team discussion, on-line forums/communities on teaching and learning, constructive peer review of teaching/research, team-teaching. 3.5 Commitment to the development of communicative learning communities with peers/colleagues (disciplinary and interdisciplinary). 3.6 Exploration of, and engagement in, dialogue with international and national communities/partners to enhance teaching.
Develop assessments that are transparent, fair and just: assessments of, for, and as learning (Chapter 6)	1. Critically engage with the scholarship of teaching and learning 2. Design student-centred teaching, learning, and assessment approaches 3. Exercise competence in managing learning sessions from lectures to workshops and tutorials 4. Ensure that assessments are constructively aligned with module and programme learning outcomes	Domain 4: Professional Knowledge and Skills in Teaching and Learning 4.1 Relevance and currency of disciplinary/subject knowledge, e.g. through research, literature searches, dialogue with peers, industry/placement experiences, industry projects, professional body memberships, etc. 4.2 Supportive of active student-centred approaches to learning that engage students and build towards students as partners in their learning. 4.3 Design and management of sessions, modules, and/or curricula (programmes), appropriate to the learning environment. 4.4 Development and application of appropriate teaching and learning approaches and specialist skills from one's own discipline and other disciplines that support the development of students' knowledge, their skills of enquiry, and other stated institutional/professional body graduate attributes (e.g. critical thinking, creative, entrepreneurial, responsible, collaborative, etc.). 4.5 Application of appropriately aligned assessment and learner-oriented feedback approaches from one's own discipline and, where relevant, from

Learning Outcome	Chapter Learning Outcome	National Framework Domains & Elements
		other disciplines. 4.6 Knowledge of and application of the theories of how students learn within and across disciplines, and a responsiveness to the needs of diverse cohorts of students. 4.7 Exploration and application of inclusive, innovative, enquiry-based, problem-based, and creative approaches to student learning. 4.8 Knowledge of and contribution to relevant teaching and learning policies and procedures in local, national, and international higher education contexts.
Critically engage in digital pedagogies and promote the use of technology enhanced teaching and learning. (Chapter 7) Design and sustain a teaching portfolio (ePortfolio) to showcase your reflective practice and your teaching, learning and assessment strategies (underpins all chapters)	1. Develop critical awareness of the broad technological landscape in terms of the higher education environment; 2. Enhance scholarship in teaching, learning and communication through the integration of digital tools and resources; 3. Create awareness of the issues relating to identity, data protection, privacy, appropriate behaviour, and the ethics of online learning and how such relate to personal wellbeing and the nurturing of effective digital citizenship.	Domain 5: Personal and Digital Capacity in Teaching and Learning Awareness of the key digital aspects and opportunities on the higher education landscape and adoption of an evidenced-based approach to the application of technology in the design of learning for students (Teach and Learn) 5.2 Application of educational and day-to-day tools and resources to support personal learning, teaching, and scholarship (Tools and Technologies) 5.3 Application of technologies for effective communication and collaboration with student, professional, and social communities (Communication and Collaboration) 5.4 Use of digital tools to create and develop new learning materials, embedding a range of media and interactive resources (Create and Innovate) 5.5 Application of digital search strategies, skills and knowledge of the issues around the sharing and copyrights of digital resources (Find and Use) 5.6 Consideration of personal and other's wellbeing and awareness of the nature of online identity, data and information, and privacy and protection, in ways that are ethical and respectful (Identity & Wellbeing).

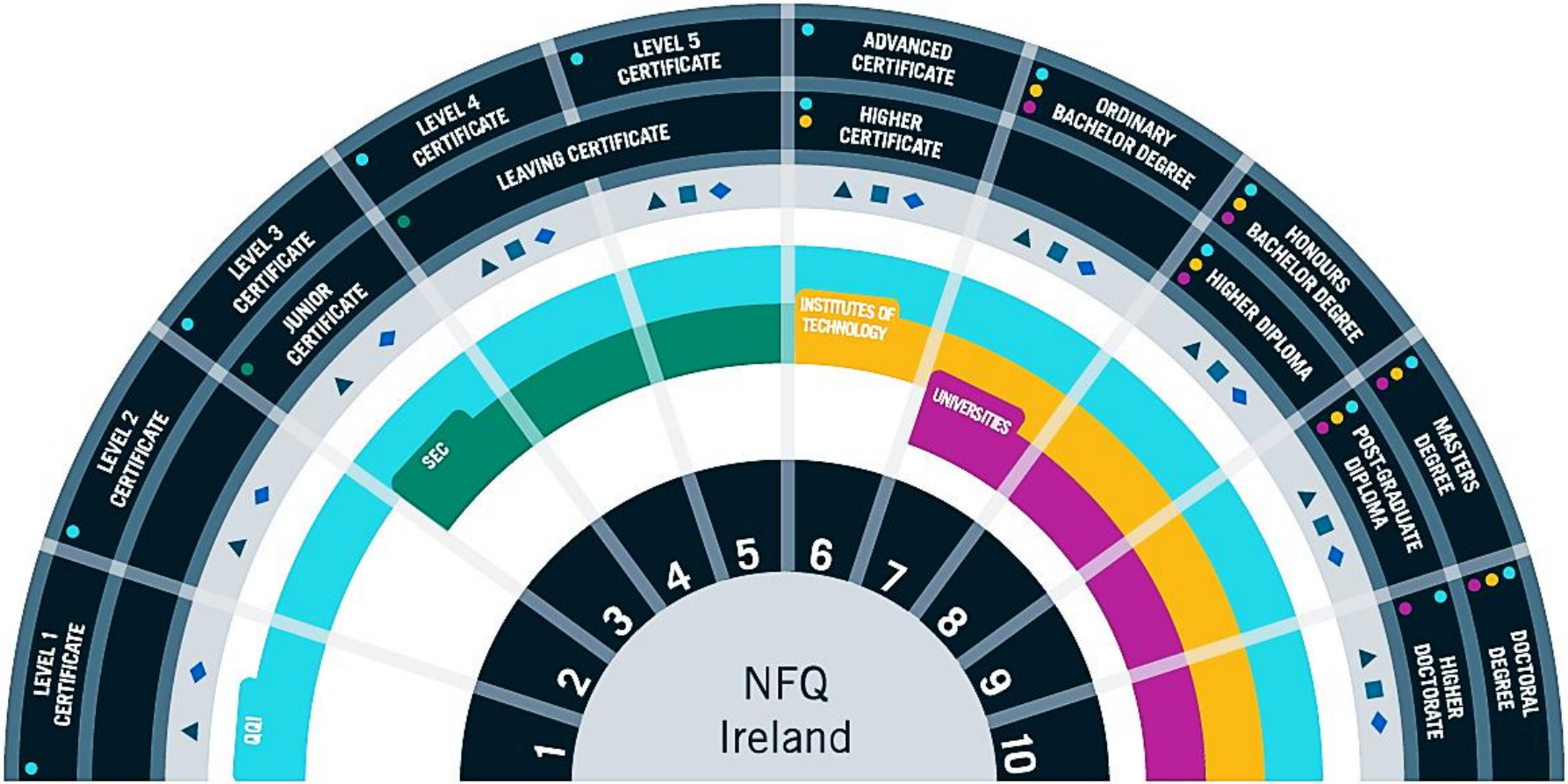

Figure A: NFQ accreditation levels

Source: NFQ website http://www.nfq-qqi.com/index.html

Appendix 2 Solutions to Word Quizzes

Toolkit 2: Governance HEIs

ACCESS	BOLOGNA	ECTS
EHEA	EMPLOYABILITY	MOBILITY
LEARNING	OUTCOMES	MODULE
NATIONAL	FORUM	PROGRAMME
TEACHING		

Toolkit 3: Reflective Practice

ACADEMIC	CHARACTERISTIC	DESIGN
DISCIPLINED	DIVERSITY	ENTHUSIASTIC
EVALUATION	IMAGINATIVE	INNOVATION
KNOWLEDGE	NETWORK	PHILOSOPHY
REFLECTION	RIGOROUS	SELF
STUDENT	SYSTEMATIC	TACIT
UNIVERSAL	VISION	WELLBEING

Toolkit 4:Theories of Teaching, Learning and Learning Style Preferences

ASYNCHRONOUS	CLASSROOM	COLLABORATIVE
CONFERENCES	DECLARATIVE	DIDACTIC
FLIPPED	FORUMS	KNOWLEDGE
LECTURE	MOOC	ONLINE
PBL	PEER	SKILLS
SYNCHRONOUS	TEAM	TUTORIAL
WORKSHOP	WRITING	

Toolkit 6: Digital Capacity in Teaching and Learning

BROADBAND	BULLYING	COLLABORATE
CYBER	DARK	DIGITAL
GLOBAL	IDENTITY	INTERNET
MOODLE	NET	ONLINE
REVOLUTION	SAMR	SECURITY
TECHNOLOGY	TOOLS	VLE
WEB	WIDE	WORLD

Source: All the word search quizzes were created using http://puzzlemaker.discoveryeducation.com/WordSearchSetupForm.asp

Appendix 3. Critical Incident Model: Cellular approach

What was happening?	How did you feel?	What did you do at the time	What did you do afterwards?	What was the result/your learning?
I was giving a one day workshop to 111 students on the subject of Research Methods	I felt that there were so many students in the room, I could not gauge whether they were actively engaged in the learning because of the layout of the room. They were seated at circular tables but there were too many students at some tables and too few at other tables. Some of the students chose to sit at the back of the room. There was no roving microphone so it was difficult for those students at the back of the room to engage in discussions with the larger groups.	I stuck to the timetable, which was a mixture of presentations and activities designed to foster learning through collaboration and active engagement. I asked my colleague who was giving the workshop with me to provide me with feedback. Her feedback was as follows: For the ethics activity, we had an excellent discussion regarding Babbie's article (we allocated more time to it and a shorter amount of time to the lifeboat scenario). The success of this section was down to Teresa's use of 'talking around' the slides as a whole, and drawing from her extensive experience in research. Teresa is adept at sharing, with such a large group, real life examples in a deeply honest and open way, while, at the same time, focusing the group through direct frankness around some weighty issues surrounding ethics.	I wrote a reflective journal entry and sent it to research coordinator and I also surveyed the students to get feedback	To improve student engagement, at the next workshop, I will ensure that students are divided equally at the tables; I will give them fewer activities, as there were too many activities. I will 'flip the classroom' by giving them a smaller number of readings to do beforehand and give them time to discuss the reading and critically summarise it. I will ensure that there is a roving microphone so that the students at the back of the room can participate.

Appendix 4: Self-Evaluation of tutorial

Module: Sociology of Education	**Master of Arts in Teaching and Learning**
Tutor name	Teresa Whitaker
Tutorial date	1 December 2014
Duration listened to	1 hour
Content/topic of study covered in session	Gender, sexual orientation, family status
Students in attendance	16
Strengths/successes	Areas for development (including any training needs or approaches to teaching online that you would like to explore)
I outlined the Learning Outcomes in the first and final slide. I asked questions and gave students plenty of time to answer questions. The tutorial was lively; most of the students engaged either orally or in text messages. There was plenty of discussion and debate. I repeated the points that students made and wrote them on the board. My mic was clear and the sound was good. Overall, I was very happy when I listened back to this tutorial; I thought there was good balance of my speaking and students speaking.	I tried to do a web tour, and it actually came up but I could not see it, so I would like further training on Blackboard Collaborate, on how to connect to a video. There was a lot of echo from students' mics, so I need to switch them off when they are not working. It is good practice to put up any questions before final slide. I forgot to switch off recording at the end. One student was difficult to hear; I should have switched his microphone off sooner, as he was wasting time; other students were finding it hard to hear him also. Perhaps I could have included more or better graphics.

Appendix 4a. Peer Observation of tutorial

<table>
<tr><th>Observer: Dr XXX XXX</th><th colspan="2">Observee: Dr Teresa Whitaker</th></tr>
<tr><td>Programme Title: MATL</td><td colspan="2">Date of observation: 1 December 2014</td></tr>
<tr><td>Module Title: MATL: Sociology of Education and Development Education</td><td colspan="2">Location (if onsite): On-line tutorial</td></tr>
<tr><td>Subject of lesson: Gender, difference and identity (Sexual orientation and family status)</td><td>Session length:
1 hour</td><td>Observation time: 45 minutes</td></tr>
<tr><td colspan="3">Context of activity (first session, pre-exam study, practical, end of module etc.):
This was a tutorial to support an online lesson on the MATL programme</td></tr>
<tr><td>Possible student attendance: 18</td><td>Actual student attendance: 16</td><td>Number late:</td></tr>
<tr><td colspan="3">Intended Outcomes for the session:
Critique importance of gender in education
Debate concepts of masculinity
Assess concepts such as homophobia, and describe the challenges faced by lesbians, gays, and bisexuals in school
Consider stigma, silencing, discrimination, and harassment
Assess challenges faced by children from non-traditional families</td></tr>
<tr><td colspan="3">Summary of observation:
This was a very lively tutorial. Students situated in different corners of the world were skilfully led by the tutor, as they teased out the implications of gender in education. Some of the students had problems with their sound, but they still engaged via notes, and the students were helpful in making troubleshooting suggestions to their colleagues. A video the presenter proposed on the 'pinkification' of girlhood did not work, but the screenshot and the description given by the presenter were probably enough to whet the students' interest, and it is likely that they would have perused it themselves following the tutorial.</td></tr>
</table>

Observer: Dr XXX XXX	**Observee: Dr Teresa Whitaker**
Key strengths: Clarity of diction Presenter very well prepared Engagement of students at an early stage of the session Support materials suggested	Additional Support that would be useful: It probably would have enhanced the tutorial if the Vimeo clip on 'pinkification' of girlhood had worked, but this was outside the control of the presenter.
Evidence of Innovative practice or excellence: Engagement of the students throughout the tutorial.	
Comments of observee, including the degree to which the intended outcomes for the session have been achieved. I was satisfied with how the intended outcomes were achieved in the tutorial. I feel that my last three years of teaching in Hibernia have given me confidence in tutoring; I was happy with how the students engaged with the material and answered the questions that I posed. This tutorial was only my second time using Blackboard Collaborate (BBC), so I was still lacking in confidence about opening a website via 'Web Tourer' (when I listened back to the tutorial I realise that the web page had opened but I couldn't see it on my own screen). I will ask for another tutorial on BBC on using the 'web tourer'. In other tutorials, I have used the 'break out' rooms for small group discussions, but I didn't use that facility in this particular tutorial but will use the facility in the future.	

Appendix 5 Open Educational Resources

The All Ireland Society for Higher Education (AISHE) is an independent, membership-based professional society dedicated to the promotion of good practice in learning and teaching throughout the island of Ireland. It represents the academic community across disciplines and communities of practice and also those who support learning and teaching, in general. AISHE aims to provide a platform for critical dialogue and sustainable engagement in relation to the core concepts underpinning the very fabric of the Higher Education Community throughout the island of Ireland. Established in 2000, AISHE promotes the development and dissemination of good and innovative practice in our flagship online journal, *The All Ireland Journal of Teaching and Learning in Higher Education*' (http://www.aishe.org).

NFETL has developed a wealth of resources for teaching, learning, and assessment in HEIs.

- Publications http://www.teachingandlearning.ie/forum-resources/national-forum-publications/
- Resources http://www.teachingandlearning.ie/national-forum-funded-resources/

Education Developers in Ireland Network EDIN

The mission of EDIN http://www.edin.ie is to support, enhance, and influence the field of academic development and practice. We achieve this by informing policy and practice in teaching and learning in Higher Education, and by collaborating in research and dissemination of resources. EDIN values creative, critical, collaborative, and professional approaches in supporting teaching and learning: http://www.edin.ie/publications.php

Learning Innovation Network

This website provides resources that are very valuable for students making the transition to further and higher education, and for parents, guidance counsellors, educators, and support staff. The Student Led Learning special interest group developed the resources**.** http://www.lin.ie/sll/

Digital Scholarship Open Educational Resources for Digital Scholars

This website has an impressive amount of resources http://www.digitalscholarship.ac.uk

Learning topics

- Developing Digital Literacies
- Using Multimedia Creatively for Learning
- Learning Collaboratively Online
- Referencing and Avoiding Plagiarism
- Finding Information Online
- Learning with Social Media
- Ethics, Rights and Intellectual Property

All Aboard Report http://allaboardhe.org/DSFramework2015.pdf

Towards a National Digital Skills Framework for Irish Higher Education (2016). All Aboard! Enabling & Empowering Staff & Students to Flourish in the Digital Age. Available at www.allaboardhe.org accessed 25th March 2017.

The **Teaching Council** provides a list of online research open access at http://www.teachingcouncil.ie/en/Research/Access-to-Online-Research-Open-Access/

Directory of Open Access Journals - DOAJ is an online directory that indexes and provides access to quality open access, peer-reviewed journals.

E**RIC Institute of Education Services** - ERIC is an online library of education research and information, sponsored by the *Institute of Education* Sciences (IES) of the U.S. Department of Education.

OAPEN Library - The OAPEN Library contains freely accessible academic books, mainly in the area of humanities and social science.

Open Book Publishers - OBP publish high quality, *open* access academic research in the Humanities and Social Sciences.

Springer Open - Springer Open offers researchers from all areas of science, technology, medicine, the humanities, and social sciences a place to publish open access in journals and books.

Wiley Open - Wiley Open Access is a programme of fully open access journals.

DORAS – Open access institutional repository providing free online access to research publications and theses from Dublin City University.

CORA – The Cork Open Research Archive gives you free open access to University College Cork's scholarly and scientific research publications and theses.

ARROW - The repository is a service of the Dublin Institute of Technology Library Services.

NCSE – Information on research and policy publications in the field of special education on the island of Ireland since 2000, from the National Council of Special Education.

ARAN - ARAN is the digital collection of open access scholarly publications from NUI Galway. ARAN collects, preserves, and makes freely available scholarly communication, including peer-reviewed articles, working papers, and conference papers created by NUI Galway researchers.

TARA - TARA is an open access repository from Trinity College Dublin.

RIAN – An expansive portal to Irish research, including an aggregation of content from a number of institutional repositories e.g. University of Limerick, NUI Maynooth, Higher Education Authority etc.

Figure B. All Aboard Mapping Digital Skills in Irish Higher Education

Source: All Aboard (2015)

Appendix 6: Reflective Journal extracts

Reflection 1

I'm committed to my professional development and to that of my students. I have created a research methods module and I'm trying to enhance my own teaching and my students learning. The assessment for the module is a research proposal. My module is delivered online and students give feedback and answer questions on a forum. I have created a separate forum thread for my personal reflections. One of the challenges I have found in the past is that students do not contribute to the forum on research methods, they write weak research proposals and the methods section of their final dissertations is weak. I have just been reflecting on this with my colleague/critical friend who is the research co-ordinator. She is finding that the students are not critically reflecting on their research, when they conduct qualitative research they are not asking deep and probing questions but instead are often leading their respondent to a conclusion. I want to learn from my own experience but I'm also collaborating with my students and colleagues to improve my teaching and my students learning.

Reflection 7

Prior to the tutorial, I sent students an exemplar of a research proposal, having received permission from the student in question to use it as an exemplar. I asked students to explore and critically reflect at the strengths and weaknesses of the proposal and asked them to grade it. I was really happy to see that students critiqued the proposal in a scholarly way; they made comments about the title, the level of academic language and scholarly expression. They believed it was clear and easy to understand. The standard of English was good, and the writer had just one thought in each sentence. The proposal was written in the first person; this issue was discussed – whether to use the active or passive voice, for example, 'I use qualitative methods' or 'qualitative methods were used'. On reflection, I believe it was a good tutorial. There was active participation from the students. I tried to let them speak rather than teaching them or 'lecturing' them. After the last tutorial, a student contacted me to put a separate thread on the Forum for CA2. I have done this.

Reflections on Week 8

This week I sent two action research projects and also Jean McNiff's book to the students. I invited a former graduate (pseudonym Ann) to discuss her research in the tutorial. Ann provided a very good, practical overview of the research and also gave the students some very good advice, such as to buy a journal or notebook with a luminous cover so that it will be easy to find and write up observations and reflections on a daily basis. This is good advice for all students: keep a journal as you go through your research journey, as it will make it

easier to write up the methods section afterwards. Ann also developed a very good method for keeping track of her literature review by numbering the themes. She also used the referencing system in Microsoft word but had to make changes to it afterwards. The advantage of using an automatic referencing system is that you cannot lose references but you may have to adjust the references at the end so that they are in compliance with the Harvard reference system. Ann pointed out that she finished the first draft of her research in September, before she went back to school; this gave her plenty of time to polish up the final document before she submitted it in late October.

Afterwards, I was also very happy with the questions on the forum such as: What is the word count for each section of the proposal? Also, can I change my methods after I have submitted my proposal?

Appendix 7 Lesson Plan

Lesson plan Hibernia tutorial Session 1 - Time for lesson – 1 hour

Time	Topic	The Philosophy of Research Methodologies. Quantitative & Qualitative Methods
0 -0.03	Brief Feedback on Forum Interaction	Check in with forum leader nominated in the last session on forum feedback as well as experience of the process. Nominate another forum leader for this week's session.
0.03 - 0:05	Overview of second session & Tutorial Learning Outcomes	In this session, learners were introduced to the philosophies that underpin research methodology, namely, logical positivism, and interpretivism. These two philosophies are associated with two distinct types of data collection methods, namely, quantitative and qualitative methods. Students learnt about critical Issues to do with obtaining samples in quantitative and qualitative methods. The popular approach of mixing qualitative and quantitative methods was examined. Observations are an important aspect of teachers' everyday practices; this constitutes an ethnographic approach and using observations as a data collection method were explored. Other research paradigms such as emancipatory research and feminist research were then presented.
0:05– 0.07	Tutorial learning Outcomes	On completion of this tutorial, learners will be able to: • Discuss the philosophies that underpin quantitative and qualitative research • Determine what is the most appropriate sample for quantitative and qualitative research • List advantages of mixing methods • Describe ethnographic research and how to conduct ethnographic field work • Discuss critiques of research from feminists and those who conduct emancipatory research
0.07 – 0.12	Break out rooms	Discuss the main differences between qualitative and quantitative methods Appoint one member of your group to report back to the main group 5 minute exercise
0.12– 0.17	Group discussion	Let the class come up with their own ideas on the differences between Quantitative & Qualitative research. Then, go through slides 8-10,

Time	Topic	The Philosophy of Research Methodologies. Quantitative & Qualitative Methods
	(5 min)	Discuss differences - methodology - the way or manner in which we conduct our research. Quantitative Methods - Measurements and counts, amount of something, collection of numerical data, sorting and counting of quantitative data, statistical analysis, measuring relationships between variables. Qualitative Methods – quality, essence - what, why, when, how of things; more dependent on researcher, subjective interpretations, meaning, perceptions, concepts, contexts, Both approaches are highly respected.
0:17- 0:25	Class Discussion Sampling Issues Slide 11	Elicit from group, their understandings of the questions, then check for understanding that: Quantitative - probability and non-probability samples - descriptive and inferential research. Qualitative methods - purposive, targeted, convenience or snowball samples can be used.
0.25- 0.30 0.30- 0.35	Whole group discussion Ethnography & Observation Slide 12	To appraise ethnography and participant observation: In their everyday practices, teachers are constantly using observations to enhance and improve their teaching practices – do you agree and in what ways? (5 min) Discuss classic study Learning to Labour – Paul Willis – how working class lads get working class jobs Ask group in what ways do you think he researched 12 working class males students, aka ‘the lads’ who saw themselves as a subculture and who saw school as irrelevant to the ‘real world’ of male manual work? - Ethnographical research through sets of interviews and observations in the school.
0.35 – 0.40	Slide 12 & 13 Take a poll to see if they will use quantitative methods	Discuss
0.40- 0.45	Combining quant & qual	Elicit from group ideas on the eleven ways quantitative and qualitative can be combined. Discuss eleven ways to combine quant and qualitative – from Blaxter, L. (2012) How to research, (4th Edition),

Time	Topic	The Philosophy of Research Methodologies. Quantitative & Qualitative Methods
	Slide 16	Berkshire: Open University Press, p. 206 – Eleven ways to combine qualitative and quantitative research Logic of triangulation. Blaxter, L. (2019). *How To Research* (4th Edition). Berkshire, GBR: McGraw-Hill Professional Publishing, 2010, p 206.
0.45- 0.50	Research Questions	Ask group what methods they would use to conduct research on the following topics: • What is the impact of the DEIS programme on students' achievements in underprivileged areas? • What are the difficulties faced by teenagers with Asperger's, in making friends? • What are the experiences of children from the Travelling Community of secondary schools? • Does repeating a year improve students' results?
0.50- 0.52	Criticisms of qualitative research Slide 18	Emancipatory and feminist research paradigms – traditional qualitative methods were critiqued by feminist researchers who argued that we live in patriarchal societies and that women's contributions to society were often overlooked – in history, women are often invisible -feminist research should make women's lives visible. Emancipatory research also questions power relationships in society and argues that research should be used to emancipate the oppressed.
0.52- 0.55	Reference Rule	Do not use bullet points in the reference list at the end! The heading References refers to all references in your essay – the term Bibliography describes all the publications that we may have consulted when writing an essay, not necessarily the ones used in the writing of the essay. In Hibernia College, just use the term 'References' at the end of the essay.
0:55 - 00	Plenary	Any questions/comments: Another check on where people are at Nominate forum initiator, Engage with the forum, email any concerns