An Exploration of Student and Staff Experiences of Assessment, Feedback, and Academic Integrity across three programmes in a Technological University.

By

G00332806

A thesis submitted in
fulfilment of the requirements for the
Master of Education programme
in the Atlantic Technological University

Research Advisory Panel

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Date of Submission:

26/09/2024

DECLARATION OF ORIGINALITY

I declare that the material is entirely my own work and that all the sources have been acknowledged. This material has not been submitted for any other academic assessment other than the partial fulfilment of the above work.

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ABSTRACT

Assessment, feedback, and academic integrity are key components of Higher Education (HE), each is crucial in shaping educational outcomes and enhancing the quality of the learning process. These three components are complex and interconnected, each contributing significantly to the educational experiences of students and staff. Therefore, HE institutions need to prioritise these components and ensure that they are effectively implemented to promote a well-rounded teaching and learning environment.

The main aim of this research study is to explore the experiences of students and staff in terms of assessment, feedback, and academic integrity across three programmes in a Technological University. The study employs a case study framework and uses a mixed methods approach to data collection. The methods used include a desk analysis, student and staff questionnaires, student focus groups, and academic staff interviews to investigate the experiences of both cohorts.

Following the analysis of the quantitative data a Reflexive Thematic Analysis (RTA) approach was utilised to analyse the findings from the qualitative data. The themes that were identified from the analysis were timing issues, industry-based assessments (authentic assessment), utilising feedback, enablers of success, and understanding of academic integrity. The findings from this study indicate that there is a need for a more holistic approach to assessment scheduling and timing of feedback. Furthermore, there seems to be a lack of a shared understanding among students and staff in relation to the meaning of academic integrity. This research study provides informed recommendations to address these challenges.

KEYWORDS: assessment, feedback, academic integrity, higher education

DEDICATION

To Mom, Dad, my sisters and Darragh.

Thank you for your love and support throughout this process.

I am forever grateful.

ACKNOWLEDGEMENTS

Firstly, I would like to begin by expressing my deepest gratitude to my supervisors Dr. Carina Ginty, Dr. Mary McGrath, and Dr. Kevin Cunningham. Thank you for your profound support, guidance, patience, encouragement, and for generously sharing your extensive knowledge and expertise throughout this study. I will be forever grateful for the privilege of having each of you as part of my supervisory team. I look forward to continuing to work and collaborate with you all in the future.

I would also like to thank the Department of Creative Education in the School of Design and Creative Arts and the Teaching and Learning Centre in ATU for their support of this study. To my colleagues in the Teaching and Learning Centre in Galway thank you for your encouragement and good humour, which has been uplifting during this process.

I want to extend my utmost appreciation to the students and staff who participated in this study, in particular the programme leads. Without you all this study could not have taken place. Thank you for volunteering your time, being open to sharing your experiences and for truly engaging with this study.

To my parents, Breeda and Martin, and my sisters Joany, Laura, Clodagh, Shauna, and Katie. I want to thank you for your patience, acts of kindness and unwavering support throughout this process. You truly helped to keep my spirits high and provided encouragement when needed the most. Thank you to my nanny Phyllis for always believing in me. Thank you to all my friends for being a great support system, a special thank you to Sinead for providing many laughs in times when distraction was most needed and for being a great friend. To my partner Darragh, you have shown me so much kindness, patience and shared many words of wisdom. I am forever grateful to you; you are my number one supporter, and you have believed in me every step of the way.

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ABBREVIATIONS

AaL	Assessment as Learning
AfL	Assessment for Learning
AHE	Assessment in Higher Education
AI	Artificial Intelligence
AoL	Assessment of Learning
ATU	Atlantic Technological University
CA	Constructive Alignment
ChatGPT	Chat Generative Pre-Trained Transformer
EAT	Evans Assessment Tool
ENAI	European Network for Academic Integrity
HE	Higher Education
ICAI	International Centre for Academic Integrity
LO	Learning Outcomes
NF	National Forum for the Enhancement of Teaching and Learning
QQI	Quality and Qualifications Ireland
RTA	Reflexive Thematic Analysis
SATLE	Strategic Alignment of Teaching and Learning Enhancement
SCL	Student-Centred Learning
VLE	Virtual Learning Environment

Chapter 1: Introduction

Introduction

This research study explores the experiences of students and staff with assessment, feedback, and academic integrity in Higher Education (HE). The study consists of three programmes from within a Technological University, which is outlined in section 1.2.2. The overarching goal is to thoroughly explore the experiences of both cohorts to gain a deeper understanding of the strengths and challenges associated with each of the three areas. The aim, objectives, and research questions are presented in section 1.1.

Assessment, feedback, and academic integrity are key components that shape the educational experiences of both students and academic staff in HE. Assessment is a crucial component in HE, not only for evaluating student learning but also for guiding and improving both teaching and learning (Boud & Falchikov, 2007; Boud, 2021). Differing theories are discussed in academic literature surrounding the multiple functions and purposes of assessment (Newton, 2007; Carless, 2014; Archer, 2017 & The National Forum, 2017). When designing assessments, academic staff must navigate various constraints arising from individual, departmental, and institutional circumstances, requiring them to balance multiple demands across a diverse range of factors (Macdonald & Joughin, 2009; Meyer, et al., 2010; Price, et al., 2011; Bearman, et al., 2017).

Some authors consider feedback to be one of the most powerful influences on student achievement (Hattie and Timperley, 2007; Evans, 2013). However, there are often challenges associated with feedback such as student dissatisfaction with feedback practices (Evans, 2013; Winstone et al., 2017a; Carless and Winstone, 2020) and the evolving nature of feedback (Evans, 2013; Henderson et al., 2019). Academic integrity is a foundational principle in HE, ensuring an ethical and honest approach to learning and education. However, arguments in the literature highlight that a lack of a universal definition of the term may be problematic (Macfarlane et al., 2012; Eaton, 2023). Concerns surrounding academic integrity have become the vocal point of academic literature and conferences in recent years with the

emergence of generative artificial intelligence (AI) such as ChatGPT. Many academic staff are expressing their concern about their assessment design in preventing academic misconduct (Sullivan et al., 2023).

This chapter presents the aim, objectives, and research questions for this research study. In addition, the context and background of this study are discussed. The final section outlines the structure of this thesis.

1.1 Research Study Aim and Objectives

The main aim of this research study is to comprehensively explore the experiences of both students and staff in terms of assessment, feedback, and academic integrity across three programmes in a Technological University.

The main objectives of the study are:

1. To identify what assessment methods and feedback practices are used by staff in the programmes involved in the study.
2. To explore students' experiences with the assessment and feedback and identify what are their preferred methods.
3. To investigate the understanding, awareness, and challenges of academic integrity for both students and staff.
4. To provide informed recommendations for the improvement of assessment, feedback, and academic integrity based on the findings from the study.

1.1.1 Research Questions

The objectives outlined in Section 1.1 are designed to explore each of the research questions listed below. The data collection and the analysis of the findings in this study are reported separately for the two cohorts' students and staff. The research questions are:

1. What are the assessment methods and feedback practices currently being used by academic staff and why do they use these?
2. What are the experiences of students with different methods of assessment methods and feedback practices and what are their preferred methods?

3. What challenges arise in relation to academic integrity when developing assessment practices and how can these be mitigated?
4. How can the findings from this research study be used to overcome challenges faced in terms of assessment?

The following section gives an overview of the context and background of the study. It presents how the Atlantic Technological University (ATU) was formed and how this research study began.

1.2 Context and Background

This section presents the context and background for this study. It begins by discussing the formation of the Technological University and in particular the Atlantic Technological University (ATU). The second area discussed in this section gives details of how this research study was formed.

1.2.1 Formation of the Atlantic Technological University

The establishment of Technological Universities (TUs) in Ireland marks a significant change in HE in Ireland. This formation of TUs began with the passing of the Technological Universities Act 2018 providing a framework for creating institutions that could offer a broader range of programmes and engage more effectively with industry and community partners (Higher Education Authority (HEA), 2018). The act aims to address regional disparities in HE provisions and support regional economic development.

Atlantic Technological University (ATU) was officially established in April 2022. ATU is the merging of what were previously three institutes of technology: Galway-Mayo Institute of Technology (GMIT), Institute of Technology Sligo (IT Sligo), and Letterkenny Institute of Technology (LYIT). This multi-campus university spans the west and northwest of Ireland, aiming to boost educational access and regional development (HEA, 2024). ATU comprises of nine campuses spread across counties Galway, Mayo, and Sligo. ATU has over 23,000 students, 2250 members of staff, and offers over 600 programmes of study making it one of the largest universities in Ireland. (Atlantic Technological University, 2022)

1.2.2 Research Study Background

This study originated from a collaborative project between GMIT, IT Sligo, and LYIT, which at the time of commencement was known as the Connacht Ulster Alliance prior to becoming ATU. This project was titled ‘Reimagining Assessment and Feedback for Student Success’ and it was co-led by the heads of teaching and learning from the three institutes.

The Re-imagining Assessment and Feedback for Student Success project, funded by the National Forum for the Enhancement of Teaching and Learning in Ireland (NF) through the SATLE initiative, began in June 2021. The academic year 2021-2022 is considered Phase One of this project. During this phase, the project team worked alongside three programmes (one from each institute) to explore the students’ experience with assessment and feedback, and to work with academic staff to re-imagine their own assessment and feedback practices. The second phase of the project took place during the academic year 2022-2023, and this is when this research study took place. Similar to Phase One this study focused on student and staff experience with assessment and feedback, and the area of academic integrity was investigated.

Table 1 shows the programmes that participated in this study, including their mode of delivery, ATU campus, and number of students and staff during the academic year 2022-2023. Throughout this document, the programmes will be referred to as programmes one, two, and three.

Table 1.

Information of the Three Programmes Involved in the Study.

Programme Name	Delivery Type	Mode of Delivery	Duration	Number of Students Registered	Number of Staff
BSc Quality for Industry	Blended	Part-time	2 years	18	8
BSc in Occupational Safety and Health	Face-to-face	Full time	4 years	118	17
BSc Construction Contract Management	Blended	Part-time	1 year	15	7

Table 1 provides the details of the programmes that participated in this research study. All three programmes are Bachelor of Science degrees, but each focus on different areas. Each of the programmes is also located on different campuses within ATU.

1.3 Rationale for Research

This research study is unique in terms of the dual focus with both the student and staff experience. In academic literature often these individual cohorts are explored in isolation. For this study, it was important to explore both to get a holistic view of the overall experiences with assessment, feedback, and academic integrity in each of the programmes.

An objective of this study is to provide informed recommendations. These recommendations are not only relevant to the three programmes who were directly involved in the study. The are valuable to the entire HE sector. The recommendations are informed by lived experiences of students and staff, and aim to help with improving assessment, feedback, and academic integrity in HE.

1.4 Thesis Structure

This thesis is made up of six chapters. The first chapter introduced the research study and gave information regarding the background of the study. Chapter 2 presents the literature analysis in relation to the study. The analysis focuses on academic research studies, articles, and academic literature from three main areas: assessment, feedback, and academic integrity. Under each of these sections, literature is explored on a range of related topics.

The research methodology is discussed in Chapter 3. This chapter describes the research methods, the literature surrounding these methods, and the research framework chosen with justifications. The data analysis methods are also outlined. Chapter 4 presents the findings from the data analysis under two general headings: student and staff experiences. Under each section, the data is presented for their experiences with assessment, feedback, and academic integrity. Chapter 5 presents the discussion section of this thesis, in this chapter, the findings are discussed under five sections and are linked with relevant academic literature. Finally, Chapter 6 concludes this thesis, with a focus on the objectives, scope and limitations, recommendations, and concluding remarks.

Chapter 2: Literature Analysis

Introduction

This chapter reviews and discusses some of the critical academic literature on the topics of assessment, feedback, and academic integrity in HE. Each topic begins with a section discussing how the terms are defined in the literature, providing multiple definitions from various academic scholars. The purpose of this is to provide an overview of how these terms can be similar or differing in definition. Following the definition section, the literature around assessment, feedback, and academic integrity is further broken down and presented under various headings. The literature is presented in the following sections: 2.1 Assessment, 2.2 Feedback, and 2.3 Academic Integrity. The final section, 2.4, provides a summary of the entire chapter.

2.1 Assessment in Higher Education

Assessment is crucial in HE, not only to evaluate learning but also for guiding and improving both teaching and learning (Boud & Falchikov, 2007; Boud, 2021). The following sections explore the academic literature surrounding defining assessment in HE, the purpose of assessment, designing assessment, and authentic assessment.

2.1.1 Defining Assessment in Higher Education

Assessment in HE is a multifaceted concept encompassing various methods and practices aimed at evaluating student learning, skills, and competencies (Bloxham & Boyd, 2007; Brown & Knight, 2012). This section will explore several definitions of assessment from academic literature and present my understanding of what assessment entails.

Price et al. (2011) describe assessment in HE as ‘complex’ and that managing assessment demands an integrated approach as well as one that takes account of the context in which assessment takes place. Effective assessment can enhance learning; for instance, frequent testing and detailed feedback can lead to higher levels of achievement (Wiliam, 2011). Taras (2005) views assessment as a continuous process involving the active engagement of both students and academic staff, fostering an environment where feedback

promotes growth and improvement. Similarly, Boud and Falchikov (2006) argue that assessment should be a strategic component of education, designed to inform instructional practices and foster students' long-term learning capabilities and self-regulation skills.

The Quality and Qualifications Ireland (QQI) defines assessment as judging learner performance against predefined standards, including both graded and non-graded tasks undertaken as part of formal study programmes. The goal is to evaluate a learner's knowledge, skills, and competencies using appropriate evidence, ensuring reliability and validity (QQI, 2022). Similarly, Bearman et al. (2016) describe university assessment as "the graded and non-graded tasks undertaken by an enrolled student as part of their formal study, where the learner's performance is judged by others" (p. 5). Both definitions emphasise the dual nature of assessment, incorporating formal graded activities and informal ungraded tasks designed to monitor student progress.

The complexity of assessment necessitates meeting the demands of multiple audiences for various purposes (Brown & Knight, 2012). Bearman et al. (2016) note that while much literature discusses innovative and best practices in assessment, there is less focus on how educators can incorporate these into their own practices. Price et al. (2011) previously discussed the multifaceted nature of designing assessments, highlighting the necessity for skills in design, student support, communication, and clarification. They argue that each element of assessment design needs to be considered in an integrated manner to avoid negative impacts on the overall process. The literature surrounding assessment design will be discussed further in Section 2.1.3.

The multifaceted nature of assessment is also discussed by Wiliam (2011), who states that assessment has the potential to enhance learning under the right conditions. For instance, frequent testing and detailed feedback can lead to higher levels of achievement. This highlights the need for carefully designed assessment practices that support student learning and development. As Boud (1995) states, "Students can, with difficulty, escape from the effects of poor teaching, they cannot (by definition if they want to graduate) escape the effects

of poor assessment" (p. 35). This highlights the impact of assessment on student learning outcomes (LO) and the critical importance of ensuring high-quality assessment practices.

From the analysis of the literature exploring the different definitions of assessment in HE, some key concepts discovered are that assessment serves many purposes such as for certification, measuring the quality of LOs, and informing instructional practice. In addition, assessment is a continuous process that can be both summative and formative. Inspired by the emphasis on assessment as a critical component of the educational process that measures academic performance while enhancing learning and teaching and learning practices (Boud & Falchikov, 2007; Boud, 2021), my definition of assessment in HE is as follows: “Assessment in higher education evaluates student achievement and fosters continuous learning improvement through an integrated approach that combines summative and formative methods, ensuring both academic standards and the enhancement of instructional practice”.

In summary, assessment in HE is described as a complex and multifaceted process that serves multiple purposes, including measuring student performance, providing formative feedback, and informing instructional practices. Section 2.1.2 explores the academic literature about the purpose of assessment in HE.

2.1.2 Purpose of Assessment in Higher Education

From my analysis of the literature, the purpose of assessment is explored in many ways, and it is evident that assessment in HE plays several roles. Carless (2014) discusses three main functions of assessment to support learning, to judge the quality of student achievement, and to meet accountability demands. He promotes a balanced approach by highlighting the practical roles of assessment in creating a well-rounded educational experience. Similarly, Archer (2017) highlights the importance of balance in assessments. This paper introduces the “Assessment Purposes Triangle” adapted from Newton (2007), which includes three primary purposes of assessment: being supplementary to learning, for accountability purposes, and for certification and progress checking. Archer (2017) argues

that there needs to be equal attention given to each area as focusing solely on one area can have negative effects on the learning process. The NF (2017) offers a more detailed view, outlining specific purposes such as demonstrating learning achievements, offering timely and actionable feedback to improve teaching and learning, and empowering students to self-regulate and critically evaluate their learning throughout their lives. These authors offer a comprehensive view of the multiple purposes of assessment in HE

In HE, the terms summative and formative assessments are essential for understanding the multiple purposes of assessment. Summative assessment provides ways of obtaining evidence of student achievement (Black & Wiliam, 2009). Summative assessment is an evaluative approach used to measure students' overall knowledge and performance at the end of an instructional period. Its primary purpose is to assign grades or scores that reflect the extent to which students have achieved the intended LO's. These assessment activities are considered high-stakes (Newton, 2007), an example of this assessment activity is an end-of-semester examination. Furthermore, Sambell et al. (2013) state the main purpose of summative assessment is to "sum up what each individual achieves and provide this information in a way that is suitable for use beyond the programme" (p.3).

Formative assessment, on the other hand, is the process of identifying where learners are within a scale of learning, where they are going, and how they will get there (Morris et al., 2021). Furthermore, Bennett (2011) describes formative assessment as the strategy used in education to evaluate student comprehension and learning needs, continuously throughout the learning process. Bennett (2011) also indicates that there is not a universally accepted definition of formative assessment and argues that this lack of standardisation makes it problematic. He believes formative assessment should be part of a broader and integrated education system and testing for accountability should be in line with formative assessment practices, where teaching, learning and assessment are intertwined rather than being separate entities.

Newton (2007) discusses the way assessments are categorised, and the potential inaccuracies and misconceptions exhibited from these categories. He argues that the difference should not be based solely on when the assessment takes place, but rather on its purpose and use. Newton (2007) also highlights that the same assessment can serve both purposes. For example, a final exam can be used to grade students (summative) and to improve future teaching strategies based on the results (formative). This flexible approach suggests that assessments can play multiple roles to support both teaching and learning (Newton, 2007; Ifenthaler et al., 2012; Harlen, 2012).

Assessment must test students' achievement, accredit their learning, and provide evidence to satisfy measures of quality (Price et al., 2011). Yan and Boud (2021), state that the fundamental reason for assessments is for making judgements about students' learning based on evidence. Alternatively, Dial (2016) discusses the goal of assessment being to drive instructional choices by gathering data that can inform teaching practices and enhance students LO's.

Taras (2002) argues that current assessment practices need innovative changes to effectively support students' independent and lifelong learning. The author criticises the focus on grades in education, stating that it can negatively affect student learning by shifting attention away from learning. Similarly, Dawson et al. (2013), argue that basing judgement on the individual mark or feedback should be the least important factor affecting the assessment process. Sambell et al. (2019) further discuss that the purpose of assessments is not to simply give out grades but to actively encourage more efficient learning, foster a deep level of student engagement, and oversee and secure the integrity of the academic processes.

Assessment strategies should balance complex and interdependent purposes including accreditation and showcasing achievements, assessment activities should focus on the process of learning and discourage mechanical approaches to studying (Price et al., 2011; Bearman et al., 2016). Assessment should motivate and challenge the learner, as well as test their achievement and learning (Price et al., 2011). Furthermore, Suskie (2018) highlights that

one of the key purposes of education is to help students develop transferrable skills, attitudes, and dispositions.

In HE, students often experience a testing culture, involving many summative assessments with teaching and learning often oriented towards these tests (Jessop & Tomas, 2016; Baartman & Quinlan, 2023). Elkington (2020) discusses how this emphasises Assessment of Learning (AoL), whereby assessment is viewed only as a means to assure and demonstrate academic standards. The following section presents the terms assessment of, for and as learning, which are prominent terms used in academic literature to discuss the purposes of assessment in HE.

2.1.2.1 Assessment OF, FOR and AS Learning.

When reviewing the literature surrounding assessment practices in HE the terms Assessment of, for and as learning continually appear. These terms refer to the purpose of an assessment activity and the nature of evaluating students' understanding and progress. This section expands on the purpose of assessment in HE, which was briefly discussed in section 2.1.2.

Assessment of learning (AoL) is used to confirm what students know and can do, to demonstrate whether they have achieved the LOs or the aims of their programme of study. It often influences critical decisions that impact students' future paths. Therefore, the credibility and defensibility of the underlying logic and measurement in AoL are crucial (Earl and Katz, 2006). The term also focuses on a numerical aspect and is often associated with a number or letter grade (National Forum, 2017). AoL is often linked with summative assessment, as the primary purpose is to assure and demonstrate that academic standards are met for accreditation (Elkington, 2020), as discussed in section 2.1.2.

On the other hand, assessment for learning (AfL) is an ongoing process embedded within the learning process, aiming to reveal each student’s comprehension for academic staff to guide them in how to help with student progression (Earl and Katz, 2006). Sambell et al. (2013) describe AfL as encompassing both summative and formative assessment (section 2.1.2),

and that the underlying principle is that all assessments should help students learn and achieve success. Additionally, AfL is sometimes used in a fragmented way, with the focus being on one or two elements. Therefore, Sambell et al. (2013) have developed six principles for a holistic approach to AfL, these principles are:

1. Authentic assessment,
2. Balancing summative and formative assessment,
3. Create opportunities for practice and rehearsal,
4. Design formal feedback to improve learning,
5. Design opportunities for informal feedback,
6. Develop students as self-assessors and lifelong learners.

These principles aim to act as a framework that can be used by academic staff when designing assessments to promote student learning, and the use of AfL in a holistic way (Sambell et al., 2013).

In the context of Assessment as Learning (AaL), Dann (2002) argues that assessment should be more than just a supplement to teaching and learning, it should be an integral part of the learning process itself. AaL involves students actively in their assessment, making it a key part of their learning experience. This approach positions assessment as a process where students engage in self-reflection and self-regulation to enhance their understanding and promote deeper learning (Dann, 2002; Dann 2014). Originally, this idea was labelled under the same category as AfL, however some authors now separate the two (Earl & Katz, 2006; National Forum, 2017). The reason for this separation is to include the idea of empowering students to evaluate their learning. Nicol and Macfarlane-Dick (2006) highlight the importance of students' self-regulation within feedback processes, aligning with the broader concept of assessment as an ongoing learning process (Carless & Boud, 2018).

Some authors have argued for the traditional assessment criteria to be rebalanced. Suggesting a reduction to the weighting given to AoL and putting greater emphasis on AaL and AfL, giving students a more central role in the process of assessment (Earl & Katz, 2006;

Sadler, 2010; National Forum, 2016). This active participation from students in AaL is essential for fostering a cultural shift towards this assessment approach (Sadler, 2010; Carless, 2015; National Forum, 2016). This shift is supported by other authors who state that there should be a shift towards AfL and AaL, where assessments are created to support student learning, achievement, progress, engagement, and confidence building (Jonsson & Panadero, 2018; Brown, 2019).

This section focused on the multifaced and complex nature of the various purposes of assessment in HE. The following section explores the literature surrounding designing assessment including differing views and frameworks.

2.1.3 Designing Assessment

Academic staff develop assessments within constraints of individual, departmental, and institutional circumstances, balancing multiple tensions across a diverse range of factors (Macdonald & Joughin, 2009; Meyer, et al., 2010; Price, et al., 2011; Bearman, et al., 2017). Price et al (2011), describe the practice of designing assessments as being multifaceted, stating that assessment requires a range of skills such as design, student support, communication, and clarification. Although each element needs to be considered when developing an assessment, isolating and focusing on any of the elements individually could have negative effects on the entire assessment process (Price et al., 2011). Yan and Yang (2021) state that “assessment can contribute to learning, or it can hinder it depending on how the assessment is designed and implemented in a particular learning environment” (p.1). Beaman et al. (2016) discuss that assessment design decision-making is often made at various stages of the lifespan of a programme, such as at the policy level, during assessment design and day-to-day judgements on students' work. The authors highlight that each of these influence each other.

Furthermore, Bearman et al. (2016) discussed the struggles commonly faced by academic staff in designing and implementing assessment practices in HE. In response to this, a framework was developed named the "Assessment Design Decisions Framework". The

aim behind the development of this framework is to provide academic staff with a resource to assist in making informed decisions about assessment designs to promote effective learning by identifying key considerations for each area.

This framework is composed of six major categories that should be considered when deciding on an assessment design. The six categories are purposes, contexts, tasks, interactions, feedback processes, and LOs (Figure 1).

Figure 1.

Assessment Design Decisions Framework (Bearman et al., 2016).

(Bearman et al., 2016).

The framework clearly illustrates the complicated nature of designing assessments and puts emphasis on the significance of considering the various contextual factors that can influence assessment design and implementation (Bearman et al., 2016).

Another example of a framework which was developed around assessment design is the Evans Assessment Tool (EAT) framework (Evans, 2013). This framework is based on three key dimensions: Assessment Design, Assessment Literacy, and Assessment Feedback. Each of these three dimensions consists of a further four sub-dimensions. Each of the twelve dimensions has been further developed into a deck of decision-making cards which provide a guide as to areas for consideration when developing assessment and feedback practices (Evans, 2020).

Both the Assessment Design Decision framework and EAT Framework highlight the importance of strategic planning in assessment design. The Assessment Design Decision framework stresses the importance of considering the different stages of a programme's lifecycle and the specific purposes of each assessment decision (Bearman et al., 2016). The EAT framework complements this by focusing on the detailed design of assessments, ensuring they are aligned with LOs and measuring student progress (Evans, 2020). The insights from both frameworks are that assessment design requires strategic planning that considers both the overall educational context and the specific goals of each assessment.

An additional approach commonly referred to in relation to designing modules, programmes and assessments is Constructive Alignment (CA). According to Biggs (1999), CA involves creating a teaching system where the teaching methods and assessments are closely linked to the learning activities defined in the LOs. This ensures that every element of the educational process works together to support and promote student learning. CA operates on two principles: students construct meaning through active engagement, and academic staff should align with the desired LOs (Biggs & Tang, 2011). Biggs and Tang (2007) propose that developing intended LOs should be the first step in the process of CA. LOs are written statements, identifying what a student/learner is expected to achieve at the end of a module,

programme, or degree (Adam, 2004; Mahajan & Singh, 2017). Jaiswal (2019) discusses that with the CA approach assessment activities are based on LOs that include specific learning activities and measurable verbs which guide students to achieving the desired outcome. A framework for implementing a holistic CA system was developed by Bigg and Tang (2003), this framework consists of three elements: teaching and learning activities (engaging the learner with the verb in the intended LO), intended LOs (what and how the student has to learn), and assessment task (how well has the LO been met by the student). Each of these elements is interactive with each other to create a holistic system (Biggs & Tang, 2007; Biggs et al., 2022).

Effective assessment design should incorporate skills such as group collaboration, creative problem-solving for real-world issues, managing timeframes, and formulating arguments to engage students and encourage greater effort (Sambell & Graham, 2011; Sambell et al., 2017; Sambell et al., 2019). As societal changes challenge, HE institutions, assessments must adapt to meet these new demands (Keinänen et al., 2018). O'Neill and McMahon (2005) note that student-centred learning (SCL) shifts the focus from teacher-directed instruction to student-driven learning, where students are actively involved in their learning processes. This approach aligns with the need to develop assessments that not only evaluate knowledge but also engage students in activities that enhance their autonomy, and responsibility, and provide opportunities to work with their peers. Alternatively, Sambell et al. (2019) discusses the importance of preparing students for the workforce by including activities in assessments that demonstrate transferable skills. These activities might involve managing workloads independently, creatively solving problems, developing and defending arguments, collaborating in groups, and communicating outcomes through various mediums. To further enhance the relevance and applicability of assessments, incorporating digital competencies is crucial, ensuring students are ready for the digital demands of their future careers (Bearman et al., 2022; Hidayat et al., 2023). Previously, Herrington & Herrington (2006) discussed how collaboration with industry professionals in the design and evaluation of assessments can help

align tasks with current industry standards and practices, making them more applicable to real-world settings.

Sambell et al. (2019) also acknowledge the challenges in creating effective assessments and suggest practical solutions to ensure they are valid, reliable, inclusive, and authentic. Recommendations include involving students in self-review and peer review, diversifying assessment methods, and adjusting assessments as needed. Peer support networks, such as mentoring programs, study groups, and collaborative projects, also play a significant role in improving student retention, mental well-being, and academic success (Collings et al., 2014; Tinto, 2015).

The purpose of assessments, as highlighted by Sambell et al. (2019), extends beyond merely assigning grades; they are designed to encourage deeper learning, foster student engagement, and maintain academic integrity. However, creating assessments that are clear, fair, and pedagogically sound while also being engaging and innovative remains a challenge (National Forum, 2016).

2.1.4 Authentic Assessment

The term authentic assessment is widely discussed in academic literature. The concept of authenticity in assessment is challenging to define, with no clear agreement on what constitutes an authentic design (Frey et al., 2012). Authentic assessment has been developed as an alternative to traditional, standardised assessments, which often focus on memorisation and recall, such as exams. Instead, authentic assessment seeks to involve students in tasks that more accurately represent the complex challenges they are likely to encounter in real-world situations (Ellis et al., 2019). Authentic assessment is a form of assessment which involves students conducting ‘real world’ tasks in meaningful contexts (Swaffield, 2011). Fostering an increased focus on, and a better understanding of, authentic assessment therefore aligns with intending to empower and engage students through assessment. The development of engaging and diverse assessments also aligns with the key principles of an inclusive assessment approach (CAST, 2011), which supports the growing

diversity of students in the Irish HE sectors. Authentic assessments engage students in active learning that is meaningful and adds value to their study programmes (Sambell et al., 2013; Sambell et al., 2019). Sambell et al. (2019) argue that students learn more from assessments when they can perceive the value of the work they are being asked to complete and when it is beneficial to their future. Authentic assessment has also been described as asking students to work on real-life tasks such as exploring realistic case studies and conducting laboratory experiments (Suskie, 2018).

Wiggins (1998) as cited in Koh (2017), discusses the idea that assessment should be central to learning and should be connected to real-life scenarios. Koh (2017) summarises the criteria for an authentic assessment as outlined by Wiggins (1998).

- Authentic assessment is realistic and replicates the way that students' knowledge and skills would be assessed in real-world contexts such as in the workplace.
- Authentic assessment requires students to be innovative when solving issues or doing tasks and requires students to make judgements.
- Authentic assessments require students to think critically when engaging with the subject.
- Authentic assessment allows students to practice, consult useful resources and receive feedback to make improvements.
- Authentic assessment requires students to reflect on their performance to decipher what worked well and what did not.

(Wiggins 1998 cited in Koh, 2017)

Authentic assessment is a way to relate learning and work, creating a correspondence between what is assessed in the university and what graduates do in the working world (Neely & Tucker, 2012; Villarroel et al., 2019). The use of authentic assessment has an impact on the

quality and depth of learning and development achieved by the students' skills (Ashford-Rowe et al., 2013; Villarroel et al., 2019).

Ashford-Rowe et al. (2013) proposed eight principles to be considered when designing authentic assessments from their research study. These principles are:

1. Does the activity challenge the student?
2. Is a performance, or product, required as a final assessment outcome?
3. Does the assessment activity require that transfer of learning has occurred, by means of demonstration of skill?
4. Does the assessment activity require that metacognition is demonstrated?
5. Does the assessment require a product or performance that could be recognised as authentic by a client or stakeholder? (accuracy)
6. Is fidelity required in the assessment environment? And the assessment tools (actual or simulated)?
7. Does the assessment activity require discussion and feedback?
8. Does the assessment activity require that students collaborate?

(Ashford-Rowe et al., 2013. p. 220)

Based on this framework, a module was redesigned and evaluated. The result showed a more effective preparation for students' actual work roles and that an authentic model can greatly improve task design and assessment in HE (Ashford-Rowe et al., 2013). Authentic assessment, as described by Wiggins (1998) and Ashford-Rowe et al. (2013), focuses on creating assessments that closely resemble real-world situations, allowing students to apply their knowledge and skills in practical ways. Both approaches place emphasis on the importance of challenging students with tasks that encourage critical thinking, creativity, and self-reflection. Additionally, they highlight the need for assessments to produce tangible

outcomes, such as a product or performance, and to involve feedback and reflection, enabling students to refine their abilities and better understand their learning process. These principles collectively ensure that assessments are realistic, engaging, and meaningful for students' learning.

It is crucial to design assessments that encourage authentic learning behaviours and discourage undesirable practices like reproducing textbooks, plagiarism, and uncritical use of internet sources, including copying and pasting without assessing relevance and value (Sambell, 2016). Furthermore, Sotiriadou et al. (2019) discuss linking authentic assessment to preserve academic integrity. Academic integrity will be further discussed in section 2.3. As discussed above Wiggins (1998) and Ashford-Rowe et al. (2013) note that a key principle in authentic assessment is creating opportunities to give feedback, the following section discusses feedback in HE.

2.2 Feedback in Higher Education

Feedback in HE plays a key role in improving student learning and performance. This section explores the academic literature about defining educational feedback, the role of feedback in student learning, and different feedback practices used in the HE sectors.

2.2.1 Defining Educational Feedback

Lipnevich and Panadero (2021) provide a comprehensive review of theories and models of feedback within educational settings, focusing on its role in influencing student engagement. Additionally, this review presents a list of definitions of feedback used in each of the models discussed. This research addresses the evolving nature of educational feedback definitions, with an agreement on its role as information crucial for improvement but varied perspectives on whether it is the information exchanged or what students do with the information that defines feedback. Each model shares some of their elements such as the concept of an "information gap" and the need for active student processing, are identified. Table 2 presents an adapted version of Lipnevich and Panadero's (2021) definitions for educational feedback.

Table 2.

Summary of Feedback Models and Definitions in Lipnevich and Panadero (2021).

Publication	Feedback Model	Feedback Definition
Ramaprasad (1983)	Response certitude model	Feedback is information about the gap between the actual level and the reference level of a system parameter which is used to alter the gap in some way
Sadler (1989)	Five-stage process of the learner receiving feedback. (Name proposed by Lipnevich and Panadero, 2021)	...a key element in formative assessment... usually defined in terms of information about how successfully something has been or is being done
Nicol and MacFarlane-Dick, (2006)	Self-regulated learning and the feedback principles	Feedback is information about how the student's present state (of learning and performance) relates to these goals and standards. Students generate internal feedback as they monitor their engagement with learning activities and tasks and assess progress towards goals. Those more effective at self-regulation, however, produce better feedback or are more able to use the feedback they generate to achieve their desired goals (Butler and Winne, 1995)

Evans (2013)	Feedback landscape	Assessment feedback, therefore, includes all feedback exchanges generated within assessment design, occurring within and beyond the immediate learning context, being overt or covert (actively and/or passively sought and/or received), and importantly, drawing from a range of sources
Carless and Boud (2018)	Feedback literacy	Feedback is defined as a process through which learners make sense of information from various sources and use it to enhance their work or learning strategies (Boud and Molloy, 2013; Carless, 2015).

(Adapted from Lipnevich and Panadero, 2021. p.22-24)

The definitions of educational feedback in Table 2 from Lipnevich and Panadero (2021) share some common ideas but also show important differences. All definitions agree that feedback is crucial information meant to help students improve. For example, Ramaprasad (1983) describes feedback as information about the gap between current and desired performance, while Sadler (1989) focuses on how well a task has been completed. Nicol and MacFarlane-Dick (2006) state that feedback helps students understand their progress towards their goals. These definitions all highlight that feedback is key to identifying areas where students need to improve.

However, Table 2 also shows there are differences in how feedback is viewed. Ramaprasad (1983) and Sadler (1989) see feedback mainly as information given by the instructor. In contrast, Evans (2013) and Carless and Boud (2018) take a broader view, including feedback from multiple sources like peers and various assessment contexts. Nicol

and MacFarlane-Dick (2006) also highlight that students should actively engage with feedback and generate their internal feedback. The review of feedback definitions in educational settings, as summarised in Table 2 adapted from Lipnevich and Panadero (2021), illustrates both shared elements and significant variations. While all models recognise feedback as being essential information for student improvement, they differ in scope, sources, and emphasis on immediate versus long-term use.

One of the key challenges in managing feedback in HE is that the meaning of the term undergoes much debate (Winstone & Carless, 2019). Recent literature in HE discusses a shift in how feedback is conceptualised. Feedback should not be viewed as only a one-way transfer of information from academic staff to students. Instead, it should be seen as a learner-centred process where students interpret performance information and use it to enhance future performance (Nicol & Macfarlane-Dick, 2006; Boud & Molloy, 2013; Carless, 2015; Henderson et al., 2019). This approach requires students to actively engage with feedback, making sense of it and applying it to improve their LOs.

Winstone and Carless (2019) expand on this by defining feedback as a dialogic and interactive process. They argue that effective feedback involves meaningful dialogue between academic staff and students, helping students understand their current performance and find areas for improvement. This perspective highlights the importance of engaging students in feedback to foster self-regulation and continuous improvement. Therefore, feedback should not only deliver comments but also involve a partnership where students actively use feedback to enhance their learning (Winstone & Carless, 2019). This evolving view aligns with a broader shift towards more interactive feedback models in HE, promoting active learning where students are seen as active participants in their education (Boud & Molloy, 2013; Carless, 2015). Section 2.2.2 explores the literature surrounding the role of feedback in student learning.

2.2.2 The Role of Feedback in Student Learning

Section 2.2.1 focused on defining feedback in HE, this section focuses on what role feedback plays in student learning. Nicol and Macfarlane-Dick (2006) present seven principles for good feedback practice. They highlight that good feedback practices:

1. Helps clarify what good performance is.
2. Facilitates the development of self-assessment.
3. Delivers high-quality information to students about their learning.
4. Encourages staff and peer dialogue around learning.
5. Encourages positive motivational beliefs and self-esteem.
6. Provides opportunities to close the gap between current and desired performance.
7. Provides information to staff that can be used to help shape teaching.

(Nicol and Macfarlane-Dick, 2006, p. 205).

Feedback in HE has long been acknowledged as a challenging issue. Students frequently express that often feedback is provided at the wrong times, can be difficult to comprehend and apply, and occasionally it can be discouraging (Evans, 2013; Winstone et al., 2017a; Carless and Winstone, 2020). Dawson et al. (2018) discuss how there is a difference in views on what constitutes effective feedback. Staff members emphasise aspects of feedback design such as the timing and the modes of delivery, while students are more concerned with the substance of the feedback, advocating for comments that are detailed, usable, and tailored to their individual needs. Morris et al. (2021) highlight that whilst a large body of research exists detailing the effective feedback practices in compulsory education (primary and secondary) there is a lack of corresponding data within HE. The authors propose the need for evidence-guided solutions for implementing valuable feedback practices and offer recommendations for their development.

Although many researchers agree that feedback is essential for improved performance and can contribute to enhanced learning and development. The analysis of the literature identifies two main issues: Firstly, students often dread and dismiss feedback and secondly,

the effectiveness of feedback varies depending on specific characteristics of feedback that students receive, and its implementation can be complicated (Hattie & Timperley, 2007; Shute, 2008; Lipnevich & Smith, 2009; Boud & Molloy, 2013; Jonsson & Panadero, 2018; Panadero and Lipnevich, 2022).

In the past, academic staff corrected student work without a formal feedback theory. Marking was viewed as a natural part of teaching, where students learned about their progress, hoping to motivate them to study harder if they did not perform well. Feedback was often seen as a one-way process of knowing if students simply needed to follow instructions to improve. This assumption relied on the belief that the information given was enough for change, clear, and interpreted the same way by students as intended by academic staff (Boud and Molloy, 2013).

Boud and Molloy (2013) propose two feedback paradigms: Feedback Mark 1 and Feedback Mark 2. Feedback Mark 1 is characterised by the transmission of information from academic staff to students, with an emphasis on completing a feedback loop to ensure the information is received and acted upon. Feedback Mark 2, on the other hand, shifts the focus to learner agency, considering students as active constructors of their understanding.

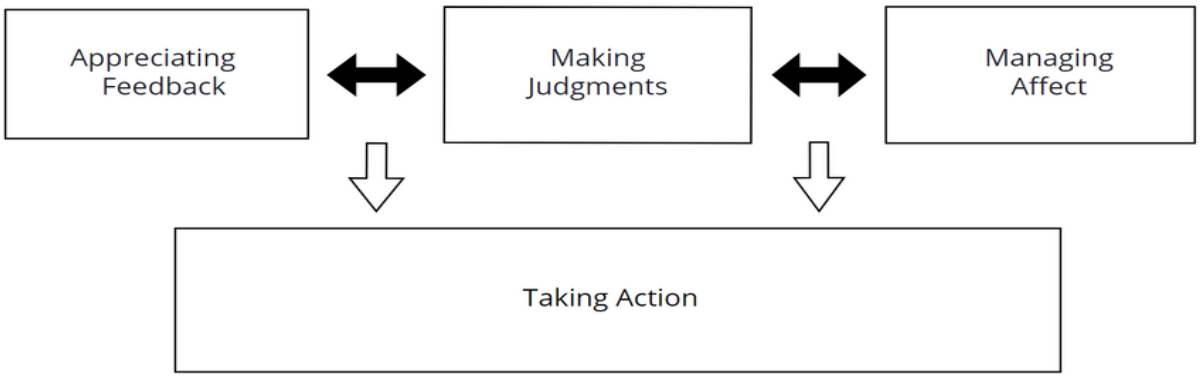
Feedback Mark 2 is preferred by Boud and Molloy (2013), as this model aims to equip students for lifelong learning, emphasising dialogue, self-monitoring, goal setting, and engagement over time. The model recognises the importance of developing students' capacity to look for and utilise feedback beyond formal educational structures, promoting a practice-oriented view of assessment. It is built on three key elements: learners, curriculum, and the learning environment, with a focus on enhancing students' capabilities and informing judgments about their work. This was previously highlighted by Taras (2002) stating the need for greater student involvement in assessment and better integration of feedback and learning.

Carless and Boud (2018) outline that students often face challenges in interpreting and utilising feedback, hence the need for developing their feedback literacy. Although feedback is a key aspect of educational practice and pedagogy, the process of integrating feedback into

learning is loaded with complexities and often met with varying degrees of success with students. To overcome these challenges, the research proposed a framework that is meant to support and enhance students' feedback literacy. This framework (Figure 2) is composed of four primary factors: appreciating feedback, making judgments, managing affect, and taking action. Similar to Feedback mark 2, this framework aims to support students' long-term educational growth.

Figure 2.

Features of Student Feedback Literacy (Carless & Boud, 2018).



(Carless & Boud, 2018)

Figure 2 illustrates the four main elements outlined by Carless and Boud (2018) regarding feedback literacy. First, appreciating feedback involves students valuing the feedback process and understanding its vital role in learning and personal growth. Second, making judgments is the cognitive part where students assess the feedback's validity and relevance, deciding how it fits with their views of their work. Third, managing affect acknowledges the emotional impact of feedback, requiring students to build resilience and stay motivated even when receiving critical evaluations. Lastly, taking action focuses on the practical side, where students use feedback to make improvements and apply it to future tasks.

Evans (2013) and Henderson et al. (2019) both explore the complexities and evolving nature of assessment feedback in HE. Evans (2013) provides a thorough examination of how

students receive and interpret feedback, revealing its crucial role in student learning and professional development. Despite this, there is no consensus on the most effective feedback methods, and feedback is variously perceived as a product, a component of learning, or an ongoing process. Additionally, Evans highlights widespread dissatisfaction with current feedback practices among both students and lecturers, pointing to a "feedback gap."

Similarly, Henderson et al. (2019) discuss the evolving definitions of feedback, agreeing on its role as crucial information for improvement but noting varied perspectives on whether feedback is defined by the information exchanged or by what students do with that information. They identify an ‘information gap’ like Evans's ‘feedback gap’ noting that despite its importance, feedback is often under-utilised in HE (Pitt & Norton, 2017; Henderson et al., 2019). Henderson et al. (2019) outline twelve conditions that enable effective feedback, which are categorised into 3 themes: capacity, designs, and culture.

Capacity for feedback:

- Learners and educators understand and value feedback.
- Learners are active in the feedback process.
- Educators seek and use evidence to plan and judge effectiveness.
- Learners and educators have access to appropriate space and technology.

Designs for feedback:

- Information provided is usable and learners know how to use it.
- It is tailored to meet the different needs of learners.
- A variety of sources and modes are used as appropriate.
- Learning outcomes of multiple tasks are aligned.

Culture for feedback:

- It is a valued and visible enterprise at all levels.
- There are processes in place to ensure consistency and quality.
- Leaders and educators ensure continuity of vision and commitment.

- Educators have flexibility to deploy resources to the best effect.

(Henderson et al. 2019. p.6)

However, the findings from Henderson et al. (2019) also underline that while the conditions for effective feedback are universally applicable, their implementation must be tailored to the unique context of each educational environment, respecting their complexity and diversity. The feedback practices that thrive in one scenario may not easily be transferrable to another.

Academic staff are not merely dispensers of knowledge and evaluators of performance; they are also coaches and facilitators in the feedback process (Carless & Boud, 2018). Feedback is as fundamental in the learning process as having a teacher (Black and Wiliam, 1998; Dann, 2014). To support this Carless and Winstone (2020) have developed an academic staff feedback literacy framework (Figure 3) that encompasses design, relational, and pragmatic dimensions. It illustrates how curriculum and assessment design (design dimension), positive support and constructive communication (relational dimension), and the management of feedback practice compromises (pragmatic dimension) are essential for effective feedback engagement. This framework emphasises that a collaborative approach from both the student and academic staff can maximise the benefits of feedback.

Figure 3.

Staff Feedback Literacy Framework (Carless & Winstone, 2020).

Dimension	Feature	Selected Implementation Strategies
Design Dimension	Design assessment and feedback processes to encourage student uptake	Teachers design sequences of linked assessment tasks; opportunities for students to develop skills in using feedback
	Support students in making evaluative judgments	Students discuss and evaluate exemplars of different standards; students are involved in composing and receiving peer feedback
	Use timely guidance and intrinsic feedback to make expectations clear	Teachers provide clear and timely assessment task guidance; teachers incorporate intrinsic feedback within learning activities so students have opportunities to clarify meanings and expectations
	Deploy technology to facilitate feedback uptake	Students are enabled to store, access and use previous feedback; teaching teams use learning analytics for individualized feedback at scale
Relational Dimension	Show supportiveness, approachability and sensitivity to how feedback is shared	Teachers provide honest, critical feedback in supportive ways; teachers share and model their own experiences of receiving and responding to critical feedback
	Envisage feedback processes as partnerships between teachers and students	Teachers and students negotiate shared responsibilities for making feedback processes effective; teachers cede some power and students take increased responsibilities
	Deploy technology to strengthen the relational dimension of feedback	Teachers use audio feedback for nuance and rapport, and video feedback to enhance social presence
Pragmatic Dimension	Navigate tensions between different functions of feedback	Teachers strive to overcome multiple functions of feedback processes by focusing squarely on feedback for student learning
	Manage disciplinary factors in feedback processes	Teaching teams build on and adapt existing feedback practices carried out within disciplines
	Deploy technology for timeliness, efficiency and portability	Teaching teams use technology to implement time-saving measures and reduce ineffective marking methods
	Balance teacher workload devoted to feedback with what is useful to students	Teachers strive to design feedback processes that are useful for students and satisfying for teachers; teaching teams strategically reduce end of module comments that cannot be taken up

(Carless & Winstone, 2020)

This section explored the literature surrounding the role of feedback in student learning highlighting differing perspectives. Nicol and Macfarlane- Dick (2006) outline seven principles for good feedback practice, whilst Henderson et al. (2019) present twelve conditions for effective feedback practice. Carless and Boud (2018) (Figure 2) highlight the importance of developing student feedback literacy. Similarly Carless and Winstone (2020) developed a feedback literacy framework for staff (Figure 3). The following section, section 2.2.3 explores the various feedback practices in HE.

2.2.3 Feedback Practices

This section explores the different feedback practices used in HE. The previous sections presented the literature surrounding defining feedback in HE and the role it plays. Students often express dissatisfaction with feedback citing issues such as vague comments, lack of actionable advice, and insufficient opportunities for dialogue with academic staff (Blair et al., 2013; Winstone & Carless, 2019). Addressing these challenges requires a comprehensive approach to feedback that includes diverse methods and strategies to meet the needs of all students. This section describes three of the commonly used feedback practices in HE: written feedback, oral feedback, and peer-to-peer feedback.

Written feedback is one of the most common forms of feedback in HE. It involves detailed written comments provided by academic staff to students on assessments. The primary purpose of written feedback is to help students understand their current performance, identify areas for improvement, and guide future learning efforts. Effective written feedback is specific, timely, and actionable, which are crucial characteristics for maximising its impact on student learning (Shute, 2008; Nicol, 2010).

Specificity in feedback helps students understand precisely what aspects of their work are strong and what areas need improvement. Nicol (2010) suggests using detailed feedback rather than generic comments. Timeliness is another critical factor. Feedback provided soon after the submission of work allows students to recall their thought processes and the context of their work, making it more likely that they will engage with the feedback and apply it (Shute, 2008). Carless (2006) emphasises that feedback should be integrated into the learning process, allowing students to use it constructively before their final performance is assessed.

Actionability refers to the extent to which feedback provides clear guidance on how to improve. Feedback that offers specific suggestions for revision and improvement is more likely to be effective. Winstone and Carless (2019) argue that actionable feedback not only tells students what is wrong but also how to address the issues, fostering a proactive approach to learning. This is essential for helping students develop critical thinking and self-regulation

skills, which are vital for academic success (Hattie & Timperley, 2007). However, the effectiveness of written feedback can be hindered by multiple factors. One major issue is the lack of student engagement with feedback. Studies have shown that students often do not read or act upon the feedback they receive (Sinclair & Cleland, 2007). To address this, it is crucial to create a feedback culture that encourages students to see feedback as an integral part of their learning journey. Bailey and Garner (2010) highlight the time and effort required from academic staff to provide detailed and personalised feedback, especially in large classes, where the volume of work may limit the ability to provide comprehensive feedback to every student.

Another commonly used feedback practice in HE is oral feedback. Oral feedback relates to in-class discussions, individual discussions, and verbal comments during lectures, and is a dynamic and interactive form of feedback that significantly enhances student learning and engagement (Hattie & Timperley, 2007; Johnson et al., 2020). Its immediacy allows for real-time interaction, helping clarify misunderstandings instantly and enabling students to ask follow-up questions for better understanding. This helps to promote active learning and immediate correction of errors, making oral feedback highly effective (Hattie & Timperley, 2007). Additionally, the personal nature of oral feedback, with its tone and non-verbal cues, can be more engaging and motivational for students, fostering a supportive learning environment and encouraging students to act on the feedback received (Carless, 2006; Jensen et al., 2022).

Research shows that oral feedback can significantly impact student LOs. It can facilitate a dialogue rather than one-way communication, allowing students to develop a nuanced understanding of their performance and specific strategies for improvement (Boud & Molloy, 2013; Carless, 2015; Winstone & Carless, 2019; Joughin et al., 2020). Particularly effective in formative assessment contexts, oral feedback provides ongoing support and guidance, helping students understand their progress and identify areas for improvement before final assessments (Sadler, 1989; Nicol, 2010). However, challenges with using this

feedback practice include time constraints, especially in large classes, and the discomfort some students may feel receiving feedback in front of their peers (Huxham, 2007). To mitigate these challenges, best practices include integrating oral feedback into regular activities, offering one-on-one consultations, and training academic staff in effective oral feedback techniques (Hattie & Timperley, 2007; Boud & Molloy, 2013).

The final feedback practice explored in this section is peer-to-peer feedback. Peer-to-peer feedback is where students review and provide feedback on each other's work. Nicol (2012) argues that peer-to-peer feedback promotes deeper learning by encouraging students to engage with assessment criteria and reflect critically on their own and others' work. Topping (2017) supports this view, noting that peer feedback enhances evaluative skills and exposes students to diverse perspectives, which can broaden their understanding and improve the quality of their work. Furthermore, previous research from Van den Berg et al. (2006) indicates that peer feedback fosters a sense of community and collaboration, enhancing students' sense of belonging and motivation to learn.

Boud and Molloy (2013) suggest that proper training and guidelines are essential for ensuring effective peer feedback. They advocate for the use of rubrics and examples of good feedback practices to help students provide more structured and reliable feedback. Reinholz (2015) also discusses the importance of anonymity in peer feedback to reduce bias and encourage honesty, ensuring that students feel comfortable providing constructive criticism without fear of negative repercussions. Nicol and Macfarlane-Dick (2006) found that students who receive peer feedback are more likely to engage with the feedback process, leading to better LOs. Additionally, peer feedback can enhance students' self-efficacy and motivation. When students receive constructive feedback from their peers, they are more likely to feel confident in their abilities and motivated to improve their work (Panadero et al., 2016).

This section explores three different feedback practices used in HE. The previous sections presented the literature surrounding defining feedback in HE and the role it plays. Students often express dissatisfaction with feedback, citing issues such as vague comments,

lack of actionable advice, and insufficient opportunities for dialogue with academic staff (Blair et al., 2013; Winstone & Carless, 2019). Addressing these challenges requires a comprehensive approach to feedback that includes diverse methods and strategies to meet the needs of all students. This section discusses three commonly used feedback practices in HE: written feedback, oral feedback, and peer-to-peer feedback. The following section (section 2.3) explores the literature surrounding academic integrity in HE.

2.3 Academic Integrity

Academic integrity is a foundational principle in HE, ensuring an ethical and honest approach to learning and education. The following sections explore the literature surrounding defining academic integrity in HE, student academic misconduct, and promoting academically integral behaviours.

2.3.1 Defining Academic Integrity in Higher Education

Macfarlane et al. (2012) describe academic integrity as a problematic term because it is open to various interpretations. Furthermore, Eaton (2023) argues that there is no singular or universal definition of academic integrity. This diversity in interpretation is clear when examining the definitions provided in academic literature. The European Network for Academic Integrity (ENAI) (2018) describes academic integrity as adherence to ethical and professional principles, standards, practices, and a consistent set of values that guide decisions and actions in education, research, and scholarship. This definition underscores that academic integrity extends beyond individual responsibility to include institutional behaviour as well.

Similarly, the Quality and Qualifications Ireland (QQI) (2021) defines academic integrity as a commitment to and demonstration of honesty and moral behaviour within an academic setting. Like ENAI, QQI emphasises the importance of ethical and professional adherence but also highlights the practical application of these values in everyday academic activities, suggesting that academic integrity involves both following principles and actively living by them. The International Centre for Academic Integrity (ICAI) (2021) offers a slightly

different perspective, defining academic integrity as a commitment to six core values: honesty, trust, fairness, respect, responsibility, and courage. This definition focuses more on individual and interpersonal qualities that underpin academic integrity.

To ensure academic integrity, the responsibility should not rest solely on students, academic staff and HE institutions also play crucial roles. Recognising this, many institutions have developed comprehensive guides for both students and staff, detailing their roles, responsibilities, procedures for addressing breaches, and additional resources to support academic integrity (Bretag et al., 2011; Sefcik et al., 2019). However, the diversity in definitions and interpretations of academic integrity can lead to inconsistencies in how academic misconduct is handled and how students are educated about integrity (Macfarlane et al., 2012).

To develop a shared understanding of academic integrity, it is essential to implement university-wide policies and foster regular discussions among staff and students (Bretag & Mahmud, 2016). However, effectively communicating these requirements can be challenging when it is assumed that there is a common understanding of academic integrity, which may not exist. Staff and students can have different values, interests, and interpretations of their responsibilities and their perceptions can evolve (East, 2009; Yakovchuk et al, 2011; Bretag et al., 2013).

As discussed in section 2.1.3 academic integrity has always been a concern when it comes to creating and conducting assessments in HE. However, in recent years the advancement of technology has significantly increased the complexity of this issue (Dawson, 2020). This issue is also addressed by Sambell, et al. (2019) when they highlight a question of concern for some academic staff is who did the work? Concerns about who is carrying out the work are continuously increasing with generative AI's increasing abilities.

There are many factors academic staff must consider when designing assessments as discussed in section 2.1.3, one of which is academic integrity. The following section presents the literature surrounding academic misconduct in HE.

2.3.2 Student Academic Misconduct

Following the discussion on defining academic integrity, it is important to discuss the term academic misconduct. Academic dishonesty involves fraudulent behaviour characterised by deception, such as misrepresenting one's own work or that of others (Prescott, 1989; Simola, 2017). Furthermore, ENAI (2018) highlights that the term refers to any actions that undermine this integrity, resulting in unfair advantages or disadvantages within the academic community. This section focuses solely on student academic misconduct. For students, academic misconduct can include engaging in plagiarism and contract cheating (Finchilescu & Cooper, 2017; Davis, 2023). Additionally, ATU's Academic Integrity Policy outlines various forms of academic misconduct, including submitting work completed by someone else, using essay mills, selling or providing assignments to others, plagiarism, falsifying references, self-plagiarism, cheating in exams, misrepresenting research, improper use of technology or equipment, sharing institutional intellectual property without permission, and submitting AI-generated content as one's own (ATU, 2024a).

It is argued that there is "no singular or absolute definition of plagiarism" (Eaton, 2021. p.1). Plagiarism is defined in various ways, Šprajc et al. (2017) outline that some scholars, like Hard et al. (2006), describe it as taking someone else's ideas and presenting them as your own. Others, such as Colnerud and Rosander (2009), focus on not properly citing another person's text, while Belter and DuPre (2009) highlight the issue of directly quoting text without giving proper credit. A more recent definition is that "Plagiarism is widely understood to be the unethical use of other people's publications, by claiming the content or parts thereof as one's own, without paying tribute to or recognising the sources from which the information was obtained, either at all or properly" (Ocholla & Ocholla, 2016. p.1). Plagiarism is widely regarded as a significant challenge for HE institutions (MacDonald & Carroll, 2006; Mansoorizadeh et al., 2016; Shrivastava, 2017; Mphahlele & McKenna, 2019).

Many researchers have focused on developing software-based methods to detect and address the issue of plagiarism (Ruoyon, 2018; Chowdhury & Bhattacharyya, 2018; Kalid &

Al-Tamimi, 2020). Mphahlele and McKenna (2019) state that many universities worldwide now use text-matching software like Turnitin, which is a web-based tool that compares content against extensive databases, including student papers, periodicals, journals, and other publications, as part of their plagiarism management strategy. Turnitin is one of many plagiarism detection software available. Many of these tools claim to detect plagiarism by providing a similarity score, however relying solely on this percentage can be misleading and result in false accusations due to incorrect findings (Walker, 2009; Weber-Wulff, 2016; Mphahlele & McKenna, 2019; Eaton et al., 2019). Many academics such as Race (2014) argue for preventing issues such as plagiarism rather than focusing on detection, this will be discussed further in section 2.3.3.

Contract cheating is where a person outsources their work to a third party to complete, regardless of whether money is exchanged or the relationship of the third party to the person (Ellis et al., 2019). Bretag et al. (2018) defines contract cheating as:

> "Where a student gets someone – a third party – to complete an assignment or an exam for them. This third party might be a friend, family member, fellow student or staff member who assists the student as a favour. It might be a pre-written assignment which has been obtained from an assignment 'mill'. The third party may also be a paid service, advertised locally or online". (Bretag et al., 2018. p.2)

There are several different ways in which assessments are being outsourced such as essay mills, essay bidding services, peer sharing sites and through obtaining work from classmates, friends, and family (Awdry, 2021). From the study carried out by Awdry (2021), outsourcing assessments from friends and family was the most common method used by students. Sambell et al. (2019) raises a question of concern regarding 'who is doing the work', as this mode of academic misconduct is increasing. Hill et al. (2021) presented findings from Dawson and Sutherland-Smith (2017), showing that when markers were alerted to the possibility of ghost-written assignments, they became more effective at detecting contract cheating and accurately identifying genuine student work. Additionally, highlighting that in a

subsequent study by Dawson and Sutherland-Smith (2019), lecturers who received training to detect contract cheating demonstrated a significant improvement in their ability to recognise it. Furthermore, Hill et al. (2021) argue that in relation to contract cheating, the main challenge is not detection but proving breaches and the administrative burden of investigating potential breaches, which discourages reporting of contract cheating.

ChatGPT and generative AI sites have been a topic of interest in recent years. ChatGPT is an AI tool created by OpenAI, that generates text based on user prompts by understanding natural language and providing relevant responses. It has been trained on extensive data, but its knowledge is limited to information available up until 2021 (OpenAI, 2022; Halaweh, 2023). The use of AI tools like ChatGPT has sparked debate among academics, with concerns about their impact on academic integrity and the potential for AI-assisted misconduct (Dehouche, 2021). Academics have been debating their concerns about these sites whilst others are coming up with innovative ways to incorporate them into their teaching and assessment practices. Although the ChatGPT dilemma has only recently been making headlines, Sullivan et al. (2023) carried out research looking at media articles relating to its use in HE. The primary concern that was raised through these articles, is its effect on academic integrity. However, although there is concern being raised 41 out of the 100 reviewed articles also included an element of discussion around the sites. These discussions revolved around embracing ChatGPT into teaching and assessment practices, which is discussed in the following section.

This section explores various forms of academic misconduct, including plagiarism, contract cheating, and the use of AI tools like ChatGPT. It highlights the challenges institutions face in detecting and proving breaches, as well as the evolving strategies, including software-based detection methods, to address these issues. Additionally, it discusses the ongoing debate among academics about the impact of AI on academic integrity. The following section explores the academic literature surrounding promoting academically integral behaviour.

2.4.3 Promoting Academically Integral Behaviours

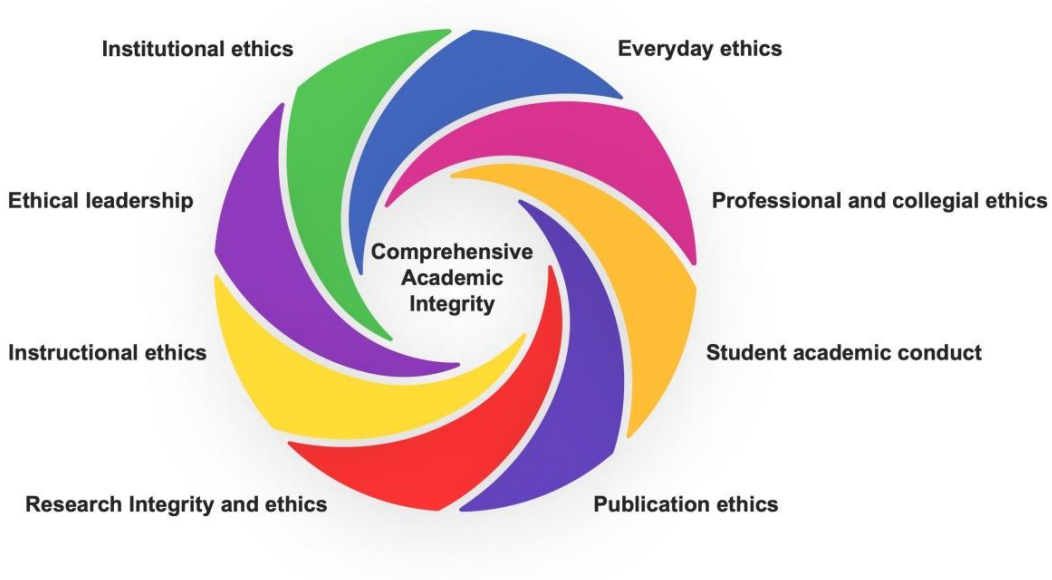
The previous section presented the literature surrounding student academic misconduct, this section provides insight into strategies for promoting academically integral behaviours. Race (2014) argues that too much time is being put into detecting and tackling plagiarism. Stating that “prevention is better than the cure”, he argues that it is important to educate students on what is acceptable and what is not. Sbaffi and Zhao (2022), identify some of the barriers faced when teaching academic integrity within HE from academic literature. These include the complex terminology used to explain academic integrity, competing views across cultures on what is expected from students, and language barriers. Furthermore, Diverse definitions and interpretations can lead to inconsistencies in handling academic misconduct and educating students about integrity (Macfarlane et al., 2014). Access, approach, responsibility, detail, and support are identified as the five principles of an exemplary academic integrity policy (Bretag et al., 2011; Davis, 2022). However, the use of complex terminology and detailed academic integrity policies may cause issues for students understanding. Teaching students about academic integrity and their roles and responsibilities should involve an institutional approach (Davis, 2022).

Bretag and Harper (2018) argue that a systemic approach is needed in HE, whereby academic integrity is embedded in every aspect of institutional activities and processes. This approach requires embedding academic integrity throughout all facets of institutional operations, such as recruitment, orientation, teaching practices, and staff development (Bretag & Harper, 2018, as cited in Morris, 2018). Similarly, Eaton (2023) argues that academic integrity has traditionally been viewed mainly as a student conduct issue, focusing on preventing plagiarism and cheating. Additionally, arguing also that there is a need to broaden the understanding to extend beyond these issues. Eaton (2023) presents the Comprehensive Academic Integrity (CAI) framework (Figure 4) which positions ethical decision-making as a crucial skill throughout the academic environment, encompassing teaching, learning, assessment, research, publication, leadership, and daily decision-making.

The CAI framework consists of eight interconnected and interrelated areas, the areas included are: “everyday ethics, institutional ethics, ethical leadership, professional and collegial ethics, instructional ethics, student academic conduct, research integrity and ethics and publication” (Eaton, 2023. p.2).

Figure 4.

The Comprehensive Academic Integrity (CAI) Framework (Eaton, 2023. p.2).



(Eaton, 2023. p.2)

The CAI framework highlights the importance of a comprehensive approach to academic integrity, extending beyond student conduct. This aligns with Bretag and Harper's (2018) argument for a holistic approach to academic integrity in HE. Eaton (2023) reflects on potential criticisms of the CAI framework, highlighting that some may find it too ‘complicated’ or as having to many areas of focus. Justifying this by stating that academic integrity is “complex, nuanced and sometimes ill-defined” (p.10), these justifications were previously discussed in section 2.3.1.

It is important to align academic integrity policies, practices, and processes across all stakeholders in a university, especially for those directly involved in teaching and learning (Bretag et al., 2013). East (2009) discusses that communicating academic integrity

requirements can be challenging when stakeholders assume they share the same understanding of what academic integrity means. Similarly, Macfarlane et al. (2014) argue that varying definitions and inconsistencies pose a challenge for educating about academic integrity. Bretag (2019) further suggests that developing a shared understanding requires university wide policies and regular discussions among staff and students.

In the literature assessment design is also discussed as a method for discouraging academic dishonesty, Sambell et al. (2019) discusses how design tactics when creating assessment can help to reduce these issues. Additionally noting that incorporating personal experiences into assessments and actively engaging students in the assessment and feedback processes can help to address such issues. Good assessment design should prompt authentic learning behaviours, discouraging practices like reproducing textbooks lecture notes, plagiarism, and uncritical use of internet sources (Sambell et al., 2016). Sotiriadou et al. (2019) suggest that authentic assessments (section 2.1.4) could be key to reducing academic misconduct and dishonesty, as authentic assessments require students to personally engage in gathering evidence and information to support their work. However, Ellis et al. (2019) argues that with issues such as contract cheating (section 2.3.2), there are limitations to authentic assessment being a solution. Highlighting also that there is a lack of clarity around the impacts of authentic assessment on student cheating behaviours and a lack of evidence that it can effectively address this issue.

In response to the growing use of AI tools like ChatGPT (section 2.3.2), Nadeem et al. (2024) propose diverse assessment methods designed to reduce reliance on such technologies and encourage critical thinking. Strategies include using context-based questions, incorporating large images and videos, requiring students to draw figures, and embedding role-playing or interviews into assessments. Additionally, assignments that demand deep insight into specific topics, self-reflection, or context-specific responses can discourage dependence on AI-generated content. These approaches, coupled with efforts to enhance academic staff's technological literacy and adapt to new instructional design

technologies, are crucial in maintaining academic integrity. Integrating AI into teaching thoughtfully can still enhance learning, but it is essential to equip educators with the skills to detect AI-generated work effectively (Sullivan et al., 2023).

2.4 Chapter Summary

Chapter 2 explored the academic literature surrounding assessment, feedback, and academic integrity in HE. Section 2.1 explored the multifaceted nature of defining assessment in HE, followed by presenting the various purposes and roles that assessment fulfils. Additionally, this section discusses the different approaches that can be considered when designing an assessment which includes authentic assessment. Section 2.2 reviews the definitions of educational feedback, and the various roles feedback plays in relation to student learning and presents the literature surrounding different feedback practices. The final section of this chapter, section 2.3 analyses the literature surrounding defining academic integrity, explores the areas of students' academic misconduct, and discusses promoting academically integral behaviours. The following chapter outlines the research methodology for this research study.

Chapter 3: Research Methodology

Introduction

This chapter outlines the research methodology for this study. Following on from the literature reviewed in chapter 2, this chapter begins with an insight into the aims of the research study and the research questions. The methodology section discusses in depth the theory surrounding the philosophical paradigms/worldviews relating to research and how they relate to this study. The chosen methodology for this study is the mixed methods approach and the reasoning for this choice is justified in this chapter.

A case study framework was used for this study and literature surrounding this framework is presented. The data collection methods adopted for this study are described, alongside a detailed description of how they were used throughout this study are also included. The data collection methods include a desk analysis, questionnaires, focus groups and semi-structured interviews. The chapter then goes into detail regarding research ethical considerations and practices. The final section provides a summary of this chapter.

3.1 Purpose of the Research

This section restates the aim and objectives and the research questions for this research study. These are readdressed in this section to show how these were used to inform the data collection process. The aim and objectives were previously outlined in section 1.1 and the research questions were outlined in section 1.1.1.

3.1.1 Research Study Aim and Objectives

The main aim of this research study is to comprehensively explore the experiences of both students and staff in terms of assessment, feedback, and academic integrity across three programmes in a Technological University.

The main objectives of the study are:

1. To identify what assessment methods and feedback practices are used by staff in the programmes involved in the study.

2. To explore the students' experiences with the assessment and feedback and identify what are their preferred methods.
3. To investigate the understanding, awareness, and challenges of academic integrity for both students and staff.
4. To provide informed recommendations for the improvement of assessment, feedback, and academic integrity based on the findings from the study.

3.1.2 Research Questions

The objectives outlined in Sections 1.1 and 3.1.1 are designed to explore each of the research questions listed below. The data collection process and the analysis of the findings from this study are reported separately for the two cohorts' students and staff. The research questions are:

1. What are the assessment methods and feedback practices currently being used by academic staff and why do they use these?
2. What are the experiences of students with different methods of assessment methods and feedback practices and what are their preferred methods?
3. What challenges arise in relation to academic integrity when developing assessment practices and how can these be mitigated?
4. How can the findings from this research study be used to overcome challenges faced in terms of assessment?

Data was gathered from both students and staff about their experiences with assessment and feedback and academic integrity. The data collection methods chosen for this study are discussed in section 3.4. The findings from this study will provide insights into assessment and feedback experiences and help identify how academic integrity concerns might be managed. The findings also informed a list of recommendations, which are presented in chapter 6.

3.2 Research Paradigms

This section discusses the theory surrounding the different research paradigms. The three basic belief systems ontology, epistemology, and axiology are also described and linked to each of the paradigms. This section is important as it explains the core philosophies behind various research methods, helping to understand why researchers choose certain paradigms and how these choices affect their studies.

A paradigm is defined as "shared belief systems that influence the kinds of knowledge researchers seek and how they interpret the evidence they collect" (Morgan, 2007 p.50., Creswell, 2011). The term is also referred to as a philosophical worldview which represents a basic set of beliefs that guide action (Guba, 1990, p.17; Creswell & Creswell, 2018). I will use the term paradigm for the purpose of this study. Cohen et al. (2018) further describe the concept of paradigms as:

> "How we look at the world, the conceptual frameworks in which we work in understanding the world, the community of scholars who are working within that framework and who define what counts as worthwhile knowledge and appropriate methodology in it, how we research the world, what the key concepts are, what counts as relevant knowledge, and how we validate and consider the knowledge". (Cohen et al., 2018 p.34)

Creswell and Creswell (2018), discuss four philosophical paradigms: Post positivism, constructivism, transformative, and pragmatism. Each with its own ontological, epistemological, and axiological beliefs. In educational research understanding ontology, axiology, and epistemology is essential for designing and conducting studies that are robust and ethical. Lincoln and Guba (1985) explain that ontology deals with the nature of reality, axiology focuses on the role of values in research, and methodology involves strategies for inquiry.

Cohen et al. (2018) expand on the three basic belief systems that make up each of the paradigms: ontologies, epistemologies, and axiologies. Ontologies refers to how the

researcher views reality, each of the paradigms is considered to have different views and beliefs when it comes to realities, postpositivist are thought to hold the belief that there is one reality, while constructivists believe there are multiple realities that are constructed by society (Mertens, 2019). Epistemologies refers to the ways of understanding, and researching the realities, and the relationship better knower and would-be known (Cohen et al.,2018; Mertens, 2019). The axiology looks at the researchers' ethical beliefs and value systems. Mertens (2019), referencing Guba and Lincoln (2005) addresses a fourth element of the basic belief systems as Methodology. The methodology is how the researcher goes about obtaining information and knowledge.

The first of the four paradigms discussed by Creswell and Creswell (2018) is post-positivism which is commonly referred to as the 'scientific' method and is believed to represent the traditional forms of research. Post-positivist research reflects the need to identify and measure the causes that impact on the outcomes and use a quantitative approach (Creswell & Creswell, 2018). Post-positivist research should be guided by the best evidence available at that moment in time (Phillips & Burbules, 2000; Robson & McCartan, 2016). Post-positivists assume a critical realist ontology, which suggests that reality exists independently of our thoughts and beliefs but our understanding of it is inherently incomplete (Lincoln et al., 2018). In terms of the epistemological approach, post-positivists consider knowledge to be tentative and that it must be obtained through rigorous scientific methods that aim to be objective (Phillips & Burbles, 2000). The post-positivist axiological approach is to strive for objectivity and neutrality in their research, aiming to minimise the influence of the researcher's values and biases on the outcomes (Creswell & Creswell, 2018).

The second paradigm is constructivism, which is based on the understanding that individuals develop their meaning from experiences, these meanings can vary and there may be numerous meanings derived from one experience. The personal, historical, and cultural settings are believed to influence the individuals experience (Creswell & Creswell, 2018). This paradigm is typically associated with qualitative research. Guba and Lincoln (1994) highlight

that the ontological belief for constructivism is that there are multiple socially constructed realities, meaning that what is considered as real can vary depending on different people's perspectives and the context. The epistemological belief is that knowledge is constructed through the interactions between the researcher and the participants and the researcher seeks to understand the individuals' experiences (Creswell & Poth, 2016). Constructivist research is value-driven, meaning the beliefs and perspectives of the researcher play a key role. To address this, constructivists prioritise reflexivity, which involves researchers critically examining their values and biases to understand how these factors shape their research (Lincoln & Guba, 1985).

Transformative is the third paradigm, which believes that research inquiry needs to be aligned with politics and political agenda to confront social oppression (Mertens, 2010). This paradigm came about during the 1980's and 1990's, because of individuals who believed that the other paradigms did not work for marginalised members of society (Creswell & Creswell, 2018). Cohen et al. (2018), discuss how this paradigm seeks to help and improve the life situation of the research participants whilst working on issues such as oppression and empowerment. Mertens (2010) describes the ontological beliefs of the transformative paradigm as recognising reality but focusing on social constructs that sustain inequality. Furthermore, the axiological belief is that transformative research is driven by strong ethical commitments to social justice. From an epistemological perspective, the transformative paradigm requires researchers to understand the relationships among the participants by creating collaborative spaces that foster the generation of new knowledge (Cram & Mertens, 2016).

The final paradigm discussed in this section is Pragmatism. Creswell (2011) describes pragmatism as recognising the importance of the research questions, the value of experiences, and the practical consequences, action and understanding of real-world phenomena. Pragmatism focuses on answering the research question through gathering data via multiple methods incorporating both quantitative and qualitative, to find the best solution

and understand the problem (Cohen et al., 2018). Pragmatists view knowledge as being constructed and based on experiences in the real world (Johnson & Onwuegbuzie, 2004; Robson & McCartan, 2016). The ontological beliefs of pragmatists are that multiple realities are shaped by interactions with a particular context (Creswell & Plano Clark, 2018). Kaushik and Walsh (2019) state that a key underpinning of pragmatist epistemology is that "knowledge is always based on experience", highlighting that one's perceptions of the world are influenced by their social experiences. Axiologically, pragmatists place priority on achieving practical outcomes and making use of the research findings (Biesta, 2010). Creswell (2011) recognises that pragmatism is commonly linked with mixed methods research as the aim is to identify 'what works' and will utilise various methods of data collection to help find a solution to the research question or problem.

Williams (2020), reviews what is referred to as the 'paradigm wars' first titled by N.L Gage (1989) which refers to a conflict between academics of qualitative and quantitative research. The conflict refers to arguments concerning the relative merits of differing approaches based on a researcher's perspective on epistemology and ontology (Griffiths and Norman, 2012). The mixed methods approach, which integrates both qualitative and quantitative data, has gained prominence and effectively addresses this issue (Williams, 2020).

3.2.1 Research Paradigm for this Study

Section 3.2 presented the theory surrounding paradigms and philosophic beliefs underpinning each of the paradigms, this section discusses the paradigms and philosophic beliefs that underpin this research study. This study aims to explore the real-world phenomena of assessment, feedback and academic integrity within a Technological University and identify the consequences they have on students learning and development. For my research, I have chosen to integrate both pragmatism and constructivism as complementary paradigms, as these paradigms align with the study's focus on practical outcomes and the understanding that knowledge is constructed through individual experiences. Pragmatism, with its practical

and flexible approach, allows me to address real-world problems effectively by combining both quantitative and qualitative methods. This paradigm values the practical utility of research outcomes, ensuring that the findings are not only theoretically sound but also applicable in practical settings (Biesta, 2010). Additionally, constructivism emphasises the socially constructed nature of reality and the importance of understanding the subjective experiences of individuals (Creswell & Poth, 2018). This paradigm supports qualitative methods, such as interviews and focus groups, which are essential for exploring the individual experiences and perspectives of participants in this study. Ontologically I believe that reality is both socially constructed and context dependent, I acknowledge the existence of multiple realities that are shaped by individuals' experiences and interactions. Epistemologically, I value the creation of knowledge through collaborative interactions with participants and recognise that this knowledge is subjective. Finally, this research study is guided by ethical principles that prioritise transparency and the practical impact of the findings, with the research being valuable in addressing real-world challenges in HE.

The methodological approach that is taken is a mixed method approach using a case study framework. Although there are some objecting views for this method discussed in section 3.2.2, I found it to be the best fit for this research study. The mixed methods approach involves collecting and analysing both qualitative and quantitative data. The core assumption of the mixed methods approach highlighted by Creswell and Creswell (2018) is that integrating qualitative and quantitative data produces further insight beyond what could have been produced by choosing to use qualitative or quantitative alone. The reason for combining both approaches is to enable a more comprehensive insight into the research area and to answer more complex research questions (Cohen et al., 2018).

As the researcher, I recognise the importance of the research questions to explore if assessments and feedback can contribute to student success. The study seeks insight into both the student and staff experience with assessment and feedback, to understand their lived experiences. Incorporating both experiences allowed me to identify areas for improvement.

The topic of academic integrity is also important in this study as an aim (section 1.1 & 3.1.1) is to understand what challenges are faced by academic staff when mitigating it. The key element in the data collection process is to first get an understanding of whether there is a shared understanding of what academic integrity means. Getting an understanding of this will help to design ways to overcome any challenges faced by academic staff. For these reasons, I identify with the pragmatic paradigm.

Constructivists believe that individuals develop their meanings from their experiences, and these meanings can vary widely, with multiple interpretations possible from a single experience (Creswell & Creswell, 2018). In this study, which collects data on the experiences of students and academic staff across three programmes, I recognise that each individual's unique characteristics shape how they interpret different experiences. Therefore, how one person experiences an assessment or learns from feedback may differ significantly from another's interpretation.

Aligning with both the pragmatic and constructivist paradigms allows the study to explore the experiences of the students and academic staff on each programme to understand which assessment practices and feedback methods are most beneficial to learning and help to ensure student success. It also helps to identify challenges faced by individuals and find ways for academic staff to overcome these challenges.

3.2.2 Research Methodologies

Section 3.2.1 outlines the research paradigms chosen for this study, this section expands on this by discussing the research methodologies used for this research. Bryman (2012) details the key differences between quantitative and qualitative research strategies. A quantitative research strategy emphasises quantification during the collection and analysis of data and involves a deductive approach to the relationship between theory and research. A qualitative research strategy on the other hand, emphasises words and verbal input rather than quantification and generally consists of an inductive approach to the relationship between theory and research (Bryman, 2012). The mixed methods approach combines both data

collection and analysis types, enabling the study to generate figures on various factors, such as the number of students enrolled in specific modules. Additionally, it allows for the inclusion of data on the experiences of both students and academic staff within a Technological University.

Robson and McCartan (2016), discuss the idea of the incompatibility thesis which addresses the concern that a mixed methods approach is not possible. The reasoning behind this thesis is that as both qualitative and quantitative methods are associated with two different paradigms that they cannot be compatible with each other (Robson & McCartan, 2016). Cohen et al. (2018) draw attention to this concern by referencing Hamersley (2013) who argues that both approaches have different rationales and therefore having a mixed method approach means abandoning the key assumptions of qualitative research. While concerns exist about the potential clash between the rationales of these methods from the literature, this combination was essential for meeting the study's objectives.

3.3. Research Framework: Case Study

A case study framework was chosen for the purpose of this research study. The purpose of a case study is to portray an in-depth view of the quality and complexity of social/educational programmes or policies as they are implemented in specific socio-political contexts (Simons, 2014). Using multiple data collection methods to develop a case study is recommended and the most often used are observations, interviews, and focus groups (Harrison et al., 2017). By focusing on specific instances, case studies enable researchers to understand the dynamics present within particular settings, allowing for a thorough examination of the variables and their interactions (Creswell & Poth, 2016). The case study framework aligns with this study as the aim is to explore the experiences of both students and staff with assessment, feedback and academic integrity across the three programmes.

Yin (2017) defines case studies in research with a two-fold approach. Firstly, as an imperial method that investigates a contemporary phenomenon in depth and within its real-world context. Secondly, as a method that manages situations with more variables of interest

than data points, relying on multiple sources of evidence. This definition determines how case study research comprises of an all-encompassing mode of review, its data collection methods, and specific approaches to data analysis (Yin, 2017). Although there are said to be many different types and styles of case studies, Yin (2009) as cited in (Cohen et al., 2018) according to the purpose of the case analysis, identifies three variations of case study design based on intent: the single method case study, the collective or multiple case study, and the intrinsic case study (Creswell & Poth, 2016). The single method case study is where the researcher chooses one case to demonstrate an issue or theory. The intrinsic case study is where the focus is on the case itself as it presents a unique situation. The third variation is the collective or multiple case study, whereby a researcher demonstrates an issue or theory through a group of individual cases (Creswell & Poth, 2016). Yin (2017) explains that case studies are useful for exploring complex issues in real-life contexts, but one of the drawbacks is that the findings might have limited generalisability. This means that what you learn from a specific case might not apply to other situations.

The intrinsic case study framework was used for this study. Although three programmes participated in the study the data collected from each was analysed together. By combining the data from all three programs, the study views the experiences across these programs as a single, collective phenomenon within the university. The emphasis is on gaining an in-depth understanding of this specific case. This framework was chosen for this study for several reasons. The intrinsic case study is suitable because the research is centred on the context of the three programmes in one Technological University, with the intention being to explore the collective experiences as one case rather than comparing separate cases. The following section presents the data collection process for this research study.

3.4 Data Collection Process

This section discusses the data collection process, and the various tools used. The process was designed using a mixed methods approach. This study aims to explore the experiences of students and staff with assessment, feedback, and academic integrity (section

1.1) in a Technological University, to identify areas that could be re-imagined improving the overall learning experience for students. Three programmes were involved in this study as outlined in section 1.2.2. As the philosophical stance taken for this study is pragmatism and constructivism, a mixed method approach to data collection is appropriate, as discussed in section 3.2.1.

The research objectives are explored through the data collection process (section 1.1). The data collection tools used for this study were designed to investigate each of the objectives. Each of the objectives will be outlined again throughout section 3.4 to give a rationale for the data collection tools that were used to explore them. Sections 3.4.2 to 3.4.5 further expands on the tools used by providing relevant academic literature surrounding each of the tools and how they were used for this study. Objective one (section 1.1) is to identify the assessment methods and feedback practices currently being used by staff on each of the programmes. To identify what assessment methods are being used the desk analysis (section 3.4.2) was carried out. In addition, the staff questionnaire (section 3.4.3) and semi-structured one-to-one interviews (section 3.4.4) were carried out to further explore what assessment methods and feedback practices are used. Objective two (section 1.1) is to explore the student experience with assessment and feedback. To achieve this objective a student questionnaire (section 3.4.3) and focus groups (section 3.4.5) were carried out. Objective three (section 1.1) is to investigate the understanding, awareness, and challenges of academic integrity from both students and staff. This investigation was carried out through both the student and staff questionnaires, the student focus group and the semi-structured one-to-one interviews with staff. Additionally, all the data gathered through the questionnaires, focus groups, and semi-structured interviews provide the evidence for the fourth objective (section 1.1), which is to provide informed recommendations to improve students' and staff's experiences with assessment, feedback, and academic integrity. Each data collection tool incorporates a mixture of open-ended, closed-ended, multiple choice and scaled questions. The reason for the variety of question types is to gather many types of data from the study participants to give

a greater insight into their experiences. Figure 5 illustrates the objectives of this student and which data collection tools were used to explore each objective.

Figure 5.

Aligning the Data Collection Process to the Objectives of the Research Study.

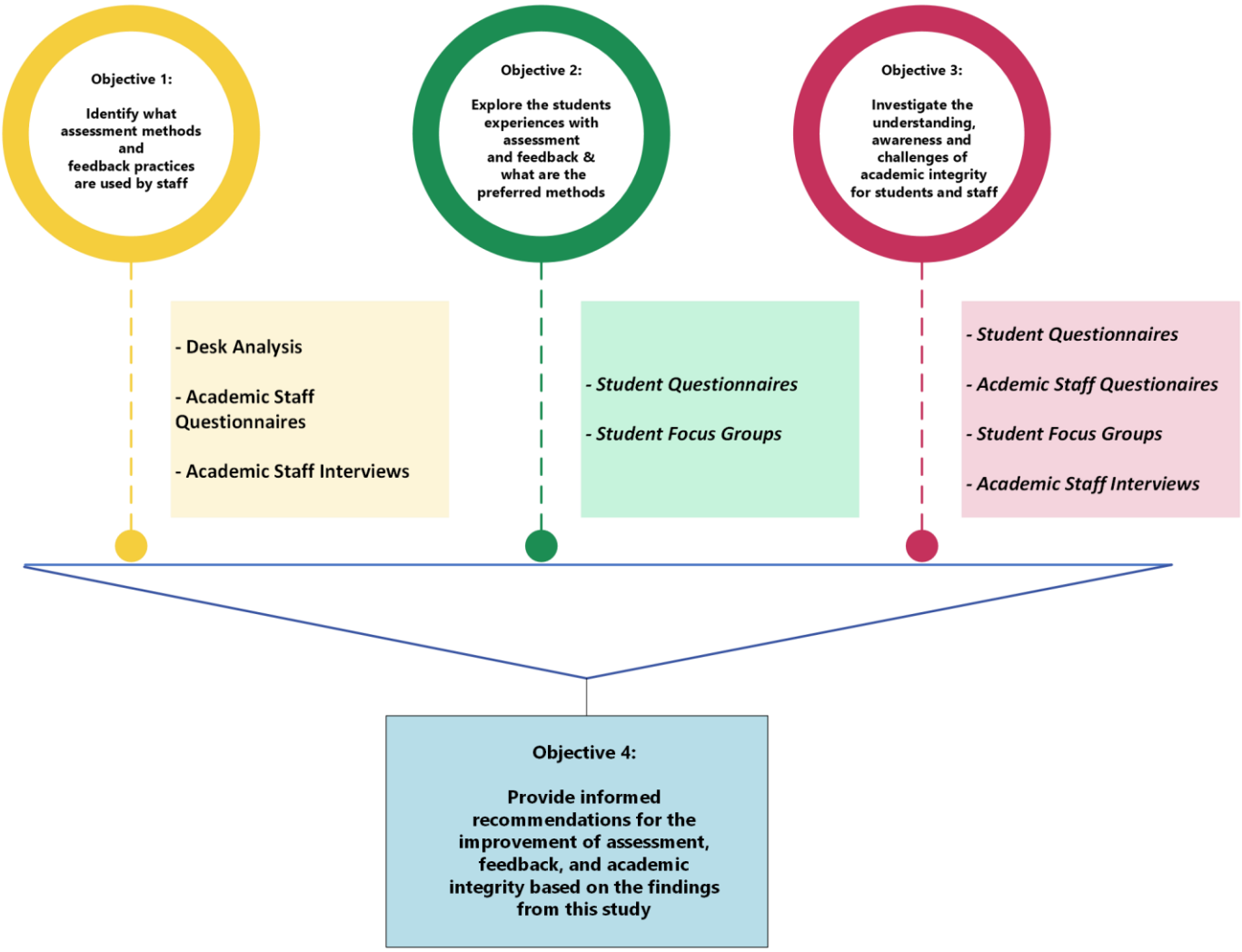


Figure 5 illustrates how the data collection process is designed to achieve the objectives of the study. Each stage of the process feeds into different objectives and gathers relevant data.

3.4.1. Study Participants

The study participants are a combination of academic staff and students from across three programmes in a Technological University. An open invitation was sent to academic staff from the Teaching and Learning Centre for programmes to volunteer to take part in the study. Three programmes expressed interest in taking part in the study. Following the expressions of interest, I met with the programme representatives to discuss the plan for the study and to provide the opportunity for questions. As a result of these meetings, all three programmes agreed to take part in this research study. An information sheet (Appendix A) was distributed to each programme lead team via email. Additionally, for each of the data collection tools carried out with students and staff, an information sheets and consent forms were sent via email to complete in advance (Appendix E & G). The three programmes involved in the study are outlined in section 1.2.2 and are referred to as programmes one, two and three.

3.4.2. Desk analysis

The desk analysis was developed as part of this study to get an insight into the variety of assessment methods used by academic staff within an entire programme. The purpose of this analysis was to be the first step in the data collection process to get a clear understanding of the various assessments designed by academic staff throughout the programme. This process was carried out at the beginning of the study to identify what are the current assessment methods used by staff. This gives a clear insight into various methods used, how they are used and at what stage of the programme are they used.

To collect this data accurately an Excel form was developed for each programme and populated with headings that were specifically designed to gather information about assessment in each module. The headings chosen to be included in the Excel form were: The module name, the stage of the programme in which the module takes place, whether the module is an elective or a mandatory module, what credits are allocated to the module, what percentage of the module is assessed via continuous assessment, the assessment types used followed by a description, and details of any formative assessments carried out. Academic

staff were asked to populate the Excel form with these details about their assessments. This form was distributed to all staff on each programme through the programme leads.

The desk analysis was a key starting point in the data collection process, as it identified the variety of assessment methods being used on each programme. This process enabled academic staff on the programmes to review their assessment strategy and to review assessment methods across the entire programme.

3.4.3 Questionnaires

Questionnaires are “written instruments that present respondents with a series of questions or statements to which they are to react either by writing out their answers or selecting from among existing answers” (Brown, 2001, p.6). Although there are a variety of options to choose from when deciding what type of questionnaire to carry out, the self-completed online questionnaire was the most suitable for this study as it can be anonymised upon collection and will not interfere with teaching time. Other methods of conducting questionnaires include, over the telephone, by post or administering face-to-face. As there were multiple data collection tools being used in this study across one academic year, I wanted to keep disruption to teaching time at a minimum to not interfere with students or staff’s valuable classroom time.

As discussed in section 3.2.2, a mixed methods approach to data collection was adopted for this study. A variety of question formats can be incorporated into a self-complete online questionnaire. A combination of qualitative and quantitative question designs was incorporated into the questionnaire. Creswell and Creswell (2018) debate that by integrating qualitative and quantitative data it produces further insight beyond what could have been produced by choosing to use qualitative or quantitative alone. The reason for combining both approach's is to enable a more comprehensive insight into research area and to answer more complex research questions (Cohen et al., 2018).

Open-ended questions allow the respondent to give details surrounding their answer and allow for a deeper understanding of the participant’s experiences to be achieved. Closed-

end questions, generally allow for a yes or no response, with no option to explain why the respondent gave their answer (Tuckman & Harper, 2012). The use of closed ended questions allows for the formation of quantitative data. Multiple choice questions were also designed for the questionnaires, these gathered data in relation to age, background, and education. When designing the questionnaires for this study both formats of questions were developed for use in the questionnaires with branching options available for closed-ended questions, to enable respondents to give explanations for their responses when necessary. Having this option to give explanations for the responses enabled students and staff to share more about their experiences in alignment with the aim and objectives of the study (section 1.1).

Scaled question formats are designed with a statement where the respondents can agree or disagree with statements, with a series of degrees. A commonly used format for this style of questioning is the five-point scale ranging from excellent to very poor (Tuckman & Harper, 2012). The questionnaires developed for this study incorporates this style of question and has adapted the five-point likert scale to range from strongly agree to strongly disagree, with an option to select that the respondent has never completed a particular form of assessment.

Questionnaires allowing for anonymity can help to encourage honesty (Robson & McCartan, 2016). Participation in the questionnaires is voluntary, and all data is anonymised upon collection and any identifiable information was extracted, to protect the identity of any academic staff or student. The aim of having the questionnaire anonymous was to encourage respondents to openly share their experiences with assessment, feedback, and academic integrity within their programme.

Two questionnaires were designed for this study to explore the student experience and the staff experience with assessment, feedback, and academic integrity. Section 1.2.2 discusses the background of how where this study originated, in the first phase of the re-imagining assessment project a questionnaire was designed and carried out with students and graduates. This questionnaire was used as template for the development of the student and

staff questionnaires. This questionnaire was adapted, and the questions were shared with the programme leads to review and share ideas of topics that could be included. From this review process it was identified that some of the questions needed clarification. In particular, the addition of a definition for the term authentic assessment was added.

The student questionnaire (Appendix B) and staff questionnaire (Appendix C) were piloted by four staff members that were external to the study, two academics staff members and two members of staff that are learning technologists. Through the pilot of the questionnaires, suggestions were given regarding the time of completion needing to be updated, question design to be considered, and the flow of the questions needing to be improved. A suggestion made by one of the pilot participants was to expand on the teaching experience section, the section originally covered only experience in third level, the adaptation to this question allowed for participants to include teaching experience in primary and/or secondary. Another suggestion was also made regarding the clarity of the data protection information section and the teaching and learning background. These were taken on board, and the sections were updated accordingly.

3.4.4. Interviews

Interviews were used to capture insights from academic staff about their experience with assessment, feedback, and academic integrity. An interview is described as a ‘conversation that has structure and purpose’ (Kvale & Brinkmann, 2009, p.3). King et al., (2019) discuss the characteristics of a qualitative research interview noting the importance of open-ended non-leading questions, focusing on the interviewees' personal experiences and seeking to build rapport with the interviewee.

Interviews are widely categorised based on the structure. Robson and McCartan (2016), categorise interviews as: Fully structured interviews, semi-structured interviews, and unstructured interviews. Fully structured interviews tend to follow a set of pre-planned questions in a set order. Semi-structured interviews are designed around an interview guide or checklist and are adapted based on the flow of the conversation. An unstructured interview

focuses on a topic of interest and lets the conversation develop in the area naturally. For this study the semi-structured interview style was chosen. The semi-structured interview style was chosen to provide a balance between following set questions and allowing new topics to emerge during the conversation.

Interviewing as a data collection tool is not without its critiques. Roulston (2019), explores the various concerns surrounding reliability of self-reported data, comprehension issues and misinterpretation of the interviewees and their perspectives. The asymmetry of power in an interview is discussed by Kvale and Brinkmann (2009), this idea stems from an interview being a situation whereby the interviewer has control over the questioning, topics of discussion and interpretation of data. To gain support and trust from participants the researcher must not be deceptive, it is important to communicate that the participants are taking part in a study and the purpose of the study (Creswell and Poth, 2018). All interviewees were informed thoroughly about the programme's involvement in the study (Appendix A).

I chose to carry out semi-structured one-to-one interviews for the purpose of this research study as it enabled more flexibility in the flow of discussion with the interviewees. The semi-structured interview uses a variety of open-ended questions, prompts and tools to engage the interviewee into the topic of the interview (Gallette, 2013). The interview process aligns with the mixed method data collection approach adopted for this study and the case study framework. Taking into consideration the critiques in the literature surrounding interviews, an interview guide was developed with questions and prompts that enabled the researcher to change the order of questions depending on the flow of the discussion (Appendix D). It was imperative to this study that data collected was interpreted as the participants intended, therefore a summary of the discussion was repeated to interviewees at the end of the interviews. This enabled interviewees to correct any data that may have been misinterpreted.

In phase one of the project, outlined in section 1.2.2 semi-structured group interviews were carried out with programme leads. Three group interviews were carried out in phase one

of the project, running these interviews helped to inform the design for this study. As a result of the first phase of interviews, I was able to identify areas in my interviewing skills that needed to be improved these included clarifying the questions and time management. Resulting in the further research into interviewing techniques to support richer discussions and prompting follow up questions.

One of the key areas that influenced the design of the interviews for this study was that the one-to-one format worked better. Originally for staff I had considered running focus group sessions, but seeing the one-to-one format working well I decided the semi-structured interview was a better fit for this study. It allowed for more in-depth conversation on the topics. Another area that was changed was the format of the interview. An interview guide (Appendix D) was designed with a bank of possible questions to be asked during the interviews. This helped to keep the conversation focused whilst also allowing for flexibility.

In this study six staff interviews were conducted, two from each of the programmes. An invitation was emailed to staff on each programme through the programme leads to seek volunteers for the interviews. Those who responded first to the invitation were chosen to be interviewed by the researcher and were emailed an information document about the interview and a consent form to fill out (Appendix E). The interviews were schedule for approximately thirty minutes and were carried out online via Microsoft Teams. Each interview was consensually recorded to allow for transcription. The reason for carrying out the interviews online was because it allowed for flexibility in scheduling and because the interviewees were based across three campuses. The interviewees were anonymised in the transcriptions the identifiers given to the interviewees are academic staff interview (ASI) 1 to 6, which will be used throughout chapter 4 and 5.

Each interviewee was asked to discuss their own experiences with various questions surrounding the areas of assessment, feedback, and academic integrity. All interviewees were asked to discuss what assessment methods and feedback practices they currently use and why these methods are used, and to discuss their experience managing academic integrity

on assessments. For each of the topic areas the follow-up questions varied depending on the answers given as a result of the semi-structed interviewing format.

3.4.5. Focus Groups

A focus group is described as a small group of individuals with similar characteristics chosen from a wider population, assembled to give their views, attitudes or experiences on topics relevant to the study (Menter et al., 2011). This method of data collection is considered to be highly effective for collecting qualitative data. Focus groups can be used to further explore and gain understanding from themes emerging from other qualitative responses/data collected (Robson & McCartan, 2016).

Conducting focus groups can have many benefits in a research study. Having a group dynamic helps to focus the important topics and discover whether there are shared views or differing perspectives. Participants can share their own views and can be motivated to share more information, because of hearing others share their views. Those who may be reluctant to be part of a one-to-one interview can feel more comfortable in a group situation (Robinson, 1999, pp.909-10; Robson & McCartan, 2016). Acocella (2011), argues that in order to facilitate interaction in a focus group, the facilitator should aim to create a comfortable environment, where participants can feel free to share their opinions and experiences.

Menter et al., (2011), argues that although there are many benefits, there are some limitations that need to be considered. Due to limited numbers of participants in a focus group, it is difficult to generalise the results as they are a small representative of the wider population (Menter et al.,2011; Robson & McCartan, 2016). Simons (2009), highlights the concern for generalising regarding case study research (Section 3.2.2), and discusses that the aim is to understand the case itself rather than generalising. Similarly, understanding the participants experiences is the purpose of the focus groups rather than generalising their experiences. Robson and McCartan (2016), emphasises the importance of having a ‘well managed’ focus group. This is to ensure that all participants are giving the opportunity to share their viewpoints and to prevent individuals dominating the session with only one viewpoint.

This method was used after the questionnaire stage, students were asked to volunteer to participate in the focus group sessions. A set of qualitative questions were developed in response to the initial analysis of the data from the student questionnaire and linked to the aim and objectives of the study. These questions encouraged participants to give honest opinions and discuss their own experience. The design of the focus group took into consideration the limitations discussed by Menter et al., (2011) and Robson and McCartan (2016). A focus group guide was developed in advance to set out the questions and follow up questions (Appendix F). This process was designed to keep the discussion on the topics relevant to the study.

To recruit students for the focus groups, the final question of the questionnaire asked students if they would like to volunteer to take part in the focus groups. Alongside this programme leads asked for student to volunteer from each programme. In advance students were provided with and information sheet and consent form to fill out (Appendix G).

The focus group sessions were held over Microsoft Teams and consensually recorded to enable transcriptions after they had finished. All participants were required to give their consent to enable the recording. Only the audio was analysed from the focus group therefore there was no analysis of non-verbal cues. Participants were advised to use the hands up feature in Microsoft Teams when they wished to answer a question or add to the views of fellow participants. Participant's identities were changed into a coded system, to keep the data anonymous. For the purpose of the study the code used is focus group (FG) followed by the number of the focus group, followed by the participant number e.g. FG1P1 is focus group one participant one. The coded system is used for quoting student from the focus groups in chapters 4 and 5.

3.5 Thematic Analysis

Reflexive thematic analysis (RTA), is an accessible and flexible approach to interpreting qualitative data that enables identification of patterns and themes from the data (Braun and Clarke 2021, as cited in Byrne 2021). Although the thematic analysis on qualitative data is widely discussed within the academic literature, Braun and Clarke's (2006) six-step

framework has been used in this study. I decided to use this approach as it provides a structured yet flexible approach to analysing data, which is important for capturing the key insights of this research study.

This framework provides a clear step by step (Table 3) approach to data analysis. It consists of six steps: Familiarisation of data, generation of initial codes, search for themes, reviewing themes, defining themes, and writing up of the report. The aim of thematic analysis is to identify and make sense of patterns within the data resulting in the generation of themes and sub-themes. The analysis is informed by ‘paradigmatic, epistemological, and ontological assumptions’ of the researcher (section 3.2.1) (Braun and Clarke, 2022).

Following this approach, the first step was to become familiar with the data. This involved reading the data from the desk analysis, both the student and academic staff questionnaires, and the transcripts from the focus groups and interviews whilst listening to the recordings and repeating this process until I was ready to begin step two. The next step was to generate the initial codes, this involved going through the dataset and identifying possible codes from the information. I completed this step by open coding the data through NVIVO.

Once the initial codes were identified I then began to explore the data and identify patterns that link in with each code to create initial themes. After completing this step, I then began to review the themes and to see if they were comprehensive and covered each pattern that came through in the data set. Within each theme I chose quotes that best represented the themes from the data for each section. Once the themes were identified and confirmed I then added my definition (Table 9) for each theme to give clarity and insight to each. The final step was to complete the write up analysis to compile the data with the sub-themes and themes (section 4.1 & 4.2).

Table 3.

Six Phases of Reflexive Thematic Analysis Braun and Clarke (2022).

Phase	Description
(1) Familiarisation with dataset	Involves going through data multiple times to become familiar with the information to identify meaning, this is done through reading and revising your data and listening to recordings.
(2) Generating initial codes	This process involves working through the data to identify segments of data that appear to be interesting, relevant or meaningful for the research questions.
(3) Generating initial themes	This phase is to start identifying codes that share patterns or meaning, identifying areas of similarity and grouping them into initial themes.
(4) Developing and reviewing themes	Following the initial generation of themes, this phase involves reviewing themes to ensure that they accurately represent the data. This is done through checking that the themes make sense in relation to the coded extracts and the entire dataset.
(5) Refining, defining and naming themes	At this phase, each theme is defined and named.
(6) Report	Write up of clear thematic analysis of data.

(Adapted from Braun and Clarke, 2022. p.35 & 36)

3.6 Research Ethics

This section outlines the ethical considerations and practices adhered to throughout this research study. Prior to commencing this research study, I applied for ethical approval through ATU. In the application the proposed plan for this study was outlined, this included the aim and objectives, data collection tools, potential risks and risk management, supervisory team, and the programmes that were involved in the study. Following the submission of the application, ethical approval was granted on the 16th of February 2023 (Appendix H). Before starting the data collection process consent forms (Appendix E & G), and participant information sheets (Appendix A, E & G) were shared with participants to ensure they have a clear understanding of the study. Conducting research involving academic staff and students across three programmes involved collecting data through semi-structured interviews, questionnaires, and focus groups. This involved taking up valuable time for both academic staff and students on the programmes. I was mindful of this in designing the data collection tools and arranging the timing of the data collection process, to ensure that it would cause minimum disruption.

3.6.1 Validity and Reliability

This study explores the student and academic staff experiences with assessment, feedback, and academic integrity across three programmes. The data collected through the interviews, questionnaires and focus groups is self-reported and relies on the participants providing data that is on their own experiences.

The study focuses on the experiences of students and academic staff from three programmes within a Technological University and therefore only gives a glimpse into the experiences with assessment, feedback, and academic integrity on these programmes. Although the data collected is specific to the programmes directly involved in the study the findings are beneficial across the entire institute, and HE sector.

A key strategy for ensuring validity and reliability in this study was using the mixed methods approach to data collection (section 3.2.2), this facilitated the triangulation of the data

from various sources. By combining qualitative and quantitative methods and questioning this helped to reduce the biases from relying on only self-reported data. Additionally, by using multiple methods of data collection (section 3.4) the study was able to capture a broader understanding of the experiences of students and staff in relation to assessment, feedback, and academic integrity, providing a more comprehensive and detailed analysis.

3.6.2 Power Dynamics

This section addresses the considerations taken to manage power dynamics between the researcher and participants. The power dynamic issue between the researcher and study participants is low as I am external to each programme. However, it is important that it is acknowledged. Although I am external to the programmes, the findings from the data collection process will be analysed and were either anonymised on collection (Interviews and focus groups – Section 3.4.3 and 3.4.5) or collected anonymously (Questionnaires – Section 3.4.4) and shared with academic staff to enable them to view the feedback from their students. Informing students of this process and giving them the opportunity to retract any information they would not feel comfortable sharing, was important to the researcher.

The students were also informed that this study would have no impact on their grades or relationship with academic staff, as the researcher would ensure that they could not be identifiable from their responses.

3.6.3 Ethical Practices

Consent.

Participation in this study is completely voluntary for both students and academic staff. Ensuring that participants are fully informed about the research aims, methods and how the data will be used is an important aspect in this study, prior to getting their consent. As participants personal experiences will be examined within this study from the questionnaires, interviews and focus group sessions, their consent was received prior to commencing (Appendix B, C, E & G).

When designing the questionnaires, an information section was created to inform the participants about the study and why this study is being undertaken. They then were given the option to consent to their information being used. For the focus group sessions, participants gave their consent at the beginning of the session and agreed to have the session recorded for the purpose of the session being transcribed and the data being used in the study.

Data protection.

All data collected through this study was either anonymised on collection (Interviews and focus groups – Section 3.4.2 and 3.4.5) or collected anonymously (Questionnaires – Section 3.4.3) The purpose of this is to ensure the identity of all participants is protected. The questionnaires were designed to ensure the identity of the participant was not detectable. When analysing the data from the questionnaires, focus groups and interviews any information that could identify a student or staff member was removed. Identifiers include information such as names of students or academic staff, titles of specific modules which could lead to the identification of academic staff, or any personal details given by students or academic staff. When conducting the focus group sessions, participants were informed to not discuss names of any individual person and if they were to identify anyone that this would be erased to protect the identities.

The data collected will be stored on ATU's secured access network. Only the research team will have access to the dataset. This data is stored on password-protected computers and folders in ATU, and compliant with GDPR recommendations. The focus group and questionnaire dataset will be accessible only by the project research team. This dataset will be stored for a minimum of 3 and a maximum of 7 years, at which point it will be deleted.

3.7 Chapter Summary

Chapter 3 outlines the research paradigm, the methodological framework, and the data collection processes adopted in this study. I decided that a combined pragmatic and constructivist philosophical stance was the best approach to meet the aim, objectives and research questions. A mixed methods framework was chosen for the data collection process. Both qualitative and quantitative data were collected through a desk analysis, semi-structured interviews, questionnaires, and focus groups, with both academic staff and students on each programme.

A case study framework was chosen for this study, focusing on an intrinsic approach to analyse the data from the three programmes as a single, collective phenomenon within the Technological University. By combining the data, the study aimed to explore the shared experiences from students and staff from these programmes rather than comparing them to each other. The Reflexive Thematic analysis approach was used to analyse the data from the data collection process. Chapter 4 presents the findings from the data that was gathered and analysed as outlined in this chapter.

Chapter 4: Research Findings

Introduction

This chapter presents the findings from the data analysis as outlined in Chapter 3. The data collected has been aligned with the aims and objectives (section 1.1), research questions (section 1.1.1) and research methods (section 3.4). The findings from the analysis are discussed under two key headings: the student experience and the academic staff experience.

The reflexive thematic analysis of the qualitative data has enabled the creation of themes and subthemes. Section 4.1 explores the findings from the student experience and is divided into three sub-sections: assessment methods, receiving feedback on assessments, and understanding and supports for academic integrity. The next section, section 4.2 explores the findings from the staff experience, also divided into sub-sections which include: assessment methods and feedback practices, staff views on the impact of assessment methods, staff experience with giving feedback on assessment, and staff experience with managing academic integrity. For each subsection in section 4.1 and 4.2 the data is presented with the quantitative findings from the questionnaire first followed by the qualitative findings from the questionnaires, student focus groups or staff interviews. The final section, section 4.3 highlights the key findings from the data and analysis.

4.1 The Student Experience

This section presents the students' experience with assessment methods, receiving feedback on assessments, and understanding and supports for academic integrity. Data was collected through a student questionnaire (n=65) (section 3.4.3), representing 43% of the student population for these programmes (n=151) and three student focus groups (section 3.4.5). Within the student questionnaire, the breakdown of respondents is: 20% (n=13) from Programme One, 68% (n=44) from Programme Two, and 12% (n=8) from Programme Three. Table 4 shows the demographic details of the respondents to the questionnaire. The details included in this table are the age range of students, year of study, gender, and previous academic qualifications.

Table 4.

Students Demographics from Questionnaire.

Student Demographics	
Age Range	**Percentage (number of responses)**
18 - 22	49% (n=32)
23 - 27	17% (n=11)
28 - 32	6% (n=4)
33 - 37	8% (n=5)
38 - 42	6% (n=4)
43 - 47	9% (n=6)
48 - 52	3% (n=2)
53+	2% (n=1)
Year of Study	**Percentage (number of responses)**
Year 1	9% (n=6)
Year 2	9% (n=6)
Year 3	37% (n=24)
Year 4	37% (n=24)
1 Year Top up	8% (n=5)
Gender	**Percentage (number of responses)**
Male	44% (n=29)
Female	54% (=35)
Prefer not to say	2% (n=1)
Previous Academic Qualifications	**Percentage (number of responses)**
Yes	35% (n=23)
No	65% (n=42)

Table 4 shows that the majority 66% (n=43) of respondents to the questionnaire were aged between 18 and 27. Additionally, 74% (n=48) were in years 3 and 4 of their programme of study. In terms of gender representation for the questionnaire, there was an almost even split as shown above. The final area shown in the table refers to the previous academic qualifications of students on the programmes. 35% (n=23) of students have previous academic qualifications, the breakdown for each of the programmes are: Programme One (n=12), Programme Two (n=5), and Programme Three (n=6). Programmes One and Three have the majority of the students having previous academic qualifications.

4.1.1 Assessment Methods

All students who responded to the questionnaire (n=65) reported encountering various assessment methods in their programmes of study. When asked about their satisfaction with the variety of assessment methods, 82% (n=53) were satisfied. The 18% (n=12) who were not satisfied cited the volume and timing of assessments as the primary reasons. In response to their satisfaction with the timing and quantity of the assessments, 20% (n=19) of students answered that they were not satisfied with the timing. Suggestions to improve this from students included: better coordination between staff, more in-class based assessments such as MCQs and practical assessments, and allocating more time and marks to assessments that are more time-consuming.

A list of statements was presented to students regarding their overall experience with assessments (Figure 6). Students were asked to indicate how strongly they agreed or disagree with the above statements. The illustration shows that for each statement there were higher responses for strongly agree and agree. Five of the nine statements had over 80% of respondents either strongly agreeing or agreeing. The statements with the most positive responses along with the least responses for disagreement is that assessments have helped to support students' learning which has 86% of responses being strongly agree and agree, 12% of responses being neutral and 2% disagreeing. Although, all statements have more responses that agree, three statements have higher levels of disagreement than the others.

These statements are: activities/assessments that are not graded contribute to my learning (17%), I always understand what I am being asked to do for an assessment (28%), and the quantity/volumes of assessment was appropriate for the percentage allocated to the module grade (28%).

Figure 6.

Students' Responses to Overall Experience with Assessment.

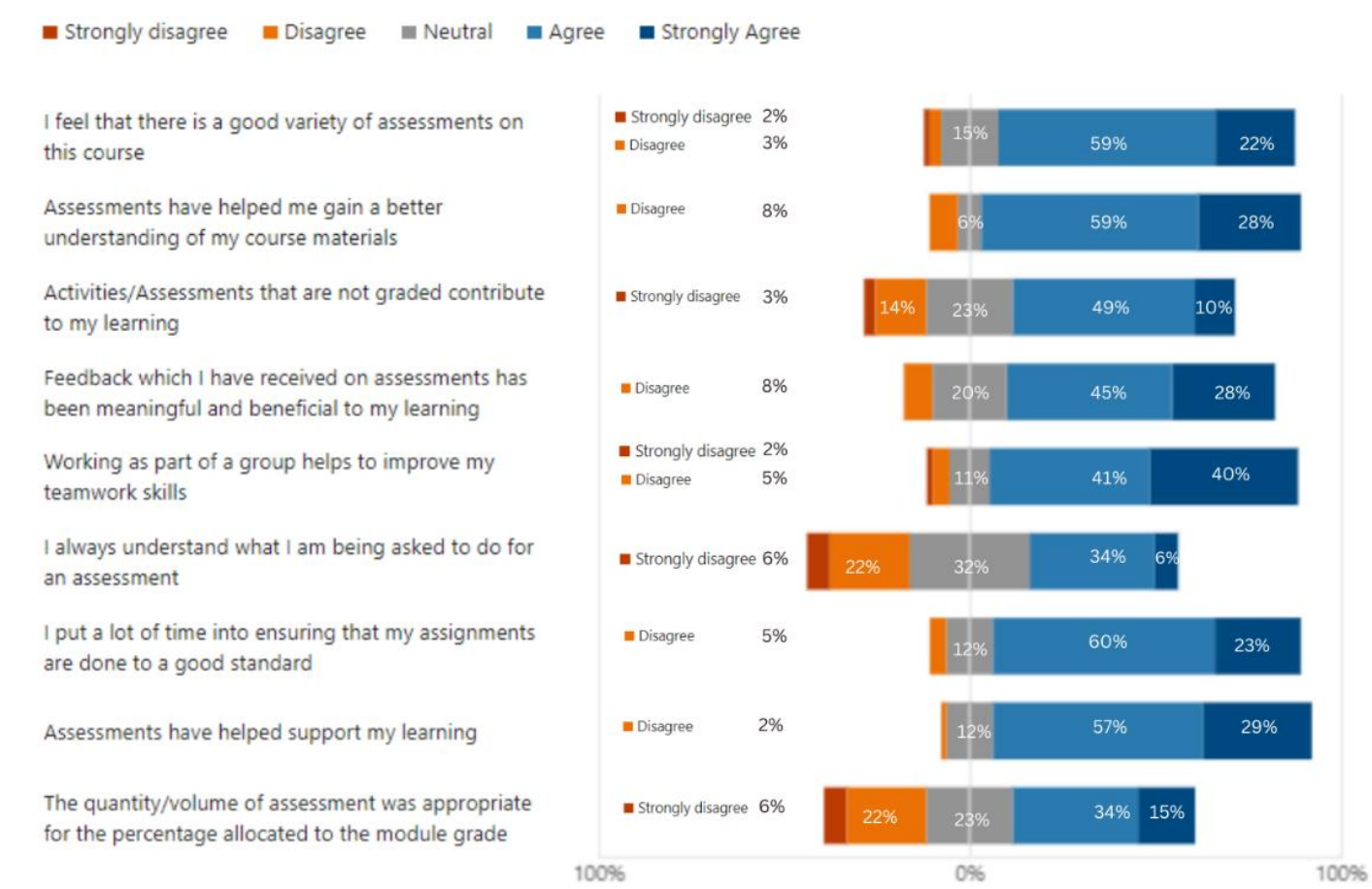


Figure 6 demonstrates that from the statements presented in the questionnaire, the responses were primarily agreeing or strongly agreeing. Notably, the two statements that had higher levels of disagreements were in relation to students not always understanding what they are being asked to do for an assessment and the quantity/volume of assessments was not appropriate for the percentage allocated to the module grade.

Respondents to the questionnaire were presented with a list of twenty assessment types. For each assessment type, they were asked to rate their level of satisfaction of how that type of assessment assesses their understanding of a subject/module. The scale ranges from very dissatisfied to very satisfied. There were six options on the scale: very dissatisfied, somewhat satisfied, neutral, somewhat satisfied, very satisfied and haven't completed this form of assessment (Appendix B). Figure 7 and Figure 8 show a summary of responses to this question, Figure 7 shows the five assessment types that had the highest level of satisfaction and Figure 8 shows the five assessment types that had the highest responses for dissatisfaction.

Figure 7.

Assessment Types with the Most Responses for Very Satisfied and Somewhat Satisfied from the Questionnaire.

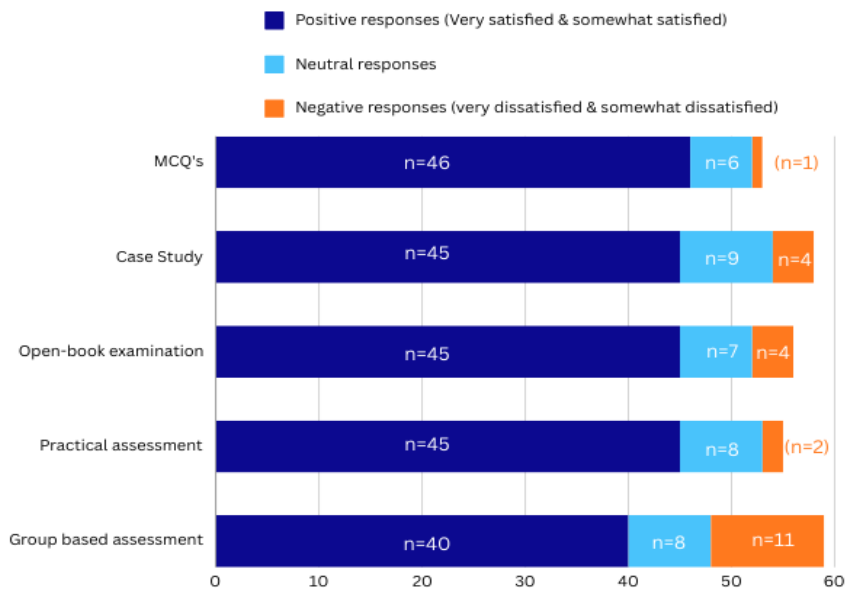
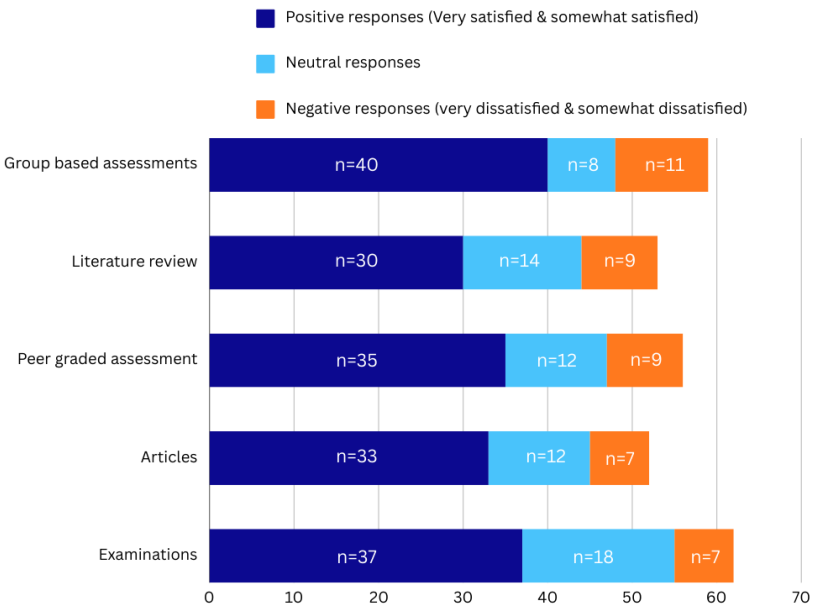


Figure 8.

Assessment Types with the Most Responses for Very Dissatisfied and Somewhat Dissatisfied from the Questionnaire.



Appendix I shows the full list of assessment types in a diagram. The five assessment types identified with having the highest satisfaction levels also had very low dissatisfaction votes from students who have completed those forms of assessment. MCQs had the most responses for students being satisfied with it as a method of assessment, out of the 53 students who completed this type of assessment n=46 selected that they were either very or somewhat satisfied whilst only 1 person selected that they were dissatisfied, the remaining n=6 selected neutral.

However, on the opposite side those assessments that had the highest levels of dissatisfaction also had higher levels of satisfaction selections from respondents. The assessment type that had the most selections for dissatisfaction was the group-based assessment (n=11), as mentioned in the above paragraph this type of assessment also had high levels of satisfaction. Figure 7 and Figure 8, highlight that for each of the assessment

types listed in the questionnaire, the responses for students being satisfied with the types encountered outweigh the dissatisfaction levels.

When asked to further discuss the assessment methods the students had encountered, the results demonstrated from both the questionnaire and focus groups that these students prefer practical assessments, this is illustrated in the following two quotes:

> I like the more practical side of things, so like the presentations, I just find like it's easier to learn. FG3P4

> I prefer more workshops or tasks to be completed in task as a group, usually are more practical and are done once we are already in the class. SQ60 – 61:L

Additionally, a preference for completing assessments that enable students to learn and work with their peers and in groups was identified. The following quote illustrates preferring assessments such as forum participation whereby students are given the opportunity to share opinions with their class group.

> I do like the forum participation as well. We get marks for some of that. You know where you get other people's opinions and, am, you might learn something that you didn't know before, you know where you don't get that in an exam, you don't get it in am you know something that isn't shared. FG2P1

In contrast to this, the findings demonstrate that more formal assessments and written examinations are less preferred by these students. The reasons given to support this are that these forms of assessment require formal academic writing, and they require students to learn off information and to recreate it in a formal setting.

> I don't really like report writing because just trying to have like a formal way of writing and just the type of language you have to use. FG3P2

> Not a fan of written exams where you are expected to learn off huge amounts of information word for word and throw it down on paper knowing full well you'll forget it all within weeks. SQ22 – 21:J

Another topic raised in a focus group session by students was a desire to have more information about assessments. This was discussed in two separate ways, two students expressed a desire for more context and information surrounding why they are being asked to do these assessments, and another wanted more information on how to do them correctly, which is illustrated in the following quote “Giving us more information on like the assignments we do and the whole reason why we're doing it”. FG3P3

In the questionnaire, students were provided with a definition of authentic assessment (Appendix B) and asked to report if they had experienced any assessments that they thought were ‘authentic’ and to give details of these assessments. 72% (n=47) reported having completed assessments that they considered to be authentic.

When asked to describe these assessments, a variety of authentic assessments were listed from students including carrying out risk assessments, preparation of safety statements, presentations, groupwork assessments and assessments relating to enquiry-based learning (EBL). The comments below showcase the students identifying what they believe to be authentic assessment methods and explaining how they help to prepare them for their future careers.

> Enquiry Based Learning (EBL) assignments given real life scenarios and have to come up with solutions. SQ15 – 16:BD

> Groupwork assessments, working with other students help you prepare before going out to the workplace. SQ20 – 21:BD

> Presentations - will be used every week in my potential future career in the form of meetings toolbox talks, and chairing presentations. SQ21 – 22:BD

Many students reported that timing was a significant challenge when it came to assessment. The suggestions made to improve this area are to allow more time for assessments that are time consuming, better communication between staff and more structure to assessment scheduling.

> Little more time for me when having to complete a lot of typing against the clock. When completing multiple modules, sometimes the written assessments or projects can be due around the same few days or weeks so maybe spread them out a little more. SQ55 – 56:BO

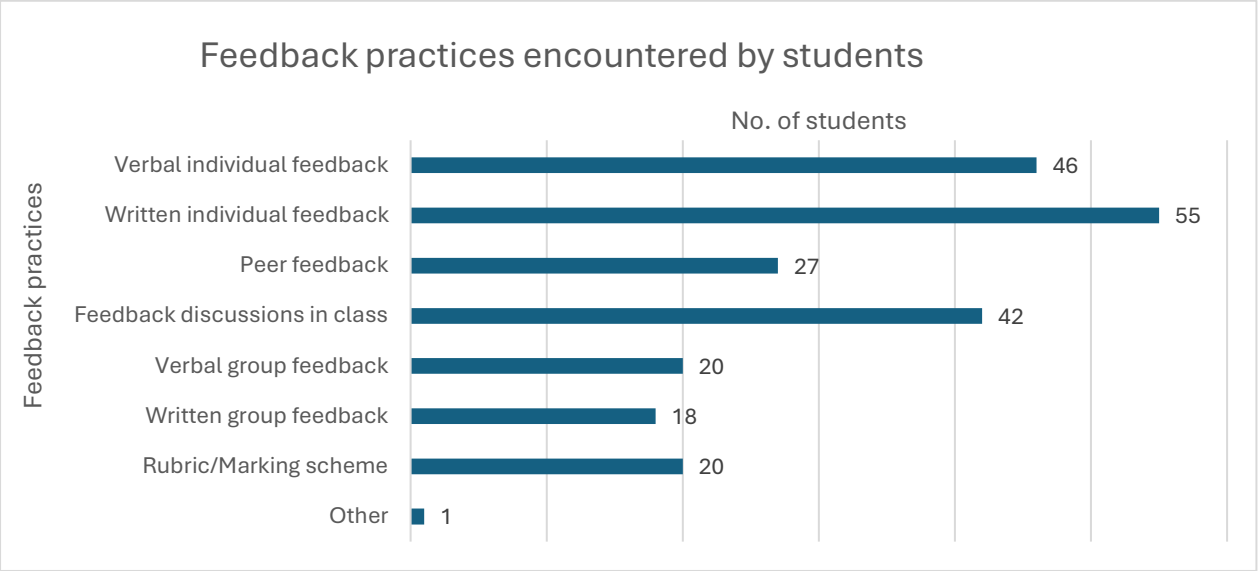
Whilst exploring the area of students' experience with assessment, key categories became evident. These themes are the need for improvements with timing of assessment, preference towards practical assessments which involve group work and real-life scenarios, and improving communication around the context of assessments. Section 4.1.2 presents the findings from students in relation to receiving feedback on assessments.

4.1.2 Receiving Feedback on Assessments

The following section presents the findings from the student questionnaire regarding students' experiences with receiving feedback on assessment. To identify what feedback practices students had encountered within their programmes, students were presented with a list (Figure 9) and asked to select all the feedback methods they had encountered. It is evident from Figure 9 that the three most common feedback practices encountered by students are written and verbal individual feedback and feedback discussions in class.

Figure 9.

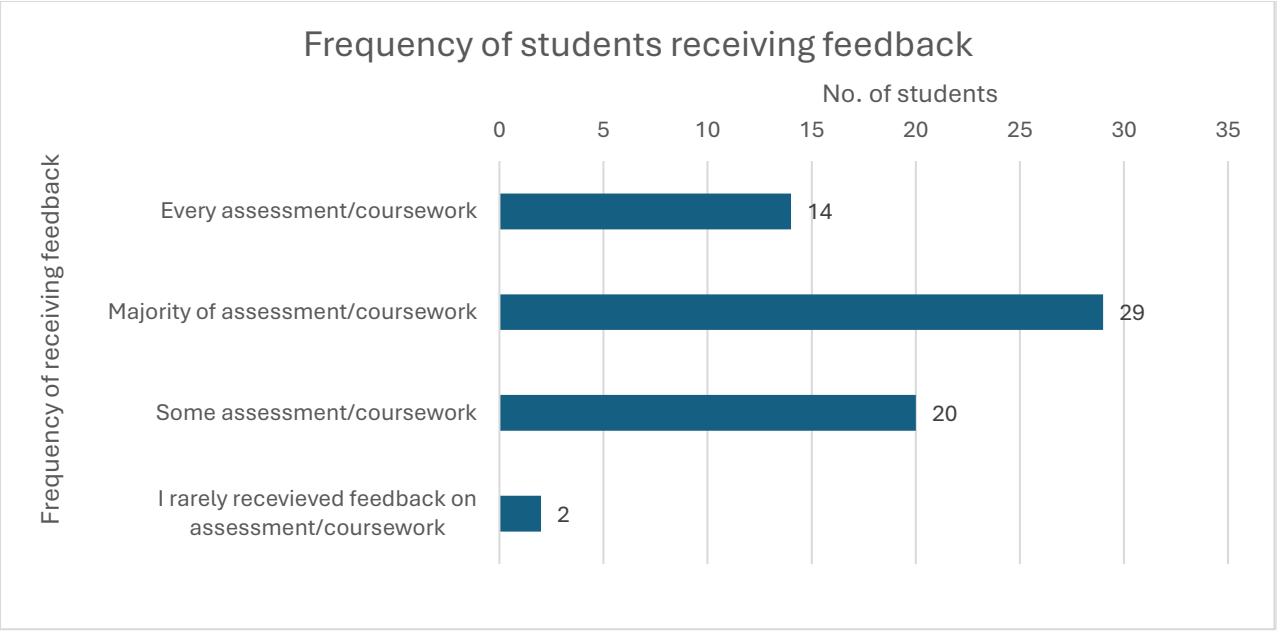
Feedback Practices Encountered by Students.



In addition to identifying what feedback practices students have encountered, the frequency of receiving feedback on assessments was asked (Figure 10).

Figure 10.

Frequency for Students Receiving Feedback on Assessments.



As illustrated in Figure 10, 66% of students (n=43) responded that they either receive feedback on every or the majority of assessments. With regards to the students who indicated that they rarely receive feedback on assessments, both are from the same programme and same year. However, other students in the group reported that they receive feedback for some or the majority of assessments.

Students were asked to identify which timeframe the generally receive feedback on assessments in (Figure 11).

Figure 11.

Timelines for Students Receiving Feedback on Assessment.

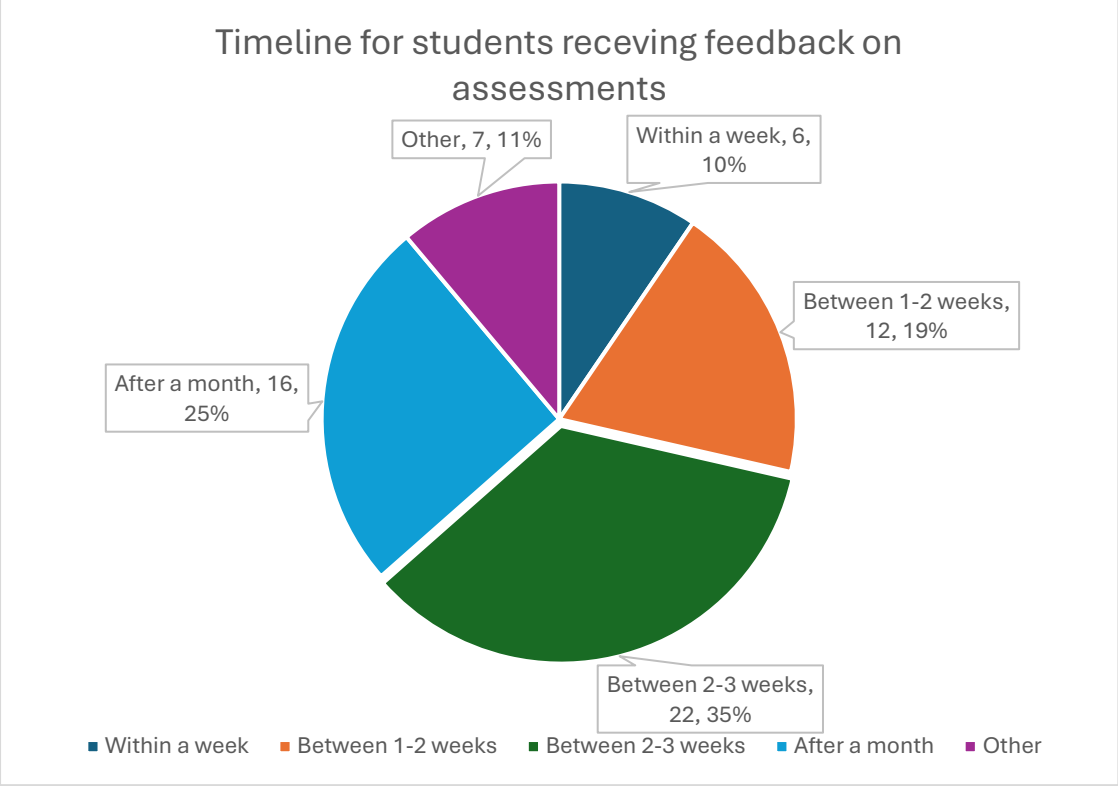


Figure 11 illustrates the responses to the timeframes in which students receive their feedback, 29% (n=18) students indicated they receive feedback between one to two weeks, whereas the remainder indicate that their timeframe is greater than two weeks.

To explore the topic of feedback further and to gain more insight for students, a question was asked in the questionnaire about what their preferred timeframe for receiving feedback was and why. Although the answers were varied with specified time frames, the consensus is that students would like to receive feedback as soon as possible after completing the assessment, with some specifically mentioning that their preference would be to have it before finishing the next assessment. The reasons given for this preference is that if feedback is given too long after an assessment, they do not have the opportunity to make improvements and they have also moved on from this assessment and it is not fresh in their minds.

> I would like to receive feedback within two weeks as loses its importance in my opinion. SQ34 – 35:AW

> As soon as possible and I can learn where my mistakes are before starting another assignment/assessment. SQ12 – 13:AW

> It is sometimes too late when the feedback is given. SQ14 – 15:AW

To get further insight into their experience with feedback in both the questionnaire and focus groups students were asked to make suggestions to help improve feedback on their programmes. One of the key suggestions made by students is that feedback should be more timely, and another reoccurring suggestion was to include more one-to-one individual feedback “more one-to-one lecturer feedback as it allows the students to ask questions if they're unsure of anything”. FG3P1

Other suggestions include more communication between lecturers to avoid any contradictions in feedback, simplifying the language used, having it more structured, and giving more written feedback that students can refer back to. Lastly, incorporate more positive feedback, “commend students for what they do well”. SQ22 – 23:AX

In summary, a key area for improvement in relation to feedback is the timing of feedback. Additionally, many students expressed a desire for more personalised and one-to-one feedback.

> More one on one and that like the lecturers have no problem, even if you know electronical that they'd meet up with us anyways, to discuss our grade and why we got it and how we can improve it. FG3P3

Section 4.1.3 explores students' understanding of the term academic integrity, their awareness of resources available to support them, and suggestions for improving communication.

4.1.3 Understanding and Supports for Academic Integrity

In the questionnaire students were asked to indicate if they felt that they have a clear understanding and know their responsibilities regarding academic integrity. To which 66% (n=43) responded that yes, they had a clear understanding and know their responsibilities. In addition, students were asked if they feel that other students have a clear understanding of what is expected of them in terms of academic integrity, to which 52% (n=34) responded with a yes, whereas 48% (n=31) responded with a no. Another key area was assessing students' awareness of university resources on academic integrity. In response, 66% (n=43) reported being unaware of these resources. The following section presents the findings in relation to this topic area.

One of the main aims when researching students' experience with academic integrity, was to assess their understanding of the term itself. This was done by giving participants the following question "*In your own words, please describe what you believe the term Academic Integrity means and discuss your understanding of the term?".*

Table 5 below gives an insight of the various categories of responses given to the question on students' understanding of the term academic integrity and understanding of responsibilities. Presented in this is the results of the thematic analysis (section 3.5) of these responses which have been arranged into categories. These are presented as categories rather than themes to highlight the different ways that individuals interpret the term academic integrity. This approach helps to organise the data into collections of responses with similar characteristics.

Table 5.

Categories of responses given to the question on students understanding of the term academic integrity.

Category	Description	Related Quote	No.
Cheating, Plagiarism and Referencing.	A common description given for the term academic integrity referred to focusing on cheating, plagiarism and referencing.	"I think it means that you have to always complete your own work to your own best standard. no copying or copying and pasting others work and also referencing all work completed. SQ7 – 8:BF	n=12
Honesty, Integrity and Fairness.	In this category students described their understanding of academic integrity relates to students being honest, having integrity, trust, respect, and responsibility.	"That all students, teachers, lecturers etc. act with honesty, integrity, fairness in your studies and academic work. Apply this to your work and when you engage with the work and contributions of others". SQ55 – 56:BF	n=12
I Don't Know/ Unsure.	The next category is for the students who responded that they don't know or are unsure of what it means.	"Unsure what it is". SQ50 – 51:BF	n=12
Classroom Etiquette	In this category students discussed their	"Respectful behaviours regarding everything that involves the learning	n=8

and Respect.	understanding of academic integrity to be relating to behaving in the classroom, during lectures and being respectful to each other.	system such as classes, students, lectures. SQ60– 61:BF	
All your own work.	The next category refers to students identifying their understanding of the terms to be relating to ensuring that the work they present is all their own.	"That the work I present or submit is all my own work and is not completed by someone else. I can stand by my own work." SQ61– 62:BF	n=7
Other.	The final category present here is other as there are 7 smaller categories identified.		n=14

The final category identified in Table 5 is titled as other, this category has 4 other smaller categories and 3 statements that were left uncategorised. These 4 smaller categories include ethics (n=4), expectations from lecturers (n=2), preparation for future work (n=2), and academic capabilities (n=3). Furthermore, that 3 statements left uncategorised are that academic integrity means fair education for all, meeting deadlines and completing work in a manner.

The students who responded yes to being familiar with resources available in the university listed out a variety of resources when asked to discuss. These include: an academic integrity badge on the VLE (Virtual Learning Environment) , academic writing centre, library

resources, university website, the student's union, and emails on the topic. The following quote demonstrates that some students are familiar with the resources that are available, "libraries have ample literature on academic integrity and the lecturers also give time to this subject". SQ64 – 65:BK

To address research question 4 (section 1.1.1) of this study is to identify how challenges in terms of assessment, feedback, and academic integrity can be overcome. When asked for suggestions to improve communication and understanding of academic integrity, 49% (n=32) of respondents indicated they had no suggestions. Furthermore, 9% (n=6) responded with no but followed this statement with stating that they think the lecturers and university are already providing enough information which is highlighted in the following quote: "Our lecturers are quite clear on our responsibilities with academic integrity". SQ58 – 59:BK

The remaining 42% (n=27) of responses suggested a variety of ways to improve communication. These suggestions include incorporating it more into class and discussions and providing refreshers yearly (n=11), clearly explaining, providing rationale and making it known to students (n=5), providing online courses, training, exams and having information available in the library (n=5), sending emails and putting up posters (n=2), and more opportunities to practice referencing (n=1). One respondent stated that as part of an evening course they "don't worry about things like that". Another respondent identified what they believe to be the main rule, which is shown in the following quote, "one rule, even a poor piece of work by you is better than plagiarism". SQ56 – 57:BK

In addition to these suggestions, participants in focus group 3 suggested an informative video that educates students on academic integrity that can refer back to as needed, as highlighted in this quote "a video, they can just access at any time yourself. If you got forgetful and pointers as well of how you can use how to reference properly". FG3P3

Finally, in relation to academic integrity there are diverse suggestions made by students. Some have highlighted that their opinion is that there is already a lot being done to educate students. However, others suggest incorporating more discussions during class,

giving a lecture about it at the beginning of each year, making students more aware of resources available and the creation of a video or similar resource that students can look back at.

> A presentation or something done at the start of every year for the modules because I know it's mentioned under the academic writing badge, but there was a lot of reading and a lot a lot to the academic writing badge that I know a lot of people just skim read it to try and get it done.
>
> So I think it presentation at the start of year would be very beneficial for students.
>
> FG3P2

This section presented the findings in relation to the students' experiences with assessment, feedback and academic integrity within the three programmes. The findings demonstrate that while the majority of students are satisfied with the variety of assessment methods they encounter, they are less satisfied with the timing of assessments. Students expressed a preference for practical, group-based assessments over formal exams and highlighted the importance of timely feedback to support their learning. Furthermore, the findings show gaps in students' understanding of academic integrity and awareness of available resources.

The following section presents the findings in relation to the academic staff experience. This section will explore their experiences with using various methods of assessment, the ways they give feedback to students, the challenges they face regarding giving feedback, and their understanding and management of academic integrity.

4.2 Academic Staff Experience

This section presents the academic staff experience with using various methods of assessment, giving feedback, and teaching and managing academic integrity. The data for this section was collected through a staff questionnaire (n=23) which represents a response rate of 70% (n=33) of staff teaching on these programmes and six individual semi-structured interviews with two members of academic staff from each programme. Table 6 shows the demographic details from the respondents to the questionnaire. The details included in this table are gender, years of teaching experience, formal teaching and learning qualifications, teaching experience in other universities.

Table 6.

Academic Staff Demographics from Questionnaire.

Academic Staff Demographics	
Gender	**Percentage (number of responses)**
Male	35% (n=8)
Female	65% (n=15)
Years Teaching Experience	**Percentage (number of responses)**
Less than 5 years	35% (n=8)
5 – 10 years	8% (n=2)
10 – 19 years	22% (n=5)
20+ years	35% (n=8)
Formal Teaching and Learning Qualifications	**Percentage (number of responses)**
Yes	39% (n=9)
No	61% (n=14)
Teaching Experience in Other Universities	**Percentage (number of responses)**
Yes	39% (n=9)
No	61% (n=14)

From the demographic information in Table 6, it is evident that 57% (n=13) the respondents have over 10 years teaching experience with 35% (n=8) having over 20 years. Whilst a further 35% (n=8) have less than 5 years' experience. In addition to this staff were asked if they had completed any formal teaching and learning qualification, to which 39% (n=9) that they have. The breakdown for the formal teaching and learning qualifications per programme are Programme One (n=5), Programme Two (n=1), and Programme Three (n=3). Additionally, staff were asked to list their academic qualifications, there were five fields of study identified. These were science and engineering, business and management, education, healthcare, and law. These categories illustrate the diverse expertise within the academic staff.

4.2.1 Assessment Methods and Feedback Practices used by Academic Staff

The initial step in the data collection process for staff was to get each of the programme teams to fill out a desk analysis (section 3.4.2). This consisted of populating an excel sheet with details of the various assessment methods used for each module. The data captured included module title, stage of the programmes, assessment types, a description and grade weighting for the assessments. This provided a comprehensive overview of the various methods of used on each programme. With each of the three programmes being different in their delivery styles, one completely online, one blended and the final being on-site in person. There is evidence of diverse methods in use across the three programmes.

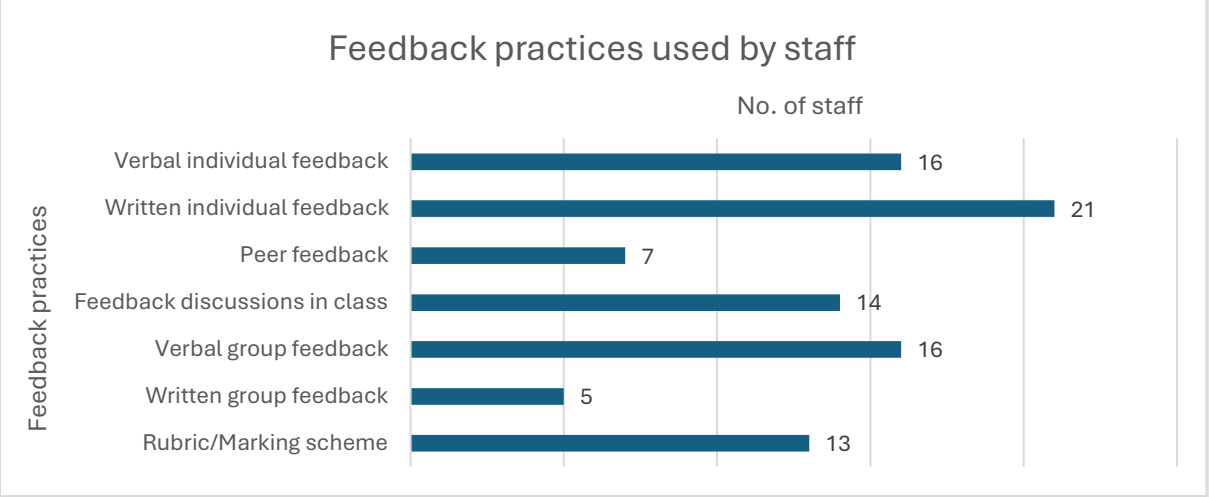
To further expand on this, staff were asked if they offer a variety of assessment methods on the modules they teach, 100% responded with yes. They were then asked to expand on this and describe what methods they used. The following are the assessment types that appeared most frequently, the first is quizzes (n=19) this includes online, in-person, MCQ's and SAQ's. The next type of assessment is written assignments (n=16) these include essays, literature reviews, reports, lab reports and scientific reports. Presentations are the next most used (n=14), followed by case studies and scenario-based questions (n=10). Final written examinations were the next most common type of assessment (n=9), followed by video

creation (animation, TikTok's, and short videos) (n=8) and finally interviews/oral examinations/vivas (n=7). Although many other types of assessment were listed these were the most common types.

In terms of giving feedback staff were asked in the questionnaire to select which practices they have used for giving feedback (Figure 12). They were presented with a list of seven different types of feedback. As displayed in the figure the most common method used is written individual feedback which is used by 91% (n=21) of academic staff.

Figure 12.

Types of Feedback Practices used by Staff.



To get a deeper understanding of the above results during the staff interviews, the interviewees were asked to discuss what methods they use for giving students feedback. Staff shared the various methods they use and discussed giving students feedback at various stages of their assessments. Many of the methods mentioned have been previously highlighted in Figure 12, such as the written individual feedback and using a grading rubric with attached feedback. Alongside these staff discussed giving automated feedback on shorter assessments via the VLE, hosting teams calls, giving feedback on the spot during practice interviews or presentations, creating a general feedback list of common mistakes and using students' own reflections as a way of giving feedback.

The final practice on the list above of using students' own reflection as a way of giving feedback. This process is described in the following comment from an interview with staff.

> I get them to write a reflection on what they would do to improve, what they did well and what they did wrong. I said okay here is your reflection and I didn't mark it because it's just your reflection. There was no marks going for it. I want you to read it again now as we start this new scenario and take on board what you wrote down as your reflection, so I just put it responsibility back on the student. ASI3

The findings in this section demonstrates that staff teaching on these programmes are using a diverse range of assessment. The following section presents the findings in relation to academic staffs' views on the impact of different assessment methods on student learning and development.

4.2.2 Academic Staff Views on the Impact of Different Assessment Methods on Student Learning and Development

To get an understanding of the staff's experience and opinions on various assessment types, they were presented with a list of assessment types. Staff were asked to rank their level of satisfaction with how these methods assess a student's knowledge of a subject/module. This question format is the same as described in section 4.1.2 (Figure 7). Table 7 represents a section taken from a question in the staff questionnaire whereby staff were asked to select their satisfaction with how various assessment methods assess a student understanding of a subject or module. The scale ranged between very dissatisfied to very satisfied. However, in comparison to the student's version the responses for very and somewhat dissatisfied were very low.

Table 7.

Ten Assessment Methods with the Highest Staff Satisfaction Levels from Questionnaire.

Staff Satisfaction with Assessment Methods (Top 10)	
Assessment Type	**Satisfaction Percentage**
Literature Review	87% (n=20)
Presentations	87% (n=20)
Research Project	87% (n=20)
Case studies	87% (n=20)
Articles	78% (n=18)
Group Based Assessments	78% (n=18)
Oral Examinations	74% (n=17)
Practical Assessments	74% (n=17)
Examinations	70% (n=16)
Multiple Choice Questions	70% (n=16)

To delve deeper into this topic during the staff interviews, the interviewees were asked to explain in their own words what they would consider to be an effective assessment. Although the term effective is broad, this question was asked to get some perception into what this might mean to staff. Four out of the six interviewees discussed their view on what an effective assessment is by indicating that it allows the students to showcase and demonstrate what they have learned. As highlighted in the following quote: “An effective assessment is where the student gets to showcase how much they've learned”. ASI2

Another discussed preferring assessments that are based on the workplace and where students are provided with an opportunity to gather information and relay it back in class. The final interviewee described how their perception on what an effective assessment is that it focuses on the process rather than the product.

> I think something that that is ongoing, and it ensures that the process is being evaluated rather than that final product. ASI5

Furthermore, staff were asked if they offer authentic assessments in their modules that help prepare students for future careers, using the same definition as in Appendix C. In response to this 91% (n=21) responded yes. To explore this further, they were asked to list what assessments they thought were authentic and how they help prepare students for their careers and discussed this topic with staff during their interviews.

A range of examples of authentic assessments came through from the responses. Primarily the examples given consisted of case studies, relating assessment tasks to industry projects and deliverables, presentations, and practical assessments. The below quotes represent staff using their industry experience to align assessments with work-based activities.

> Case studies of work-based problems/scenarios where students put forward solutions based on legal requirements. Workstation risk assessments, manual handling assessments and training all in line with work-based activities. ASQ16 – 17:AU.

> The lecturers are all former/current X practitioners who use their experience to design scenarios which challenge students to work together to consider the best outcome, they have to work with all types of people, learn to negotiate, compromise and professional skills that will be required of them in the workplace. ASQ18 – 19:AU.

When exploring what potential challenges staff face in terms of assessment, the main challenge that has been identified are time constraints for staff from the questionnaire and the interviews. A number of challenges have been discussed regarding the sizes of programmes, time required to assess, mark and give feedback on each assessment and busy work schedule. In addition, two out of the three programmes are delivered part time whereby many of the students on those programmes are working full time whilst studying and staff acknowledge that time is a challenge for them also.

> Time is the one resource that we could all do with more of. ASI2

Another area highlighted by staff in relation to assessment is the importance of their own continuous development. Various ways for staff to be continuously developing that were discussed involve attending different training sessions, learning from their colleagues, and getting involved with projects. The following section presents the findings in relation to staffs' experience with giving feedback on assessments.

4.2.3 Academic Staff Experience with Giving Feedback on Assessments

In section 4.2.1 the different feedback practices used by staff were outlined, this section is going to further explore how often staff give feedback, what their views are on feedback, and challenges they face in relation to giving feedback.

Figure 13.

Frequency for Staff Giving Feedback on Assessment.

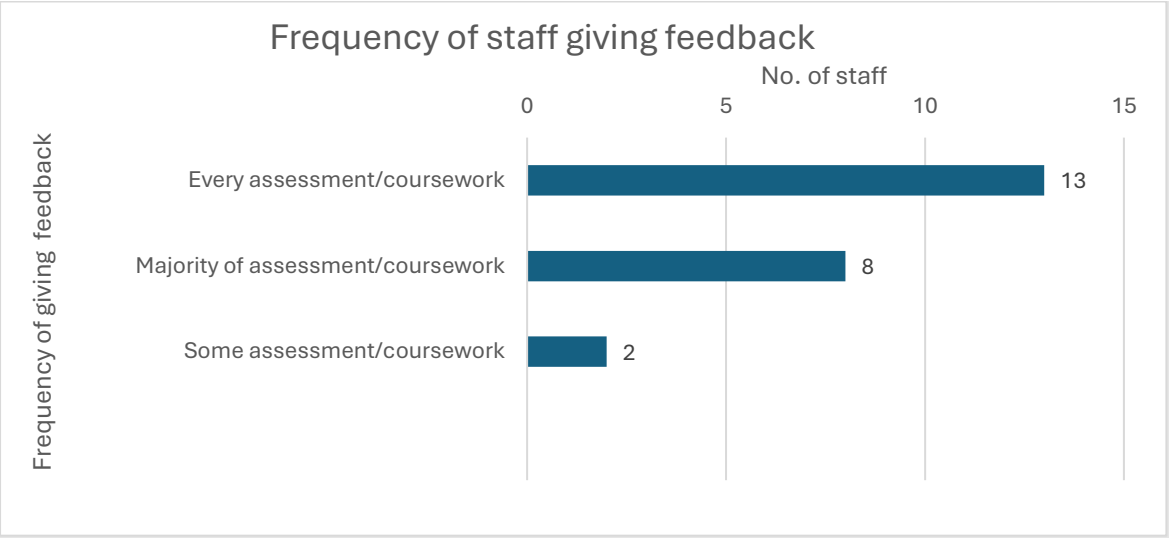
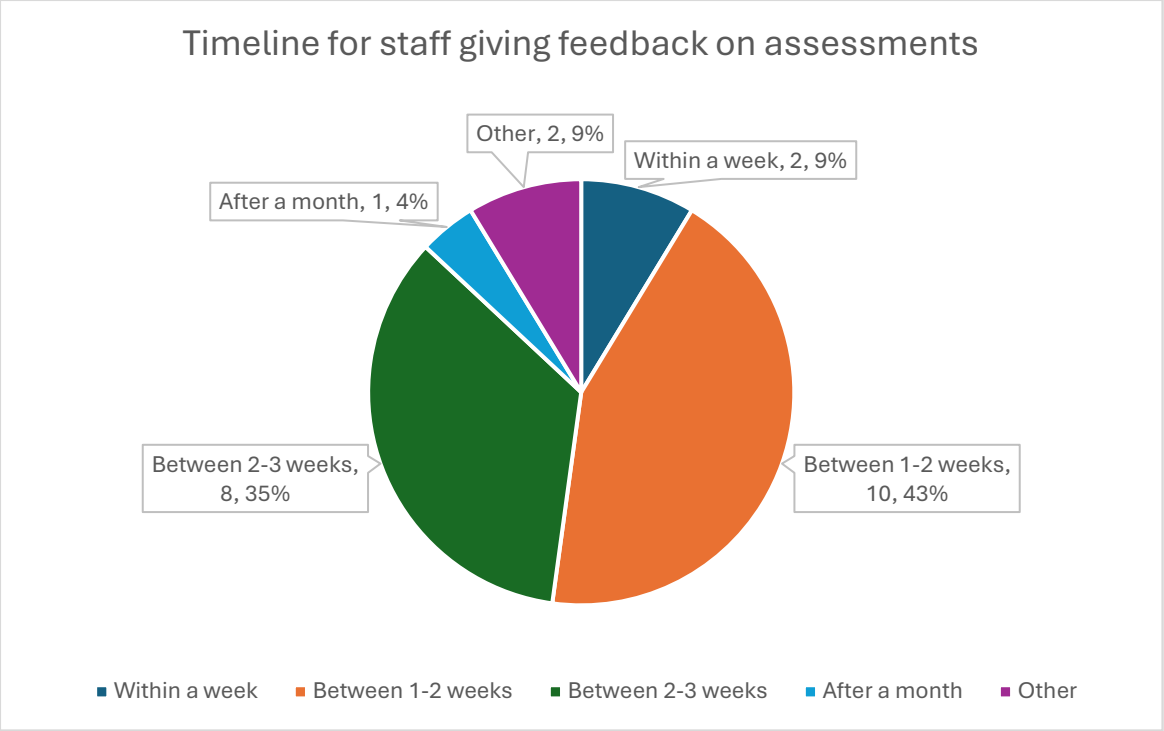


Figure 13 gives as illustration of how often the staff on these programmes give students feedback on their assessments. From this diagram 57% (n=13) state that they give feedback on every assessment, 37% (n=8) give feedback on the majority assessments and 9% (n=2) give feedback on some assessments. From the respondents it is evident that each member of staff gives feedback to students. Following on from this staff were asked if they think that giving feedback regularly enhances the student experience, to which 100% selected that yes, they do think this.

In addition to this staff were asked to select from a list of five options to indicate on average how long it takes them to give feedback on assessments (Figure 14).

Figure 14

Timelines for Staff Giving Feedback on Assessments.



From the initial viewing of the chart, it indicates that 87% (n=20) provide students with feedback within three weeks. However, when exploring those who responded with other their responses were within 1-3 days for one and for the other it varies between each week for 2-3 weeks.

Many benefits of feedback have been addressed by both students and staff, however, to understand the overall experience staff were asked if they think there are any challenges to providing feedback. 78% (n=18) responded that yes there are challenges, while 22% (n=5) responded with no there are not challenges.

Staff were asked to discuss what they think are the benefits of giving feedback on assessments to students. One of the main benefits identified is that it helps students to improve their work. Others include that it enhances the learning process, helps students to

identify knowledge gaps and where they have lost marks, and ensures they are on the right path regarding their learning. In addition to the benefits for students, it was highlighted that it is beneficial for staff also to identify why certain areas may be causing difficulty for students. The following quotes from staff discussing the benefits of giving students feedback.

> Ensure students are on the right path regarding their learning/understanding. Give direction for future learning/assignments/course work. ASQ22 – 23:AM

> It allows students to address any issues early and not repeat them going forward. Gives students confidence in what they are doing well. Allows opportunity to encourage new skills and correct any bad habits before they become an issue. Allows interaction with students to understand their perspective. ASQ19 – 20:AM

While all staff who responded to the questionnaire answered yes that they think giving feedback regularly enhances the learning experience, during one interview a staff member expressed there was a concern. This concern relates to giving students too much feedback and enabling students to become over-reliant, rather than using different methods that encourage them to analyse their own strengths and weaknesses. The following quote highlights this concern “I think there's a fine line in are you giving them too much, that they're totally reliant on you to tell them exactly where they went wrong versus giving them a rubric response and letting them analyse the shortcomings”. ASI6

For those who responded with yes that there are challenges with providing feedback on assessment in the questionnaire, they were asked to explain what these challenges are. Additionally, in the staff interviews, this question was also asked. From both of these, three main challenges were identified: time, student engagement with feedback and students’ reactions to feedback. Like the findings in section 4.1.2 about the challenges with assessment, time was identified as the main challenge for several reasons such as busy workloads, large cohorts of students, timing of assessments being close together, and trying to give timely feedback. This challenge is highlighted in the following statement.

> Keeping up with the lecturing schedule can make it difficult to have time available to correct the work and provide feedback in a timely manner. ASQ16 – 17:AO

Furthermore, student's reactions to feedback was reported as a challenge. The following quote is an example of staff discussing trying to incorporate more positive feedback and making feedback more personal to address this issue.

> Giving them positive feedback always to show them where they've done really well in something and then the negative is kind of like that feedback sandwich of, but this is what went well, this is where you could have room for improvement and to take it as constructive feedback so that you know it's not personally attacking them. ASI3

The final challenge discussed is in relation to student engagement with feedback. When discussing this in the staff interviews, it became clear that although many students do take feedback on board there are also those who do not, this is discussed further in section 5.3.

4.2.4 Staff Experience Managing Academic Integrity

To explore the staff's experience with managing academic integrity the initial question asked in the questionnaire was to get staff to describe academic integrity in their own words. Although, many staff have given responses that indicate they have a clear understanding. There are some responses are that are vague and touch on only some of the elements of the term. Like section 4.1.3 the responses to this question have been categorised through thematic analysis (section 3.5) These categorises, a description of the category, and a related quote are shown in Table 8. There were three categories identified from this analysis. However, two respondents left this section blank and are therefore not included in this table.

Table 8.

Categories of Responses Given to the Question on Academic Staff Understanding of the Term Academic Integrity.

Category	Description	Relevant Quote	No.
Upholding high academic standards, correctly referencing, and avoiding plagiarism.	This category consists of responses that discuss high academic standards, referencing correctly and/or not plagiarising.	"Conducting your work with high standards, conducting citations and referencing of other studies and use this in order to build strong basis for your future academic work." ASQ17	n=9
Academic honesty and not claiming others work as your own.	The second category refers to responses that discuss academic honesty and/or not claiming work of others as one's own.	"Effectively it is academic honesty, not misrepresenting work as your own when somebody else authored it, not taking credit for another's work and not cheating in assessments and examinations" ASQ5	n=7
Good teaching, assessment and research practice.	The final category refers to comments around good teach, assessment and research practice.	"Our teaching and assessment are of a suitable robust standard and can be demonstrated so" ASQ7	n=5

During the interviews with staff, they were asked if they had completed any training on academic integrity. The responses were varied, some staff had completed training through

digital badges and LinkedIn learning. Others discussed how teaching modules about academic integrity has helped improve their own understanding. Others had not completed any formal trainings but acknowledged that they intend to.

To follow on from this, staff were asked if they felt that their students had a clear understanding of what is expected from them in terms of academic integrity. In response to this 62% (n=13) voted yes and 38% (n=8) voted no. They were then asked to explain their response to this question. Those who responded with selecting yes primarily responded with that students are taught about it and complete training on the topic. Some state that they think they understand it but that it is not a priority, “I believe there is an awareness however this may not be a priority when completing assignments”. ASQ21 – 22:AY

Alternatively, the explanation from those who responded with no highlighted how some students are not referencing correctly, that some students seem to have an issue with grasping the concept of plagiarism, and there are often issues surrounding plagiarism concerns.

> I think it is a big phrase for students, and I think that it can mean different things. I think it needs to be broken down in year 1 but then it needs to be an underpinning concept across a programme that binds students in their behaviour. ASQ18 – 19:AY

In addition to the university sending out policies and guidelines, other members of staff highlight that students complete an academic integrity badges on the VLE, they are directed to resources available in the libraries, and they are taught about referencing. Furthermore, other members of staff have stated that they teach students about the topic in class.

> Providing valid reliable sourced information and websites, reminding them in class where to source information, and informing them about plagiarism and the penalties that can be imposed. Providing feedback regarding potential issues if/when they arise and speaking to students who may have breached the integrity rules. ASQ16 – 17:BA

As discussed above, some staff have indicated that they teach students about academic integrity. To explore this further, the staff who were interviewed where asked what

methods they use to teach students about academic integrity. 67% (n=4) of the interviewees shared that they use various methods of educating students about academic integrity. These include giving lectures on the topic, having students complete the academic success badge, and informing students about the resources available in the library. The remaining two interviewees discussed how they do not give lectures on it but that they are aware that the students receive information about it through the university.

The next area of interest in relation to this topic was to get an understanding of what challenges staff face regarding academic integrity and what methods they use to manage it. The first challenge that was identified was being able to identify whether it's the students own work or not. These examples include elements of copying and pasting from online resources, collusion especially with online assessments and copying work from other students. Additionally, some staff refer to ChatGPT, chatbots, and AI as posing challenges.

The final section in relation to academic integrity focuses on what methods staff are using to manage academic integrity in terms of assessment. The main method identified by staff is using a text similarity software such as Urkund or Turnitin. Although this method is mentioned by many staff members, some also highlight its shortfalls "I always use Urkund when appropriate, but it may not pick up plagiarism from in-house documents a student accesses in their workplace". ASQ9 – 10:BA

In addition to this, other members of staff discuss adapting their assessments. There are three different adaptations that were highlighted including setting original assessments, having multiple assessments so that students have different ones and limits the ability to work together, and adapting the assessment each year to ensure they can't get the information from former students.

> Setting original assessments that cannot be completed by AI or other methods. Setting new assessments so that students cannot reuse previously submitted material. ASQ8 – 9:AZ

Another method identified is ensuring that students are fully informed about their responsibilities and the consequences of academic dishonesty.

This section provides a comprehensive overview of the findings from the academic staff experience with assessment, feedback, and academic integrity. The findings demonstrate that staff are using diverse range of assessment methods, staff also expressed satisfaction with many assessment types, particularly those that align with real-world applications and prepare students for their future careers. However, challenges reported in relation to feedback, such as time constraints, student engagement with feedback, and large class sizes. Staff also discussed their approaches to teaching academic integrity, highlighting the importance of ongoing continuous professional development in this area and the increasing difficulty of managing academic integrity. The following section presents the key findings from the analysis of the data.

4.3 Key Findings

From carrying out the analysis of the data, which is outlined in chapter 3 (section 3.5) five key themes have been identified in relation to assessment, feedback, and academic integrity. These themes, which emerged from participants' responses, capture key perspectives on these topics, with each theme identified being based on recurring patterns and significant statements from within the data. The main themes and related data have been presented in this chapter with further discussion and conclusions to be outlined in chapter 5. Section 3.5 outlines the process involved in carrying out the Reflexive Thematic Analysis (RTA) of the qualitative data. Braun and Clarke (2022) discuss the phases involved in this process, as presented in Table 3. The RTA approach was selected for its ability to capture nuanced meanings within qualitative data, allowing for a deeper exploration of the complexities surrounding students and staffs' experiences with assessment, feedback and academic integrity. The fifth step in the RTA process is 'refining, defining and naming themes', therefore Table 9 presents the definitions for the five themes that emerged from the data analysis of the findings presented in this chapter. The definitions from Table 9 provide clarity for each theme

and outline the scope. Chapter 5 discusses the five themes in detail, integrating the findings with the relevant academic literature provide a comprehensive discussion.

Table 9.

Definition of Themes from Thematic Analysis.

Theme Title	Definition
Timing Issues	This theme covers challenges relating to the scheduling of assessments and the timing of feedback. It highlights how these factors impact the student's learning experiences. It addresses the challenges faced by academic staff with larger class sizes.
Industry Based Assessments	This theme explores preference for assessments that mirror real-world tasks and that are more practical in nature. It also focuses on assessing students' skills and aligning assessments with real-world industry standards.
Utilising Feedback	This theme focuses on the factors influencing student's utilisation of feedback. It incorporated the desire from students to receive more personalised one-to-one feedback, staff concerns surrounding students not taking feedback on board, and the impact of feedback on the teaching and learning process.
Enablers of Success	This theme highlights key factors contributing to success for students and staff, such as support from peers/colleagues, assessments that support future career paths, and continuous professional development for staff.
Understanding of Academic Integrity	This theme addresses the understanding and awareness surrounding academic integrity. It is consisting of needing more awareness for students around supports for academic integrity, the lack of a shared understanding of the term, and the need for further training and support.

*Source: Authors own definitions.

The first theme relates to the areas of concern from both students and staff in terms of timing issues assessment and feedback on the programmes. These issues have been addressed in sections 4.1.1, 4.1.2, 4.2.2 and 4.2.3. Many students have highlighted that scheduling of assessments is an area that needs focus from programme teams. This is due

to many assessments being carried out around the same time. Additionally, receiving timely feedback has been noted by students as another area for improvement. From the academic staff's perspective, they have identified that time constraints due to busy work schedules is a challenge for them and recognise they need more time in their schedule to enable timely feedback on student work, this theme is discussed further in section 5.1.

Another theme that was identified is the importance of ‘real world’ style assessments or the terminology participants outlined, industry-based assessment. When students discussed the various authentic assessments, they encounter in section 4.1.1 they identified different skills that help to prepare them for their future careers. From the staff experiences an importance for relating assessments to industry and using their own experiences to help with this was discussed in section 4.2.3. This area will be further discussed in section 5.2.

In terms of feedback, a theme that arouse in relation to the utilisation of feedback. Within this theme there is desire for students to receive more personalised feedback, challenges faced by staff with students not utilising the feedback they are given, the impact of feedback on the learning experience. These areas are addressed in sections 4.1.2 and 4.2.3 and will be explored in further detail in section 5.3.

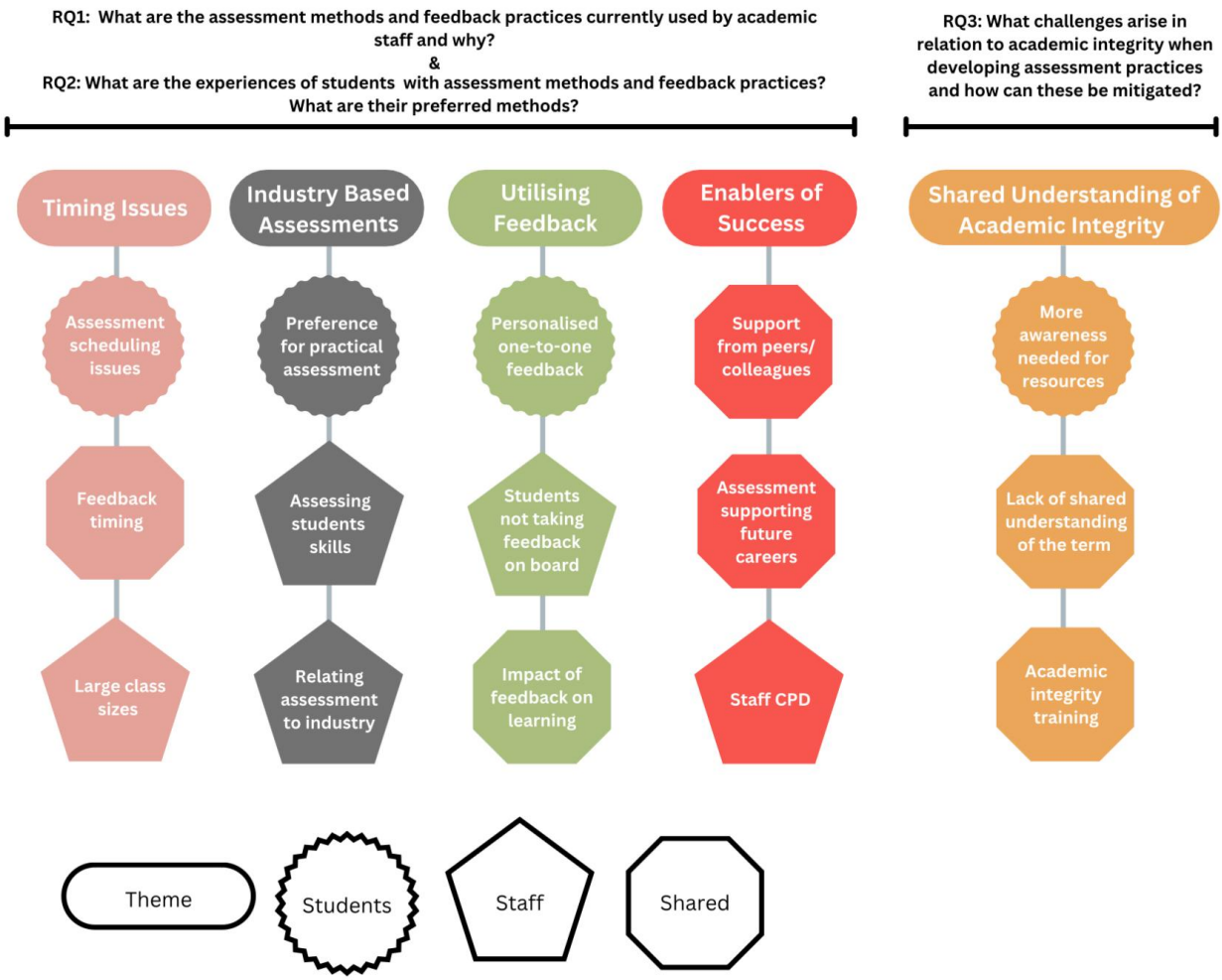
The fourth theme relates to enablers of success for both students and staff. This theme relates to communication between staff and students, students collaborating with each other and colleagues sharing knowledge and supporting each other and the importance of staff continuous development. This area will be further discussed in section 5.4.

The final area that the data that there is a lack of shared understanding between students and staff regarding the term academic integrity. Although both cohorts identify various resources and supports available, there are still those who do not understand the term and their role and responsibility with regards to upholding good academic integrity as can be seen in sections 4.1.3 and 4.2.4. This theme will be further explored in section 5.5.

Figure 15 illustrates a summary of the key themes identified, sub-themes, and their correlation to the research questions (section 1.1.1) for this study.

Figure 15.

Summary of Key Findings from the Reflexive Thematic Analysis of the Data.



4.4 Chapter Summary

Chapter 4 presented the data that emerged from this study, organised into themes reflecting the experiences of both students and academic staff. This approach provided a comprehensive understanding of both perspectives on assessment, feedback, and academic integrity within the programmes. Section 4.3 highlighted the key findings from the qualitative data analysis, introducing the themes generated through thematic analysis as detailed in section 3.5. The following chapter will delve deeper into these key findings, discussing them in relation to the existing academic literature on the topics of assessment, feedback, and academic integrity. This discussion will further contextualise the study's results, offering a broader understanding of the implications and connections to the wider body of research.

Chapter 5: Discussion

Introduction

This chapter discusses the main findings from this study, the themes identified through carrying out the RTA, and the literature analysed in chapter 2. These topics are related to research questions 1, 2 and 3 as outlined in section 1.1.1. Figure 15 which was presented in section 4.3 provides a summary of the key finding that emerged in this study. Additionally, Figure 15 is used as a basis for the structure of this chapter. Each of the findings is discussed in light of the academic literature. This discussion is presented in the following sections: 5.1 Timing Issues, 5.2 Industry-based Assessment (authentic assessment), 5.3 Utilising Feedback, 5.4 Enablers of Success, and 5.5 Shared Understanding of Academic Integrity. Section 5.6 provides a summary of this chapter.

Figure 15.

Summary of Key Findings from the Reflexive Thematic Analysis of the Data.

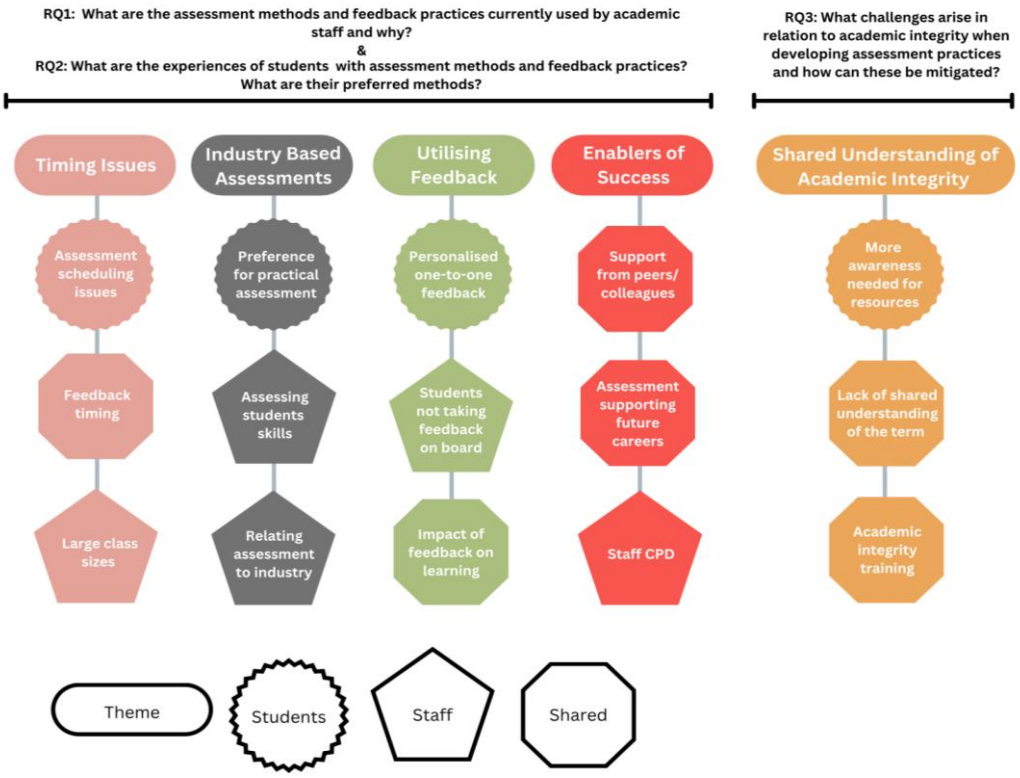


Table 9 in section 4.3 provides the definitions created for each theme from carrying out the RTA. Sections 5.1 to 5.5 discuss the five themes in detail, integrating the findings with the relevant academic literature provide a comprehensive discussion.

5.1 Theme 1 - Timing Issues

The timing of assessment and feedback emerged as a key theme in the findings from this study. Figure 15 illustrates that within the theme of timing issues, there were three sub-themes identified: 1) The student experiences relating to assessment scheduling conflicts 2) Timing of feedback from both the student and staff experiences 3) Timing issues faced by staff when managing assessment and feedback for large class sizes.

Assessment scheduling was highlighted by students as an area for improvement from this study. Many students reported that assessments from across multiple modules were often due for submission around the same time (section 4.1.1). This issue is supported by the literature, which indicates that poor assessment scheduling can hinder the learning process. Carless (2006) suggests that spreading assessments evenly throughout the semester can mitigate these issues by providing students with ongoing opportunities for improvement. Additionally, Boud & Molloy (2013) discusses the importance of spreading out assessments over the course of the semester to avoid assessment ‘clustering’. Panadero and Lipnevich (2022) expand on this by suggesting the need for strategically timed formative assessments throughout the semester to help prevent issues associated with poor assessment scheduling. When highlighting assessment timing as being a challenge, students suggested to allow more time for assessments that are time consuming, better communication between staff and having a more structured approach to scheduling. Tomas and Jessop (2018) discuss how strategically scheduling assessments is necessary to avoid overwhelming students. O’Neill (2019) argues that academic staff need to find ways to improve their awareness of students’ conflicting assessment demands, such as the timing of deadlines. The findings in section 4.1.1 highlight that scheduling of assessments over the course of the semester and academic year is an area for improvement.

Boud and Molloy (2013) discusses that for feedback to be effective, it must be delivered at a time when it can still influence the learning process. The emphasis on timely feedback is a recurring theme across multiple studies, it is highlighted that it is important for feedback to be timely for improvements to be made (Carless, 2006; Lipnevich & Smith, 2009; Boud & Molloy, 2013; Evans, 2013; Winstone et al., 2017b; Carless & Winstone, 2020; Panadero & Lipnevich, 2022). An issue highlighted often in this study by both students and academic staff in this study is the lack of timely feedback. Boud and Molloy (2013) stress the importance of integrating timely feedback into the curriculum, arguing that it supports continuous learning. Lipnevich and Smith (2009) discuss that detailed, immediate feedback improves student performance and prevents surface learning while Panadero and Lipnevich (2022) discuss the need for feedback to be well-timed, noting that immediate feedback is particularly effective for simple tasks and delayed feedback can be beneficial for more complex tasks.

Hattie and Timperley (2007) argue that feedback should be provided promptly to maximise its impact. Immediate feedback helps reinforce learning and allows students to address issues in time to improve their work. The findings of this study highlight that delays in feedback were a common issue, with students feeling that they often received feedback too late to be useful for improving subsequent assessments (section 4.1.2). Furthermore, the challenge with giving timely feedback has also been addressed in the findings from the staff experience. One barrier that was identified for impacting the ability to give timely feedback is the large class sizes. With more students to assess, academic staff often struggle to provide individualised and prompt feedback, leading to delays and reduced effectiveness. Gibbs and Simpson (2004) highlight that large class sizes can compromise the quality and timeliness of feedback, making it difficult for staff to engage in meaningful feedback processes with each student. Section 4.2.3 demonstrates the challenges faced by staff when giving timely feedback on assessments relates to busy work schedules and large class sizes.

Carless (2006) suggests that using technology can help mitigate these issues by streamlining the feedback process and allowing for more timely responses, helping to bridge the gap for larger class sizes. Güney (2023) argues that although giving feedback can be time-consuming for staff, it is considered as necessary for supporting the learning process. Furthermore, the integration of new technologies in teaching, such as AI and learning analytics, can significantly improve the timeliness of feedback. By using mobile devices and advanced tools to quickly process and analyse student performance, academic staff can provide prompt and personalised feedback (Sembey et al., 2023; Ortiz-Lopez et al., 2023).

Another finding in this study is that students would like to receive more one-to-one feedback from staff and for more opportunities to ask questions about their feedback (section 4.1.2). Nicol and Macfarlane-Dick (2006) propose that feedback should be part of an ongoing dialogue between students and academic staff, rather than a one-time event. The literature also suggests that the timing of feedback is critical in assessments, with the goal being to guide and improve learning rather than merely evaluate it (Shute, 2008). Boud and Molloy (2013) highlights that a programmatic approaches to giving feedback as essential to ensuring that feedback is consistent and ongoing, and that it is also integrated into the learning process. These studies place emphasis on the need for feedback to be on-going and integrated into the learning process, allowing students opportunities to ask questions about their feedback..

The issues associated with assessment scheduling, feedback timing, and large class sizes are interconnected and have an impact on the teaching and learning experience of students and staff. From the findings and supported by the academic literature strategically timed assessments, supported by timely and personalised feedback, are important for promoting a productive learning environment.

5.2 Theme 2 - Industry Based Assessment (Authentic Assessment)

The second theme that emerged from the study is related to assessments based on real-life or industry-related tasks. These assessments involve students learning and completing tasks that mirror real-world tasks, scenarios and situations. The academic literature outlined in 2.1.4 outlines this form of assessment is referred to as authentic assessment, although the terminology used by staff is ‘industry’, I will be referring to it as authentic assessment. The findings from this study demonstrate that when asked about authentic assessment, both students and staff linked it with basing assessments on industry and preparation for future careers (sections 4.1.1 & 4.2.2). The second column of Figure 15 shows the sub-themes that were identified under this theme: 1) Students in this study outlined a preference for practical-based over theory-based assessments 2) The importance of assessing students’ skills from the student and staff experience 3) Relating their assessments to industry from the staff experience. The following sections will discuss each of the sub-themes in greater detail.

The findings indicate a strong preference from students for practical assessments over traditional exams and theoretical assessments. Practical assessments, such as presentations, and workshops, that focus less on academic writing, were identified as being more engaging and relevant to their future careers (section 4.1.1). This preference is supported by the literature, which suggests that practical assessments can enhance learning by allowing students to apply theoretical knowledge in real-world contexts. According to Wiggins (1990), authentic assessments involve realistic tasks, require judgment and innovation, and involve real-world application, aligning closely with students' preferences for practical, hands-on learning. This type of assessment is a way to relate learning and the working world, creating a link between what is assessed in the university and what graduates do in the working world (Neely & Tucker, 2012; Villarroel et al., 2019).

Ashford-Rowe et al. (2013) proposed eight principles for designing authentic assessments, emphasising tasks that challenge students, require performance or product outcomes, and demonstrate transfer of learning. Villarroel et al. (2018) highlight that authentic assessments improve learning quality and skill development. In addition, Sambell et al. (2019) discuss that students benefit more from assessments they see as valuable and beneficial for their future careers. Building on these insights, Bearman et al. (2022) discuss the importance of incorporating digital competencies into authentic assessment design, to ensure that students are prepared for the digital demands in their future careers. Section 2.3.2 presented the literature surrounding the generative AI and tool such as ChatGPT and their usage in HE. Rasul et al. (2023) discuss how ChatGPT can be used as a tool to enhance authentic assessment by providing feedback, supporting the construction of knowledge through scaffolded learning experiences, and developing students' digital competencies. This research study found that implementing authentic assessments, such as real-world problem-solving case studies, laboratory experiments, and presentations are reported to be beneficial by students for preparing them for their future careers (section 4.2.2).

Practical assessments also help students develop critical thinking and problem-solving skills, which are essential for their professional growth. Boud and Falchikov (2006) argue that assessments should not only focus on academic performance but also promote the development of skills that are relevant to students' future careers. The findings from this study have shown that the students prefer active learning activities rather than a reliance on rote learning, as presented in section 4.1.1.

According to Lombardi (2008), authentic assessments provide meaningful tasks that help students develop critical skills necessary for their future professional lives. Furthermore, this was a key area of discussion in the findings from the staff experience. The findings highlight that students and staff both see value in assessments that measure a range of skills, including analytical thinking, creativity, and practical application (section 4.1.1 and 4.2.2). This

is supported by Sambell et al. (2019), who promote assessments that are designed to evaluate diverse competencies and skills, ensuring a holistic understanding of student capabilities.

Designing assessments based on real life industry practices/ tasks and requirements was another significant theme identified in the findings. Staff emphasised the importance of aligning assessments with real-world industry standards to better prepare students for their professional careers (section 4.2.2) The literature supports the integration of industry-related assessments to bridge the gap between academic learning and professional practice (Sambell et al., 2019).

Furthermore, collaboration with industry partners can enhance the relevance and applicability of assessments. Herrington and Herrington (2006) discuss the benefits of involving industry professionals in the design and evaluation of assessments, ensuring that the tasks are aligned with current industry standards and practices. Sambell et al. (2019) argue that students learn more from assessments when they perceive the value of the work they are being asked to complete and see its benefits for their future. This is supported by Villarroel et al. (2018), who found that authentic assessment enhances the quality and depth of learning and development of student skills.

Section 5.2 highlights the significance of industry-based or authentic assessments, where students engage in tasks mirroring real-world scenarios, which they find more relevant and engaging than traditional exams. Both students and staff recognise the value of these assessments in preparing students for professional careers by developing practical skills, critical thinking, and problem-solving abilities. The literature supports the integration of authentic assessments to bridge the gap between academic learning and professional practice, emphasising the benefits of collaboration with industry partners in designing these assessments.

5.3 Theme 3 - Utilising Feedback

The next theme that emerged from this study is in relation to the utilisation of feedback. The third column of Figure 15 shows the sub-themes that have been identified under this theme. The three sub-themes are 1) The desire from students for more personalised and one-to-one feedback, 2) Staffs experience with students not taking on board the feedback they are given and 3) The positive and negative impact of feedback on learning identified from the findings.

Feedback should be seen as an ongoing dialogue between students and staff, allowing for continuous improvement. The findings in this study demonstrate that students would prefer to have this one-to-one feedback as it would provide them the opportunity to ask questions if they are unsure of what is meant (section 4.1.2). Personalised one-to-one feedback facilitates this dialogue, making it more likely that students will engage with and act on the feedback provided (Boud & Molloy, 2013). Previously, Carless (2006) argues that personalising feedback helps build trust and rapport between students and staff, which can lead to more meaningful learning experiences. Henderson et al. (2019) discusses that students desire feedback that's more personalised rather than generalised. However. Bailey and Garner (2010) argue that providing detailed and personalised feedback requires significant time and effort from academic staff. (Bailey & Garner, 2010).

However as discussed in section 5.1 there can be barriers to providing this type of feedback. These barriers include issues around time and having larger class sizes, as discussed in section 5.1. Through this study it has been identified that across all three programmes there are many different feedback practices used by staff (section 4.1.2 & 4.2.3). Tai et al. (2017) discussed how it is important for students to have the opportunity to engage in various feedback cycles from a range of sources. Section 2.2.3 presents the academic literature surrounding various methods of giving feedback on assessments.

Another of the challenges identified in the findings is that students often do not take feedback on board (section 4.2.3). The findings in section 4.2.3 also demonstrate staff's frustration with students not taking feedback on board. Hattie and Timperley (2007) discuss that for feedback to be effective, it must be clearly understood and perceived as relevant by the students. Jonsson (2012) identifies five challenges associated with why students may not be taking feedback on board, these are: it may not be useful, it may not be specific or individualised, it may be too authoritative, students may lack strategies to productively use feedback, and lastly feedback may be using terminology students are not familiar with. It is increasingly acknowledged that students' active engagement with feedback is crucial to their academic success (Handley et al., 2011; Winstone et al., 2017a; Carless, 2022; Rose et al., 2024). However, despite its importance, student engagement with feedback can often be low (Carless, 2006; Ali et al., 2018; Yu et al., 2021; Rose et al., 2024), which is evident also in this research study.

Gibbs and Simpson (2004) suggest that feedback needs to be specific, detailed, and related to the assessment criteria to be useful. When feedback is too generic or overly critical without constructive elements, students may feel discouraged and less likely to apply it to future work, as highlighted in the findings from this study in section 4.1.2. This is supported in academic literature with authors discussing that students recognise the importance of feedback, often critise the quality of the feedback, yet do not implement it in their work, this is referred to as the feedback paradox (Withey, 2013; Winstone et al., 2017b).

Carless (2006) discusses how differing perceptions and standards can lead to variability in feedback quality, which can confuse students and hinder their learning. To address this, it is essential to develop a more standardised approach to feedback within educational institutions, ensuring consistency and clarity. One concern highlighted in section 4.2.3 is the balance between providing students with enough guidance to understand their mistakes without making them overly dependent on detailed feedback, versus using a rubric response that encourages students to independently analyse their shortcomings. An area in

academic literature that supports this concern is the importance of developing feedback literacy. Carless and Boud (2018) propose that developing students' feedback literacy is crucial for ensuring they take feedback on board. This involves educating students on how to seek, interpret, and apply feedback in their learning process, fostering a proactive approach to utilising feedback. Similarly, Carless and Winstone (2020) introduces an academic staff feedback literacy framework that encompasses design, relational, and pragmatic dimensions. Implementing such frameworks can help address the feedback challenges identified in this study by promoting a more structured and supportive feedback environment.

Shute (2008) identifies that formative feedback, provided during the learning process, can help students make immediate adjustments and improve their performance over time. However, the findings in section 4.1.2 show that often students do not have the opportunity to improve their work from feedback due to it being too late when it is received. Hattie and Timperley (2007) argue that feedback is one of the most powerful influences on student achievement, provided it is timely, specific, and relates directly to the task at hand. The impact of feedback on learning is also highlighted by Evans (2013), who notes that feedback should be clear, concise, and actionable to be effective. This aligns with the findings, which show that students benefit most from feedback that is specific and provides clear guidance on how to improve on future work (section 4.1.2). Furthermore, Hattie and Clarke (2018) describe feedback as being powerful but that it has varied impacts on learning, and it is about bridging the gap between current and desired learning. The findings of this study indicate that effective feedback can significantly enhance students' learning experiences, helping them to understand their progress and identify areas for improvement on future work (section 4.1.2).

Nicol and Macfarlane-Dick (2006) outline principles for good feedback practice, emphasising the need for feedback to be clear, actionable, and focused on helping students self-regulate their learning. However, the findings from this study indicate that some students struggle to understand and use the feedback they receive, which aligns with existing research highlighting the complexities of effective feedback delivery. Another significant challenge

identified is the demotivating nature of some feedback. When feedback is overly critical or lacks constructive elements, it can discourage students and negatively impact their motivation and self-esteem (section 4.1.2). According to Shute (2008) effective feedback should be supportive and aimed at fostering a growth mindset, helping students see their potential for improvement rather than just pointing out their deficiencies. Additionally, Hattie and Clarke (2018) argue that both negative and positive feedback can be beneficial to learning. Furthermore, Payne et al. (2022) discuss the importance of academic staff adopting the role of a caring partner in the educational process. Their findings suggest that forming strong student-staff alliances involves moving beyond mere correction and judgment. Instead, academic staff should prioritise socio-affective, design, and communication literacies that convey to students that they matter. In this study both student and staff discussed the need for the incorporation of positive feedback alongside constructive feedback to ensure it does not function as a demotivator to students (section 4.1.2 & section 4.2.3).

This section demonstrates the importance of personalised and timely feedback in improving student learning and engagement. While personalised one-to-one feedback is preferred by students, it poses challenges for staff especially in relation to time constraints. The literature emphasises the importance of developing feedback literacy to ensure feedback is utilised. Finally, balancing positive and constructive feedback is prominent in the findings in academic literature and in this study.

5.4 Theme 4 - Enablers of Success

The fourth theme that emerged from this study is in relation to enables of success for both students and staff. The fourth column of Figure 15 outlines the sub-themes are identified within this theme: 1) Importance of having support from peers and colleagues, 2) Assessment being a support for future careers, and 3) The importance of continuous professional development for staff.

Support from peers and colleagues plays a crucial role in creating an environment beneficial to academic success. The findings from both the student and staff experience discuss the positive impact that collaborating with peers and colleagues has on learning process (section 4.1.1, 4.2.2 & 4.2.4). From the student's perspective it is identified that groupwork is beneficial to their learning, as well as contributing to discussion forums and having the opportunity to hear others' opinions. From the staff's perspective several members of staff discussed how they turned to colleagues for support with assessments and if they had queries regarding academic integrity. Support from peers and colleagues enhances academic and professional success, providing emotional and academic assistance and fostering community is widely discussed in academic literature. Peer support networks significantly contribute to student retention and success (Tinto, 2015), with mentoring programs, study groups, and group projects improving mental well-being and academic outcomes (Collings et al, 2014). For staff, support from colleagues is important for many reasons. Andrews et al. (2016) discusses these reasons in detail and highlights that staff do not only provide each other support with teaching but with emotional support and opportunities for professional growth. Furthermore, Dawson (2020) emphasises the role of peer mentoring programmes have in promoting academic integrity. These programmes provide students with practical examples of ethical behaviour and offer guidance on how to avoid academic misconduct.

Providing students with opportunities to engage in tasks that mirror professional practice helps them develop the skills and competencies necessary for success in their future careers (section 4.1.1). Assessment methods should not only evaluate performance but also prepare students for future careers. Authentic assessments that simulate real-world tasks enhance employability and practical skills as discussed in section 5.2. Boud and Falchikov (2006) argue that aligning assessments with professional standards ensures students acquire relevant skills. The study shows that authentic assessments, such as case studies and project-based learning, boost students' confidence in their professional abilities. Students shared that groupwork assessments and presentations are beneficial in helping to develop skills that will

be applicable to their future careers (section 4.1.1). Sambell et al. (2019) argues that integrating employability skills into assessments can enhance students' motivation. By designing assessments that reflect industry expectations and require the application of ethical practices, academic staff can help students appreciate the long-term benefits of maintaining integrity. Previously, Villarroel et al. (2018) highlighted that assessments that aligned with industry standards enhance the overall employability of graduates.

This study found that continuous professional development (CPD) for staff is important for maintaining high teaching standards and staying updated with educational practices. CPD is defined as any activity that aims to strengthen and expand the knowledge, competencies and skills of academic staff that will encourage positive changes in their thinking and educational behaviour (Fenstermacher & Berliner, 1985; Spowart et al., 2017). CPD initiatives lead to improved teaching practices and student engagement, with regular training sessions and peer observations enhancing effectiveness. In the findings from this study, staff who discussed CPD as being an important area, discussed it in relation to academic integrity (section 4.2.4). Sefcik et al. (2019) highlight the importance of CPD in helping staff stay updated with the latest strategies and technologies for promoting academic integrity. In the literature, the importance of effective teaching for student success is widely acknowledged, particularly considering the evolving nature of pedagogy and the recognised need to enhance staff capacity and confidence. Consequently, there has been a growing emphasis on improving teaching capabilities through professional development, which has emerged as a key focus at both the institutional and system-wide levels. (Department of Education and Skills, 2011 & 2019; National Forum, 2019).

CPD can provide academic staff with the tools to design assessments that minimise opportunities for academic misconduct. According to Bretag et al. (2011), training programs that focus on assessment design, feedback practices, and the use of technology can help staff create a more robust framework for academic integrity. Furthermore, Dawson (2020) emphasises the importance of customising training programs to reflect the diverse contexts

and disciplines within an institution. An example of innovative and customised CPD opportunities was the ATU Assessment Hackathon. This event provided academic staff for staff to develop “academically integral, authentic, and sustainable assessment for all in the age of AI” (Atlantic Technological University, 2024b) (p.8). By participating in CPD initiatives such as the Assessment Hackathon, academic staff had the opportunity to work in teams made up of both students and colleagues. Collaborating with students and colleagues during can allow for academic staff to gain insights into student needs and share ideas with colleagues, leading to more relevant and innovative assessment designs.

This section discussed key factors that contribute to success for both students and staff, such as peer support, authentic assessments, and continuous professional development (CPD). Peer and colleague support fosters a supportive and collaborative environment in HE. Authentic assessments that align with professional standards enhance students' readiness for future careers. Meanwhile, CPD is crucial for maintaining high teaching standards, promoting academic integrity, and ensuring academic staff are equipped with the latest strategies and tools to support teaching and learning.

5.5 Theme 5 - Understanding of Academic Integrity

The final theme identified from this study is related to sharing the understanding of academic integrity. This section is highlighted in the final column of Figure 15. This discussion focuses on three key sub-themes: 1) Awareness of academic integrity resources, 2) Lack of shared understanding of the term, and 3) The need for increased academic integrity training.

Awareness of academic integrity resources among students and staff is essential. This study has shown that although there are many different types of resources available in university to inform students and staff about academic integrity, there is a lack of awareness around the availability and location of them (section 4.1.3). The findings show that from the respondents of the student questionnaire, 66% (n=43) respondents are not aware of academic integrity resources available within the university. However, when exploring the findings from the staff experience it is evident that staff and the university are using various methods to

inform students such as getting them to complete a module on the topic, running lectures on the topic, and informing students about the resources available in the library (4.2.4).

Dawson and Sutherland-Smith (2018) found significant gaps in awareness about academic integrity tools and support systems. Increased awareness can promote academic integrity and prevent academic misconduct (Bretag et al., 2013). Strategies for improvement include integrating information about these resources into induction programmes and course syllabus (Brimble & Stevenson-Clarke, 2005). By ensuring that students and staff are aware and educated about the available resources and where they can a, institutions can create a culture of integrity and reduce instances of academic misconduct. These measures can help to embed a culture of integrity within the institution and ensure that students are well-informed about the policies and resources in place to support them (Bretag et al., 2011; Dawson, 2020).

The findings from this study indicate that there is a lack of shared understanding of the term academic integrity. Sections 4.1.3 presents the finding that 66% (n=43) students that responded to the questionnaire reported that they had a clear understanding of what their responsibilities are in relation to academic integrity. However, table 5 shows that there are significant differences in what the respondents describe their understanding of the term academic integrity to be. Table 5 and Table 8 demonstrate the lack of shared understanding by identifying the variety of categories of understanding that have been identified from both the students and staff. As presented in section 2.3, Eaton (2023) argues that the is not one singular or universal definition of academic integrity. Diverse definitions and interpretations can lead to inconsistencies in handling academic misconduct and educating students about integrity (Macfarlane et al., 2014). Bretag (2019) argues that developing a shared understanding requires university-wide policies and regular discussions among staff and students. Section 4.1.3 outlines suggestions from students to improve communication and their understanding of the term academic integrity. Section 4.2.4 presents the findings from the staff questionnaire surrounding staffs' views on whether or not students understand what is expected of them in terms of academic integrity. For those who responded that they do not

believe students have a clear understanding highlighted that some students are not referencing correctly, that some students seem to have an issue with grasping the concept of plagiarism, and there are often issues surrounding plagiarism concerns. This findings are supported in the literature, Sbaffi and Zhao (2022), discuss some of the barriers faced when teaching academic integrity which include the complex terminology used to explain academic integrity, competing views across cultures on what is expected from students, and language barriers.

This study also found that there are varying levels of academic integrity trainings with both students and staff. Academic integrity training is important for both cohorts to ensures that everyone understands and upholds the principles of academic integrity. Bretag et al. (2018) discusses the necessity of regular training programs to address issues with academic dishonesty. Current training practices vary widely in effectiveness (Sutherland-Smith, 2008). Enhancing these training programmes involves incorporating interactive workshops, case studies, and continuous learning opportunities (Macdonald & Carroll, 2006). Regular and comprehensive training are essential for educating both students and staff about the principles and practices of academic integrity (Sefcik et al., 2019).

This section highlights the need for increased awareness of academic integrity resources, a common understanding of what academic integrity entails, and comprehensive training programs are essential for fostering a culture of honesty and trust in HE. By addressing these key areas, HE institutions can improve the integrity of their academic processes and enhance the overall educational experience.

5.6 Chapter Summary

The findings from this study (chapter 4) provide insight into the student and staff experiences with assessment, feedback, and academic integrity. This chapter discusses the findings from the thematic analysis of the data in light of the academic literature in these areas. Chapter 6 gives conclusions for this thesis, focusing on the objectives of the study. The scope and limitations of the study are presented alongside the recommendations which are aligned with objective 4 (section 1.1). Chapter 6 also presents the outputs from the research study and the concluding remarks.

Chapter 6: Conclusion and Recommendations

Introduction

The aim of this research study was to explore the experiences of students and academic staff with assessment, feedback, and academic integrity across three programmes in a Technological University. This thesis begins with Chapter 1 which introduces the research study, discusses the context and background, and outlines the aim, objectives and research questions being explored. Chapter 2 of this thesis demonstrates a comprehensive analysis of the academic literature relating to the topics of assessment, feedback, and academic integrity. This is followed by Chapter 3 which provides information regarding the research methodology, research methods and details the process of conducting the RTA of the qualitative data collected. The findings from this study are presented in Chapter 4 and are discussed in alignment with the academic literature in Chapter 5.

This chapter focuses on concluding the research study, discussing the four main objectives and how each of these have been met. The outputs from this study are also presented. In addition, the scope and limitations are addressed and followed by the recommendations from the research study and the concluding remarks.

6.1 Research Study Objectives

This section revisits the main objectives of this study as outlined in section 1.1. It evaluates how each objective has been addressed through the research and highlights significant findings related to each of the objectives. The objectives of this research study were focused on understanding students and academic staff's experiences with assessment methods, feedback practices, and academic integrity within the three programmes. The study aimed to identify current practices, explore student experiences, investigate academic integrity challenges, and provide recommendations for improvement based on the findings.

The first objective outlined in section 1.1 was to identify the assessment methods and feedback practices used by staff across the programmes involved in the study. Through desk analysis, staff questionnaires and interviews (sections 3.4.2, 3.4.3 & 3.4.4), the study revealed

a diverse range of assessment methods already in use. The findings in sections 4.1.1 and 4.2.1 provided a solid foundation for understanding current practices and informed further exploration of student and staff experiences with assessment and feedback. The literature highlights that assessment is a multifaceted concept that serves not only to measure academic performance but also to enhance learning and inform instructional practices (Bloxham & Boyd, 2007; Brown & Knight, 2012). Boud and Falchikov (2006) argue that assessment should be a strategic component of education, designed to not only evaluate student performance but also to foster long-term learning capabilities. This perspective is reinforced by Winstone and Carless (2020), who highlight the role of assessment in developing students' self-regulation skills, ensuring that they are not merely passive recipients of knowledge but active participants in their learning journey. The diversity of assessment methods identified in this study reflects the need for varied approaches that can support these broader educational goals. O'Neill and Padden (2021) found that by diversifying assessment a key benefit gained was improved student engagement and empowerment.

Objective two was to explore students' experiences with assessment and feedback practices and identifying their preferred methods. Data from student questionnaires and focus groups (sections 3.4.3 & 3.4.5) showed that most students were satisfied with the variety of assessments but preferred practical assessments, assessments that were related to industry, and assessments that help prepare them for their future careers (sections 4.1.1 & 5.2). However, concerns were raised about the timing of assessments and the delay in receiving feedback. Students expressed a desire for more timely, one-on-one, and positive feedback to enhance their learning experience (sections 4.1.1, 4.1.2 & 5.1). The literature discusses the importance of designing assessments that align with real-world applications and future career demands (Sambell et al., 2019), which resonates with students' preferences for practical, industry-related assessments (sections 4.1.1 & 5.2). Assessments should not only be academically rigorous but also relevant to students' future careers (Carless, 2014; Sambell et al. 2019). Additionally, Boud and Molloy (2013) discuss the importance of integrating timely feedback into the curriculum, arguing that it supports continuous learning and engagement.

Investigating the understanding, awareness, and challenges related to academic integrity among students and staff was objective three. The findings demonstrated that many students were unaware of the resources available to support academic integrity and that there was a lack of shared understanding of the term itself (section 4.1.3). Staff generally had a clearer understanding, but both groups expressed the need for more training and awareness-raising activities, such as lectures given on the topic of academic integrity, refresher sessions given yearly, and instructional videos to promote academic integrity (sections 4.1.3 & 4.2.4). The challenges related to academic integrity are well-documented in academic literature. In the digital age, challenges such as plagiarism, contract cheating, and the use of AI tools like Chat GPT have made maintaining academic integrity increasingly complex (Bretag et al., 2011; Dawson, 2020). Sambell et al. (2019) also highlight the importance of designing assessments that discourage dishonest behaviours and emphasise the role of clear communication and continuous education in fostering a culture of integrity. These sources support the study's findings on the need for enhanced training and resources to address academic integrity issues effectively.

Finally, the fourth objective was to provide informed recommendations for improving assessment, feedback, and academic integrity based on the study's findings. Through thematic analysis of the data collected from students and staff, the study generated actionable recommendations aimed at enhancing the quality and effectiveness of these key areas within academic programmes. The literature underscores the necessity of a holistic approach to assessment design, as outlined by Price et al. (2011), who stress the importance of integrating various elements of assessment to avoid negative impacts on the educational process. Sambell et al. (2019) advocate for designing assessments that are meaningful and significant, balancing the need for accreditation with fostering deep learning. The recommendations from this study are aligned with these principles, aiming to enhance the relevance of assessments and ensure timely feedback as suggested by Boud and Molloy (2013) in their discussions on feedback and lifelong learning. In addition, the recommendations seek to improve the

understanding and communication surrounding academic integrity. These recommendations will be discussed in detail in section 6.4.

6.2 Outputs from Research Study

Conducting this research study allowed for a thorough analysis of academic literature on assessment, feedback, and academic integrity, which also facilitated the exploration of existing resources available to support these practices both in Ireland and globally. This exploration, combined with the findings this study and the larger scaled research project 'Re-imagining Assessment and Feedback for Student Success' (section 1.2.2), led to the development of several resources. Section 6.2.1 shows the various presentations given in relation to this research study and the outputs and section 6.2.2 presents the outputs that were developed.

6.2.1 Presenting Research

The preliminary findings and outputs from this research study have been presented at a range of academic conferences in Ireland and the United Kingdom, reaching a national and international audience. Table 10 presents details of the conferences, titles of the presentations and presentation type.

Table 10.

Details of Public Presentations given from this Study.

Date	Conference	Title	Presentation Type
June 2023	Assessment in Higher Education (AHE), Manchester.	Authentic Assessment exemplars from within ATU.	Poster.
June 2023	European Distance and E-Learning Network (EDEN), Dublin.	Students as partners in inspiring transformation in assessment and feedback practices.	Poster.
December 2023	ATU Teaching and Learning Christmas Showcase.	Let's talk about academic integrity and assessment.	Research presentation.
June 2024	Assessment in Higher Education (AHE), Manchester.	An exploration of student and staff knowledge of and experience with academic integrity in the Atlantic Technological University (ATU) in Ireland.	Research presentation.
June 2024	Assessment in Higher Education (AHE), Manchester.	Let's Talk about assessment workshop – An interactive workshop developed in ATU in Ireland.	Research presentation.

Attending and presenting at the academic conferences outlined in Table 10 has significantly contributed to this study by providing opportunities to engage with experts in the field. From these interactions I was able to learn about and discuss the latest research in the area of assessment, feedback, and academic integrity. The conferences also provided the opportunity to present preliminary findings from this study and to get questions and feedback from other attendees. This helped to identify if there were any gaps or areas that were unclear

in the study and findings. The following section will discuss the scope and limitations of this research study.

6.2.2 A-Z of Assessment Types

Section 6.2 briefly outlines the resources that were developed through the combination of this study and the larger scaled research study. The resources developed aim to support staff and students in the areas of assessment, feedback, and academic integrity. The first of these resources is an assessment resource directory, which is hosted on the DigitalEd platform (https://www.digitaled.ie/assessment/) (Appendix J). The directory consists of three areas: Assessment Types, Assessment Resources, and Assessment Masterclasses.

The Assessment Types section consists of an A-Z of assessment types, each assessment type contains information about what it is, advantages and challenges of using it, tips for use, and links to additional resources. The second section provides links to various resources about assessment, feedback, and academic integrity. The final section presents videos and links to slides from the assessment masterclass series that was run in ATU and the symposiums from the Re-imagining Assessment and Feedback for Student Success project. The aim of this resource is to be a one-stop-shop for assessment supports.

In addition to the directory, a deck of A-Z of assessment types cards were created (https://www.digitaled.ie/wp-content/uploads/2024/05/PDF-A-Z-cards-full.pdf). The A-Z assessment types cards were developed in collaboration with the N-TUTORR Transforming Learning team (National Technological University Transformation for Recovery and Resilience). The cards were used as a supporting resource for the ATU Assessment Hackathon in September 2023. Furthermore, these cards inspired the creation of a workshop called “Let’s Talk about Assessment” which was based around the application of the deck of cards to create the opportunity for staff to come together to discuss and share ideas about various assessment types. Due to the success of the staff workshop, it was adapted for student teachers. This workshop was carried out across the different campuses in ATU, and it was also adapted to an online version.

6.3 Scope and Limitations

The main aim of this research study, as outlined in section 1.1, was to explore the experiences of students and staff with assessment, feedback, and academic integrity across three programmes in a Technological University. The scope of this study was solely to explore the experiences of students and staff, and to provide recommendations for areas of improvement. The data collection approach used was mixed methods which incorporated both qualitative and quantitative questioning, as outlined in section 3.4. The scope of the study did not extend beyond the students and staff that were directly involved in the study which are presented in section 1.2.2.

One main limitation of this study is the reliance on self-reported data from the participants. The self-reported experiences in the questionnaires, focus groups and interviews are subject to personal biases. However, for the purpose of this study the aim was to gain insight into the experiences of both cohorts, thereby gathering this type of data was essential. Another limitation was the timing of data collection, as it was confined to a single academic year. Section 3.3 discusses that the research framework chosen for this study was a case study framework. Yin (2017) outlines that one of the drawbacks of a case study framework is the limited generalisability of the findings. Choosing the case study framework and the limited period of time provided a snapshot of experiences but does not allow for an exploration of the experiences of students and staff over a long period of time. Although the findings have limited generalisability, they can be used to inform understanding of similar cases, provide insight for future research, and provide informed recommendations.

Furthermore, all three programmes (section 1.2.2) that were involved in the study volunteered to take part in the research. This could demonstrate that these programmes are representative of those who are actively involved in working towards adapting and improving their assessment and feedback practices. Additionally, the three programmes are Bachelor of Science (BSc) degrees. Participation in each of the data collection processes as outlined in section 3.6 was also voluntary, for the questionnaires 43% (n=65) of the registered students

responded and 70% (n=23) of the academic staff teaching on the programmes responded. For the staff interviews and the focus groups there was a limited number of volunteers. Overall, there was good representation of both students and academic staff that contributed their experiences, however this may not be indicative of the entire student and staff population. Section 1.2.1 presents the structure of the Technological University involved in the study, highlighting that there are over 600 programmes within the University. This study demonstrates the experiences from three of these programmes, therefore it may not be representative of the entire University, however this was understood when choosing to use the case study framework (section 3.3).

It is also important to acknowledge the potential influence of my own interpretation of the data, as this may differ from another researcher in this area. It was important to me to remain objective in my questioning during the data collection and analysis of the data to ensure that I did not introduce any of my own personal biases into the findings. Additionally, if I was to carry out this study again with another group of students and academic staff from a different academic year the findings may vary due to the differing experiences of the cohorts.

6.4 Recommendations

This section presents the recommendations that were developed through the analysis of the research study findings. In addition, this section outlines recommendations for future research opportunities. This section discusses the various recommendations under three sections: assessment, feedback and academic integrity.

6.4.1 Assessment Recommendations

This section presents the recommendations for areas for improvements around assessment methods and practices which aligns with objective four of the study (section 1.1 & 6.1). The inclusion of the fourth objective, providing informed recommendations, was aligned with the pragmatic and constructivist philosophical stance taken for this this study (section 3.2 & 3.2.1). The findings from chapter 4 suggest that an area for improvement on each programme is the scheduling of assessments, with many students expressing dissatisfaction

with the timing of assessments and noting that assessments are other are due around the same time. Furthermore, section 5.1 discusses the academic literature surrounding the importance of spreading out assessments over the semester (Boud & Molloy, 2013; O'Neill, 2019). Therefore, one recommendation from this study is for the programme teams to work together to develop strategic assessment schedules. For the programmes involved in this research study, the initial step in the data collection process was to fill out a desk analysis of the assessments used on each programme (section 3.4.2). This could be incorporated into the planning of the assessment schedules which would give a holistic overview of the different methods of assessment and the timing of completion. This would in turn help to identify if there is any overreliance on use of assessment methods in the same stage of the programme.

In addition, both students and staff expressed their satisfaction and preference for practical-based assessments, assessments that are based on industry, and assessment that help to prepare students for their future careers. From the findings of this study, these are areas that are working well for these programmes. It is recommended that when considering adapting assessment methods in the future that these are areas that are considered in the design stage. The following section focuses on recommendations in relation to giving feedback on assessments.

6.4.2 Feedback Recommendations

The findings from this study highlight the challenges associated with staff giving feedback on assessments and students receiving feedback on assessments. An issue that was identified through this study was in relation to the timing of feedback (section 5.1). This was identified as an issue by students who shared that in their experiences, they believe it is often too late when they receive feedback and that they do not have the opportunity to make changes before their next assessment (section 4.1.2). However, from the staffs experiences they reported that it is often difficult to have time to give feedback on every assessment especially due to larger class sizes and busy workloads (section 4.2.3).

Additionally, students reported that to improve their experience with getting feedback they would appreciate more personalised one-to-one feedback, more opportunities to ask for clarification, more consistent feedback and more incorporation of positive feedback. Whilst staff were concerned about how the feedback they give is not taken on board and used (section 5.3).

To improve the consistency of feedback, a recommendation to the programme teams would be to work together to outline what are the requirements and standards expected for the different assessment types. Developing a comprehensive grading and feedback rubric would help to ensure consistency across the entire programme. Boud and Molloy (2013) advocate for the use of rubrics and examples of good feedback practices to help provide more structured and reliable feedback. Another recommendation would be to allocate a specific time to host a drop-in session for students to meet with the members of academic staff to ask questions about the feedback received. This would help to allow students to ask questions whilst also making the experience more personalised and having the one-to-one experience.

6.4.3 Academic Integrity Recommendations

The final section for recommendations is in relation to academic integrity. One of the key findings from this study is the lack of a shared understanding of what this term means (section 5.5). The main recommendation for this area is to improve education and awareness around academic integrity. The study showed that although staff on these programmes are educating students about academic integrity there still seems to be a lack of awareness and understanding. Since this study began there has been an increase in resources available with the development of the academic integrity hub. This is a central location for resources and course around this topic.

Bretag et al. (2013) argues that increased awareness can promote academic integrity and prevent academic misconduct. The recommendation from these findings is to create a structured approach across the University for education, training and awareness of academic integrity resources. The academic integrity badge that is being completed by students is a

good starting point. However, this study has identified the need for refresher information sessions to be run yearly. Additionally, there is a need for increased visibility of the resources available to students and staff, this could be done through the creation of short instructional videos embedded on the student and staff hub, linking resources to the VLE pages for visibility and arranging regular information sessions for students and staff.

6.4.4 Future Research Recommendations

The aims and objectives for this research study have been met and have provided an insight into the experience of students and staff with assessment, feedback and academic integrity on the three programmes that participated in the study (section 1.2.2). There are several opportunities that could be explored in future research studies to build on the findings from this study. Firstly, as a continuation of this research study, further exploration into the student and staff experience could be carried out. This continuation could be based on the application of changes to assessment, feedback, and academic integrity, and exploring any positive or negative implications of these changes. Another option with this would be to continue this study over a longer time period, this would give a fuller picture of the experiences of students and staff over a longer period of time. This would mean also expanding of the cohorts to include any new students or academic staff members.

Additionally, the scope of the study could be expanded internally within this Technological University to include a range of diverse programmes to identify areas for improvement across a range of disciplines. This would help to get further insight into student and staff experiences with assessment, feedback and academic integrity. This would be a more comprehensive overview of students and staff's experiences within ATU.

Alternatively, it could be beneficial to expand the scope of the study to include other Technological Universities that are running similar programmes. This would give an insight into the similarities and differences in the experience of students and staff in other Universities. This would allow for a comparative study to identify what works well for students and staff in

relation to assessment, feedback and academic integrity across the Technological University sector.

There are many options for future research in this area, this research study presents the findings from this case study. With the ever-changing nature of assessment, feedback and academic integrity in HE it is important to carry out studies that explore the experiences of students and staff to make improvements over time. The final section concludes this research study.

6.5 Concluding Remarks

This research study helps to provide insight into the experiences with assessment, feedback, and academic integrity within three programmes. The aim and objectives of this study, outlined in section 1.1 were chosen to address and explore these three areas of the educational experience. The main aim of this study was to comprehensively explore the experiences of students and staff in terms of assessment, feedback and academic integrity. The findings presented in chapter 4 demonstrate this exploration and that the aim has been met. Through addressing each of the four objectives of this study the findings presented give a snapshot of the experiences of students and staff from specific timeframe. Although the timeframe and scope were limited, the findings from this study are beneficial, not only to those directly involved in the study but to the entire HE sector. For the programmes that took part in this study, it provides an overview of both experiences and will help to address any issues arising. This helps to identify what is working well and what areas need improvement. In the context of the HE sector, this study adds to a growing body of research on assessment, feedback and academic integrity.

This study has significantly deepened my understanding of the complexities involved in assessment, feedback and academic integrity in HE. By exploring the experiences of both students and staff, this study provided the opportunity to gain insight into the education experiences from the lens of the learner and educator, which gives a dual perspective. Focusing on both cohorts was particularly beneficial in carrying out a comprehensive

exploration as it ensured that the recommendations for improvement were grounded in the realities faced by both students and staff making them more practical and implementable. This research study has inspired me to continue to explore these areas in teaching and learning and pursue further research that contributes to meaningful improvements in HE.

References

Acocella, I. (2011). The focus groups in social research: Advantages and disadvantages. *Quality & Quantity, 46*, 1125-1136. https://doi.org/10.1007/s11135-011-9600-4

Adams, S. (2004). *"Using learning outcomes. A consideration of the nature, role, application and implications for European education of employing 'learning outcomes' at the local, national and international levels".* Bologna Seminar, Edinburgh, Scotland.

Advance HE. (2020). *Essential Frameworks for Enhancing Student Success: Transforming Assessment.* https://www.advance-he.ac.uk/knowledge-hub/essential-frameworks-enhancing-student-success-transforming-assessment

Ali, N., Ahmed, L., & Rose, S. (2018). Identifying Predictors of Students' Perception of and Engagement with Assessment Feedback. *Active Learning in Higher Education, 19*(3), 239-251. https://doi.org/10.1177/1469787417735609.

Andrews, T., Conaway, E., Zhao, J., & Dolan, E. (2016). Colleagues as Change Agents: How Department Networks and Opinion Leaders Influence Teaching at a Single Research University. *CBE - Life Sciences Education, 15*, 1-17. https://doi.org/10.1187/cbe.15-08-0170

Archer, E. (2017). The Assessment Purpose Triangle: Balancing the Purposes of Educational Assessment. *Frontiers in Education, 2*. https://doi.org/10.3389/feduc.2017.00041

Ashford-Rowe, L., Herrington, J., & Brown, C. (2013). Establishing the critical elements that determine authentic assessment. *Assessment & Evaluation in Higher Education, 39*(2). https://doi.org/10.1080/02602938.2013.819566

Atlantic Technological University (ATU). (2022). https://www.atu.ie/

Atlantic Technological University (ATU). (2024a). *Academic integrity policy*. https://www.atu.ie/sites/default/files/2024-02/aqae022-academic-integrity-policy-1.pdf

Atlantic Technological University (ATU). (2024b). *ATU Assessment Hackathon Big Ideas*. Available at: https://issuu.com/atlantictechnologicaluniversity/docs/atu_assessment_hackathon_flipbook

Awdry. (2021). Assignment outsourcing: Moving beyond contract cheating. *Assessment & Evaluation in Higher Education, 46*(2), 220-235. https://doi.org/10.1080/02602938.2020.1765311

Baartman, L., & Quinlan, K. (2023). Assessment and feedback in higher education reimagined: using programmatic assessment to transform higher education. *Perspectives: Policy and Practice in Higher education, 28*(2), 57-67. https://doi.org/10.1080/13603108.2023.2283118

Bailey, R., & Garner, M. (2010). Is the feedback in higher education assessment worth the paper it is written on? Teachers' reflections on their practices. *Teaching in Higher Education, 15*(2), 187-198. https://doi.org/10.1080/13562511003620019

Bearman, M., Dawson, P., Bennet, S., Hall, M., Molloy, E., Boud, D., & Joughin, G. (2017). How university teachers design assessments: a cross-disciplinary study. *Higher Education, 74*(1), 49-64. https://doi.org/https://doi.org/10.1007/s10734-016-0027-7

Bearman, M., Nieminen, J., & Ajjawi, R. (2022). Designing assessment in a digital world: An organising framework. *Assessment & Evaluation in Higher Education, 48*(3), 291-304. https://doi.org/10.1080/02602938.2022.2069674

Belter, R., & DuPre, A. (2009). A strategy to reduce plagiarism in an undergraduate course. *Teaching of Psychology, 36*(4), 257-261. https://doi.org/10.1080/00986280903173165

Bennett. (2011). Formative assessment: A critical review. *Assessment in Education: Principles, Policy & Practice, 18*(1), 5-11. https://doi.org/10.1080/0969594X.2010.513678

Biesta, G. (2010). *Pragmatism and the Philosophical Foundations of Mixed Methods Research.* In *Sage Handbook of Mixed Methods in Social & Behavioral Research* (2nd ed.). Sage Publications.

Biggs, J. (1999). *What the Student Does: Teaching for Quality Learning at University*. Open University Press.

Biggs, J., & Tang, C. (2007). *What the Student Does: Teaching for Quality Learning at University.* (3rd ed). McGraw-Hill.

Biggs, J., & Tang, C. (2011). *What the Student Does: Teaching for Quality Learning at University.* (4th ed). McGraw-Hill Education.

Biggs, J., Tang, C., & Kennedy, G. (2022). *Teaching for quality learning at university* (5th ed). McGraw-Hill.

Black, P., & William, D. (1998). Assessment and classroom learning. *Assessment in Education: Principles, Policy & Practice, 5*, 7-74. https://doi.org/10.1080/0969595980050102

Black, P., & William, D. (2009). Developing the theory of formative assessment. *Educational Assessment Evaluation and Accountability, 21*(1), 5-31. https://doi.org/10.1007/s11092-008-9068-5

Blair, A., Curtis, S., Goodwin, M., & Shields, S. (2013). What feedback do students want? *Learning and Teaching in Politics and International Studies, 33*(1), 66-79. https://doi.org/10.1111/j.1467-9256.2012.01446.x

Bloxham, S., & Boyd, P. (2007). *Developing Effective Assessment in Higher Education: A Practical Guide: A Practical Guide*. McGraw-Hill Education.

Boud, D. (1995). *Assessment and Learning: Contradictory of complementary*. In K. P (Ed.), *Assessment for Learning in Higher Education* (pp. 35-48). Kogan Page.

Boud, D. (2021). *Assessment-as-Learning for the Development of Students' Evaluative Judgement*. In Z. Yan & L. Yang (Eds.), *Assessment as Learning: Maximising Opportunities for Student Learning and Achievement.* (1st ed.). Routledge.

Boud, D., & E, M. (2013). Rethinking models of feedback for learning: the challenge of design. *Assessment & Evaluation in Higher Education, 38*(6), 698-712. https://doi.org/10.1080/02602938.2012.691462

Boud, D., & Falchikoc, N. (2007). *Rethinking assessment in Higher Education: Learning for the Longer term.* Routledge.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101. https://doi.org/10.1191/1478088706qp063oa

Braun, V., & Clarke, V. (2022). *Thematic analysis - A Practical Guide*. Sage Publication.

Bretag, T., Harper, R., Burton, M., Ellis, C., Newton, P., Rozenberg, P., Saddiqui, S., & Haeringen, v. (2018). Contract cheating: A survey of Australian university students. *Studies in Higher Education, 44*(11), 1837-1856. https://doi.org/10.1080/03075079.2018.1462788

Bretag, T., & Mahmud, S. (2016). *A Conceptual Framework for Implementing Exemplary Academic Integrity Policy in Australian Higher Education*. In T. Bretag (Ed.), *Handbook of Academic Integrity*. Springer. https://doi.org/10.1007/978-981-287-098-8_24

Bretag, T., Mahmud, S., Wallace, M., Walker, R., McGowan, U., East, J., Green, M., Partridge, L., & James, C. (2013). 'Teach us how to do it properly!' An Australian academic integrity student survey. *Studies in Higher Education, 39*(7), 1150-1169. https://doi.org/10.1080/03075079.2013.777406

Brimble, M., & Stevenson-Clarke, P. (2005). Perceptions of the prevalence and seriousness of academic dishonesty in Australian universities. *The Australian Educational Researcher, 32*, 19-44.

Brown, G. (2019). Is assessment for learning really assessment?. *Frontiers Education, 64*(4). https://doi.org/10.3389/feduc.2019.00064

Brown, S., & Knight, P. (2012). *Assessing Learners in Higher Education* (Revised ed.). Routledge Falmer.

Bryman, A. (2012). *Social Research Methods* (4th ed.). Oxford University Press.

Byrne, D. (2021). A worked example of Braun and Clarke's approach to reflexive thematic analysis. *Quality & Quantity, 56*, 1391-1412. https://doi.org/10.1007/s11135-021-01182-y

Carless, D. (2006). Differing perceptions in the feedback process. *Studies in Higher Education, 31*(2), 219-233. https://doi.org/10.1080/03075070600572132

Carless, D. (2015). Exploring learning-oriented assessment processes. *Higher Education, 69*(6), 963-976. https://doi.org/10.1007/s10734-014-9816-z

Carless, D., & Boud, D. (2018). The development of student feedback literacy: Enabling uptake of feedback. *Assessment & Evaluation in Higher Education, 43*(8), 1315-1325. https://doi.org/10.1080/02602938.2018.1463354

Carless, D., & Winstone, N. (2020). Teacher feedback literacy and its interplay with student feedback literacy. *Teaching in Higher Education, 28*(1), 150-163. https://doi.org/10.1080/13562517.2020.1782372

CAST. (2011). *Universal Design for Learning Guidelines version 2.0*. Wakefield, MA.

Chowdhury, H., & Bhattacharyya, D. (2018). *Plagiarism: Taxonomy, tools and detection techniques.* Knowledge, Library and Information Networking, NACLIN.

Cohen, L., Manion, L., & Morrison, K. (2018). *Research Methods in Education* (8th ed.). Routledge.

Collings, R., Swanson, V., & Watkins, R. (2014). The impact of peer mentoring on levels of student wellbeing, integration and retention: A controlled comparative evaluation of residential students in UK higher education. *Higher Education, 68*, 927-942. https://doi.org/10.1007/s10734-014-9752-y

Colnerud, G., & Rosander, M. (2009). Academic dishonesty, ethical norms and learning. *Assessment & Evaluation in Higher Education, 34*(5), 505-517. https://doi.org/10.1080/02602930802155263

Cram, F., & Mertens, D. (2016). Negotiating solidarity between indigenous and transformative paradigms in evaluation. *Evaluation Matters—He Take Tō Te Aromatawai, 2*. https://doi.org/10.18296/em.0015

Creswell, J., & Plano Clarke, V. *Designing and Conducting Mixed Methods Research.* (3rd ed.). Sage Publications.

Creswell, J. W. (2011). *Controversies in Mixed Methods Research.* In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE Handbook of Qualitative Research* (4th ed.). SAGE.

Creswell, J. W., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative & Mixed Methods Approaches* (5th ed.). SAGE.

Creswell, J. W., & Poth, C. N. (2016). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*. SAGE Publications.

Dann, R. (2014). Assessment as learning: blurring the boundaries of assessment and learning for theory, policy and practice. *Assessment in Higher Education: Principles, Policy & Practice, 21*(2), 149-166. https://doi.org/10.1080/0969594X.2014.898128

Davis, A. (2023). Academic integrity in the time of contradictions. *Cogent Education, 10*(2). https://doi.org/10.1080/2331186X.2023.2289307

Davis, M. (2022). Examining and improving inclusive practice in institutional academic integrity policies, procedures, teaching and support. *International Journal for Educational Integrity, 18*. https://doi.org/10.1007/s40979-022-00108-x

Dawson, P., Bearman, M., Boud, D. J., Hall, M., Molloy, E. K., Bennett, S., & Joughin, G. (2013). Assessment might dictate the curriculum, but what dictates assessment? *Teaching & learning inquiry, 1*(1), 107-111.

Dawson, P., Henderson, M., Mahoney, P., Phillips, M., Ryan, T., Boud, D., & Molloy, E. (2018). What makes for effective feedback: Staff and student perspectives. *Assessment & Evaluation in Higher Education, 44*(1), 25-36. https://doi.org/10.1080/02602938.2018.1467877

Dawson, P., & Sutherland-Smith, W. (2017). Can markers detect contract cheating? Results from a pilot study. *Assessment & Evaluation in Higher Education, 43*(2), 286-293. https://doi.org/10.1080/02602938.2017.1336746

Dawson, P., & Sutherland-Smith, W. (2019). Can training improve marker accuracy at detecting contract cheating? A multi-disciplinary pre-post study. *Assessment & Evaluation in Higher Education, 44*(5), 715-725. https://doi.org/10.1080/02602938.2018.1531109

Dehouche, N. (2021). Plagiarism in the age of massive Generative Pre-trained Transformers (GPT-3). *Ethics in Science and Environmental Politics, 21*, 17-23. https://doi.org/10.3354/esep00195

Dial, E. (2016). *Assessment for Learning: A practical approach for the classroom*. Rowman & Littlefield Publishing Group.

Earl, L., & Katz, E. (2006). *Rethinking classroom assessment with purpose in mind: Assessment for Learning, Assessment ss Learning, Assessment of Learning*. Government of Manitoba.

East, J. (2009). Aligning policy and practice: An approach to integrating academic integrity. *Journal of Academic Language and Learning, 3*(1), A38-A51.

Eaton, S. (2021). *Plagiarism in higher education: Tackling tough topics in academic integrity*. Bloomsbury.

Eaton, S. (2023). Global perspectives on academic integrity. In S. Eaton (Ed.), *Handbook of academic integrity.* (2nd ed.). Springer.

Eaton, S., Chibry, N., Toye, M., & Rossi, S. (2019). Interinstitutional perspectives on contract cheating: A qualitative narrative exploration from Canada. *International Journal for Educational Integrity, 15*(9). https://doi.org/10.1007/s40979-019-0046-0

Ellis, C., van Haeringen, K., Harper, R., Bretag, T., Zucker, I., McBride, S., Rozenberg, P., Newton, P., & Saddiqui, S. (2019). Does authentic assessment assure academic integrity? Evidence from contract cheating data. *Higher Education Research & Development, 39*(3), 454-469. https://doi.org/10.1080/07294360.2019.1680956

European Network for Academic Integrity (ENAI). (2018). *Glossary for Academic Integrity. https://www.academicintegrity.eu/wp/*

Evans, C. (2013). Making sense of assessment feedback in higher education. *Review of Educational Research, 83*(1), 70-120. https://doi.org/https://doi.org/10.3102/0034654312474350

Evans, C. (2020). *Enhancing assessment feedback practice in higher education: the EAT framework* (Extended Version ed.). Griffith University.

Finchilescu, G., & Cooper, A. (2017). Perceptions of Academic Dishonesty in a South African University: A Q-Methodology Approach. *Ethics & Behavior, 28*(4), 284-301. https://doi.org/10.1080/10508422.2017.1279972

Frey, B., Schmitt, V., & Allen, J. (2012). Defining authentic classroom assessment. *Practical Assessment, Research, and Evaluation, 17*(2). https://doi.org/10.7275/sxbs-0829

Gage, N. L. (1989). The paradigm wars and their aftermath a "historical" sketch of research on teaching since 1989. *Educational Researcher, 18*(7), 4-10. https://doi.org/10.3102/0013189X018007004

Gibbs, G., & Simpson, C. (2004). Conditions Under Which Assessment Supports Students' Learning. *Learning and Teaching in Higher Education, 1*, 3-31. https://doi.org/10.1007/978-3-8348-9837-1.

Griffiths, P., & Norman, I. (2011). What is a nursing research journal? *International Journal of Nursing Studies, 48*(11), 1311-1314. https://doi.org/10.1016/j.ijnurstu.2011.09.006

Güney , Z. (2023). The Effect of Timely Online Feedback on Student Achievement. *Pearson Journal of Social Sciences & Humanities, 8*(25). https://doi.org/10.5281/zenodo.8428440

Halaweh, M. (2023). ChatGPT in education: Strategies for responsible implementation. *Contemporary Educational Technology, 15*(2). https://doi.org/10.30935/cedtech/13036

Hammersley, M. (2013). *What is Qualitative Research?* Bloomsburg Academic.

Hard, S., Conway, M., & Moran, A. (2006). Faculty and colleges student beliefs about the frequency of student academic misconduct. *The Journal of Post-secondary Education, 77*(6), 1058-1080. https://doi.org/10.1080/00221546.2006.11778956

Harlen, W. (2012). On the Relationship between Assessment for Formative and Summative purpose. In Gardner, J. (Ed.), *Assessment and Learning* (2nd ed.). SAGE Publications. https://doi.org/10.4135/9781446250808

Harrison, H., Birks, M., Franklin, R., & Mills, J. (2017). Case study research: Foundations and methodological orientations. *Forum: Qualitative Social Research*.

Hattie, J., & Clarke, S. (2018). *Visible learning: Feedback* (1st ed.). Routledge.

Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research, 77*(1), 81-112. https://doi.org/https://doi.org/10.3102/003465430298487

Higher Education Authority (HEA). (2024). *Atlantic Technological University*. https://hea.ie/higher-education-institutions/atlantic-technological-university/rity (hea.ie)

Henderson, M., Ryan, T., Boud, D., Dawson, P., Phillips, M., Molloy, E., & Mahoney, P. (2019). The usefulness of feedback. *Active Learning in Higher Education, 22*(3), 229-243. https://doi.org/https://doi.org/10.1177/1469787419872393

Herrington, J., & Herrington, A. (2006). Authentic assessment and multimedia: How university students respond to a model of authentic assessment. *Higher Education Research & Development, 17*(3), 305-322. https://doi.org/10.1080/0729436980170304

Hidayat, M., Hariyatmi, Astuti, D., Sumintono, B., Meccawy, M., & Khanzada, T. (2023). Digital competency mapping dataset of per-service teachers in Indonesia. *Data in Brief, 49*. https://doi.org/10.1016/j.dib.2023.109310

Hill, G., Mason, J., & Dunn, A. (2021). Contract cheating: An increasing challenge for global academic community arising from COVID-19. *Research and Practice in Technology Enhanced Learning, 16*. https://doi.org/10.1186/s41039-021-00166-8

Huxham, M. (2007). Fast and effective feedback: are model answers the answer? *Assessment & Evaluation in Higher Education, 32*(6), 601-611. https://doi.org/10.1080/02602930601116946

Ifendthaler, D., Eseryel, D., & Ge, X. (2012). *Assessment in game-based learning*. Springer. https://doi.org/10.1007/978-1-4614-3546-4

International Center for Academic Integrity (ICAI), (2021). *The Fundamental Values of Academic Integrity*. https://academicintegrity.org/resources/Fundamental-Values

Jaiswal, P. (2019). Using constructive alignment to foster teaching learning processes. *English Language Teaching, 12*(6). https://doi.org/10.5539/elt.v12n6p10

Jensen, L., Bearman, M., & Boud, D. (2022). Feedback encounters: Towards a framework for analysing and understanding feedback processes. *Assessment & Evaluation in Higher Education, 48*(1), 121-134. https://doi.org/10.1080/02602938.2022.2059446

Jessop, T., & Tomas, C. (2016). The implications of programme assessment patterns for student learning. *Assessment & Evaluation in Higher Education, 42*(6), 990-999. https://doi.org/10.1080/02602938.2016.1217501

Johnson, C., Weerasuria, M., & Keating, J. (2020). Effect of face-to-face verbal feedback compared with no or alternative feedback on the objective workplace task performance of health professionals: A systematic review and meta-analysis. *BMJ Open, 10*(3). https://doi.org/10.1136/
bmjopen-2019-030672

Jonsson, A., & Panadero, E. (2018). Facilitating Students' Active Engagement with Feedback. In A. Lipnevich & J. Smith (Eds.), *The Cambridge handbook for instructional feedback*. Cambridge University Press.

Kaushik, V., & Walsh, C. (2019). Pragmatism as a research paradigm and its implications for schoolwork research. *Social Sciences, 8*(9). https://doi.org/10.3390/socsci8090255

Keinänen, M., Ursin, J., & Nissinen, K. (2018). How to measure students' innovation competences in higher education: Evaluation of an assessment tool in authentic learning environments. *Studies in Educational Evaluation, 58*, 30-36. https://doi.org/10.1016/j.stueduc.2018.05.007

Khaled, F., & Al-Tamimi, M. (2020). Plagiarism detection methods and tools: An overview. *Iraqi Journal of Science, 62*(8), 2771-2783. https://doi.org/10.24996/ijs.2021.62.8.30

King, N., Horrocks, C., & Brooks, J. (2019). *Interviews in qualitative research* (2nd ed.). Sage Publishers.

Kvale, S., & Brinkmann, S. (2009). *Interviews: Learning the Craft of Qualitative Research Interviewing*. SAGE Publications.

Lincoln, Y., & Guba, E. (1985). *Naturalistic Inquiry.* Sage Publications.

Lincoln, Y., & Guba, e. (2005). Paradigmatic Controversies, Contradictions, and Emerging Confluences. In N. Denzin & Y. Lincoln (Eds.), *The Sage Handbook of Qualitative Research.* (3rd ed., pp. 191-215). Sage Publications.

Lincoln, Y., Lynham, A., & Guba, E. (2018). Paradigmatic controversies, contradictions, and emerging confluences, revisited. In N. Denzin & Y. Lincoln (Eds.), *The Sage Handbook of Qualitative Research.* (pp. 97-128). Sage.

Lipnevich, A., & Panadero, E. (2021). A review of feedback models and theories: Descriptions, definitions and conclusions. *Frontiers in Education, 6*. https://doi.org/10.3389/feduc.2021.720195

Lipnevich, A., & Smith, J. (2009). Effects of differential feedback on students' examination performance. *Journal of Experimental Psychology, 15*(4), 319-333. https://doi.org/10.1037/a0017841

Lombardi, M. (2008). Making the grade: The role of assessment in authentic learning. *EDUCAUSE*.

Macdonald, R., & Carrol, J. (2006). Plagiarism - A complex issue requiring a holistic institutional approach. *Assessment & Evaluation in Higher Education, 31*(2), 233-245. https://doi.org/10.1080/02602930500262536

Macdonald, R., & Joughin, G. (2009). Changing assessment in higher education: A model in support of institution-wide improvement. In G. Joughin (Ed.), *Assessment, learning and judgement in higher education* Springer.

Macfarlane, B., Zhang, J., & Pun, A. (2012). Academic integrity: A review of the literature. *Studies in Higher Education*, 339-358. https://doi.org/10.1080/03075079.2012.709495

Mahajan, M., & Singh, M. (2017). Importance and benefits of learning outcomes. *Journal of Humanities and Social Science, 22*(3), 65-67. https://doi.org/10.9790/0837-2203056567

Mansoorizadeh, M., Rahgooy, T., & Hamedan, I. (2016). Persian plagiarism detection using sentence correlations. CEUR Workshop Proceedings.

Menter, I., Elliot, D., Hulme, M., Lewin, J., & Lowden, K. (2011). *A Guide to Practitioner Research in Education*. SAGE Publications Ltd.

Mertens, D. (2019). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods.* (5th ed.). Sage Publications

Meyer, L. H., Davidson, S., McKenzie, L., Rees, M., Anderson, H., Fletcher, R., & Johnston, P. (2010). An investigation of tertiary assessment policy and practice: Alignment and contradictions. *Higher Education Quarterly, 64*(3), 331-350. https://doi.org/https://doi.org/10.1111/j.1468-2273.2010.00459.x

Morgan, D. L. (2007). Paradigms lost and pragmatism regained: Methodological implications of combining qualitative and quantitative methods. *Journal of Mixed Methods Research, 1*, 48-76.

Morris, E. (2018). Academic integrity matters: Five considerations for addressing contract cheating. *International Journal for Educational Integrity, 14*. https://doi.org/10.1007/s40979-018-0038-5

Morris, R., Perry, T., & Wardle, L. (2021). Formative assessment and feedback for learning in higher education: A systematic review. *Review of Education, 9*(3). https://doi.org/10.1002/rev3.3292

Mphahlele, A., & McKenna, S. (2019). The use of turnitin in the higher education sector: Decoding the myth. *Assessment & Evaluation in Higher Education, 44*(1), 1-11. https://doi.org/10.1080/02602938.2019.1573971

Nadeem, M., Farag, W., & Helal, M. (2024). *Rethinking Assessment Methodologies in the Era of*
Artificial Intelligence: Expanding Beyond ChatGPT's Scope. Mediterranean Smart Cities Conference, Morocco.

Neely, P., & Tucker, J. (2012). Using business simulations as authentic assessment tools. *American Journal of Business Education, 5*(4). https://doi.org/10.19030/ajbe.v5i4.7122

Newton, P. (2007). Clarifying the purposes of educational assessment. *Assessment in Education, 14*(2), 149-170. https://doi.org/10.1080/09695940701478321

National Forum (NF). (2017). *Enhancing our understanding of assessment and feedback in higher education*. (teachingandlearnhttps://hub.teachingandlearning.ie/wp-content/uploads/2021/06/95.-NF-2017-Expanding-our-Understanding-of-Assessment-and-Feedback-in-Irish-Higher-Education.pdfing.ie)

National Forum (NF). (2017). Expanding our Understanding of Assessment and Feedback in Irish Higher Education. 95.-NF-2017-Expanding-our-Understanding-of-Assessment-and-Feedback-in-Irish-Higher-Education.pdf (teachingandlearning.ie)

National Forum (NF). (2019). *Understanding and enabling student success in Irish higher education.* NF-2019-Student-Success-report-web-ready.pdf (teachingandlearning.ie)

Nicol, D. (2010). From monologue to dialogue: improving written feedback processes in mass higher education. *Assessment & Evaluation in Higher Education, 35*(5), 501-517. https://doi.org/10.1080/02602931003786559

Nicol, D. (2012). *From Monologue to Dialogue: Improving Written Feedback Processes in Mass Higher Education*. In S. Hatzipangos & R. Rochon (Eds.), *Approaches to Assessment that Enhance Learning in Higher Education* (1st ed.). Routledge.

Nicol, D. J., & Macfarlane-Dick, D. (2006). Formative assessment and self-regulated learning: A model and seven principles of good feedback practice. *Studies in Higher Education, 31*(2), 199-218. https://doi.org/https://doi.org/10.1080/03075070600572090

O'Neill, G. (2019). Why don't we want to reduce assessment?. *AISHE-J, 11*(2), 1-7.

O'Neill, G., & McMahon, T. (2005). Student-centred learning: What does it mean for students and lecturers. *Emerging issues in the practice if University Learning and Teaching*.

O'Neill, G., & Padden, L. (2021). Diversifying assessment methods: Barriers, benefits and enablers. *Innovations in Education and Teaching International, 59*(4), 398-409. https://doi.org/10.1080/14703297.2021.1880462

Ocholla, D., & Ocholla, L. (2016). Does open access prevent plagiarism in higher education? *African Journal of Library, Archives and Information Science, 26*(2), 187-200.

OpenAI. (2022). *ChatGPT.* https://openai.com/index/chatgpt/

Ortiz-Lopez, A., Olmos-Miguelanez, S., & Sanchez-Prieto, J. (2023). Towards a new educational reality: A mapping review of the role of e-assessment in the new digital context. *Education and Information Technologies, 29*, 7053-7080. https://doi.org/10.1007/s10639-023-12117-5

Panadero, E., Brown, G., & Strijbos, J. (2016). The future of student self-assessment: A review of known unknowns and potential directions. *Education Psychology Review, 28*, 803-830. https://doi.org/10.1007/s10648-015-9350-2

Panadero, E., & Lipnevich, A. (2022). A review of feedback models and typologies: Towards an integrative model of feedback elements. *Educational Research Review, 35*(1). https://doi.org/10.1016/j.edurev.2021.100416

Payne, A., Ajjawi, R., & Holloway, J. (2022). Humanising feedback encounters: a qualitative study of relational literacies for teachers engaging in technology-enhanced feedback. *Assessment & Evaluation in Higher Education, 48*(7), 903-914. https://doi.org/10.1080/02602938.2022.2155610

Phillips, D., & Burbles, N. (2000). *Postpositivism and Educational Research*. Rowman & Littlefield.

Prescott, P. (1989). Academic misconduct: Considerations for educational administrators. *Journal of Professional Nursing, 5*(5), 283-287. https://doi.org/10.1016/8755-7223(89)90041-0

Price, M., O'Donovan, B., & Rust, C. (2011). If I was going there I wouldn't start from here: A critical commentary on current assessment practice. *Assessment & Evaluation in Higher Education, 36*(4), 479-492. https://doi.org/https://doi.org/10.1080/02602930903512883

Quality and Qualifications Ireland (QQI). (2021). *Academic integrity guidelines*. academic-integrity-guidhttps://www.qqi.ie/sites/default/files/2021-11/academic-integrity-guidelines.pdfelines.pdf (qqi.ie)

Quality and Qualifications Ireland (QQI). (2022). *Assessment and Standards*. https://www.qqi.ie/sites/default/files/2022-09/assessment_and_standards-revised-2022.pdf

Ramaprased, A. (1983). On the definition of feedback. *Behavioural Science, 28*(1). https://doi.org/10.1002/bs.3830280103

Rasul, T., Nair, S., Kalendra, D., Robin, M., Santini, D., Ladeira, W., Sun, M., Day, I., Rather, R., & Heathcote, L. (2023). The role of ChatGPT in higher education: Benefits, challenges, and future research directions. *Journal of Applied Learning & Teaching, 6*(1). https://doi.org/10.37074/jalt.2023.6.1.29

Reinholz, D. (2015). The assessment cycle: A model for learning through peer assessment. *Assessment & Evaluation in Higher Education, 41*(2), 301-315. https://doi.org/10.1080/02602938.2015.1008982

Robinson, N. (1999). The use of focus group methodology - with selected examples from sexual health research. *Journal of Advanced Nursing, 29*(4), 905-913. https://doi.org/10.1046/j.1365-2648.1999.00966.x

Robson, C., & McCartan, K. (2016). *Real World Research* (4th ed.). John Wiley & Sons Ltd.

Rose, S., Taylor, L., & Jones, S. (2024). Perceptions of feedback and engagement with feedback among undergraduates: An educational identities approach. *Assessment & Evaluation in Higher Education*, 1-13. https://doi.org/10.1080/02602938.2024.2390933

Roulston, K. (2019). *Interactional Studies of Qualitative Research Interview*. John Benjamins Publishing Company.

Ruoyun, X. (2018). An overview of plagiarism recognition techniques. *International Journal of Knowledge and Language Processing, 9*(2), 1-19.

Sadler. (2010). Beyond feedback: Developing student capability in complex appraisal. *Assessment & Evaluation in Higher Education, 35*(5). https://doi.org/10.1080/02602930903541015

Sadler, D. (1989). Formative assessment and the design of instructional systems. *Instructional Science, 18*, 119-144. https://doi.org/10.1007/bf00117714

Sambell, K., Brown, S., & Graham, L. (2017). *Promoting Student Engagement in Learning: Putting Scholarly Theory into Practice*. In *Professionalism in Practice* (pp. 39-91). Palgrave Macmillan.

Sambell, K., Brown, S., & Race, P. (2019). Assessment to support student learning: Eight challenges for 21st century practice. *AISHE-J, 11*(2).

Sambell, K., & Graham, L. (2011). Towards an assessment partnership model?: Students' experiences of being engaged as partners in Assessment for Learning (AfL) enhancement activity. In S. Little (Ed.), *Staff-Student Partnerships in Higher Education* (pp. 31-47). Continuum International.

Sambell, K., McDowell, L., & Montgomery, C. (2013). *Assessment for Learning in Higher Education*. Routledge.

Sbaffi, L., & Zhao, X. (2022). Evaluating a pedagogical approach to promoting academic integrity in higher education: An online induction program. *Frontiers in Psychology., 13*. https://doi.org/10.3389/fpsyg.2022.1009305

Sefcik, L., Striepe, M., & Yorke, J. (2019). Mapping the landscape of academic integrity education programs: What approaches are effective? *Assessment & Evaluation in Higher Education, 45*(1), 30-43. https://doi.org/10.1080/02602938.2019.1604942

Sembey, R., Hoda, R., & Grundy, J. (2023). Emerging technologies in higher education assessment and feedback practices: A systematic literature review. *SSRN Electronic Journal*, 1-21. https://doi.org/10.2139/ssrn.4328075

Shrivastava, S. (2017). Unplagiarized writing understanding, protecting and staying original for students and academia. *International Journal of Social Sciences and Management, 4*(1). https://doi.org/10.3126/ijssm.v4i1.16434

Shute, V. (2008). Focus on formative feedback. *Review of Educational Research, 78*(1), 153-189. https://doi.org/10.3102/0034654307313795

Simola, S. (2017). Managing for academic integrity in higher education: Insights from behavioral ethics. *Scholarship of Teaching and Learning in Psychology, 3*(1), 43-57. https://doi.org/10.1037/stl0000076

Simons, H. (2009). *Case Study Research in Practice*. SAGE Publications.

Sinclair, H., & Cleland, J. (2007). Undergraduate medical students: Who seeks formative feedback? *Medical Education, 41*(6), 580-582. https://doi.org/10.1111/j.1365-2923.2007.02768.x

Sotiriadou, P., Logan, D., Daly, A., & Guest, R. (2019a). The role of authentic assessment to preserve academic integrity and promote skill development and employability. *Studies in Higher Education, 45*(11), 2132-2148. https://doi.org/10.1080/03075079.2019.1582015

Sotiriadou, P., Logan, D., Daly, A., & Guest, R. (2019b). The role of authentic assessment to preserve academic integrity and promote skill development and employability. *Studies in Higher Education, 45*(11), 2132-2148. https://doi.org/10.1080/03075079.2019.1582015

Spowart, L., Winter, J., Turner, R., Muneer, R., McKenna, C., & Kneale, P. (2017). Evidencing the impact of teaching-related CPD: Beyond the 'happy sheets'. *International journal for Academic Development, 22*(4), 360-372. https://doi.org/10.1080/1360144X.2017.1340294

Sullivan, M., Kelly, A., & McLaughlin, P. (2023). ChatGPT in higher education: Considerations for academic integrity and student learning. *Journal of Applied Teaching and Learning, 6*(1). https://doi.org/10.37074/jalt.2023.6.1.17

Suskie, L. (2018). *Assessing student learning: A common-sense guide* (3rd ed.). Jossey-Bass.

Sutherland-Smith, W. (2008). *Plagiarism, the internet, and student learning - Improving academic integrity.* Routledge.

Swaffield, S. (2011). Getting to the heart of authentic assessment for learning. *Assessment in Education: Principles, Policy & Practice, 18*(4), 433-449. https://doi.org/10.1080/0969594X.2011.582838

Tai, J., Ajjawi, R., Boud, D., Dawson, P., & Panadero, E. (2017). Developing evaluative judgement: Enabling students to make decisions about the quality of work. *Higher Education., 76*, 467-481. https://doi.org/10.1007/s10734-017-0220-3

Taras, M. (2002). Using assessment for learning and learning from assessment. *Assessment & Evaluation in Higher Education, 27*(6), 501-510. https://doi.org/10.1080/0260293022000020273

Taras, M. (2005). Assessment - summative and formative - some theoretical reflections. *British Journal of Educational Studies, 53*(4), 466-478. https://doi.org/10.1111/j.1467-8527.2005.00307.x

Tinto, V. (2015). Through the eyes of students. *Journal of College Student Retention: Research, Theory & Practice, 19*(3). https://doi.org/10.1177/1521025115621917

Tomas, C., & Jessop, T. (2018). Struggling and juggling: A comparison of student assessment loads across research and teaching-intensive universities. *Assessment & Evaluation in Higher Education, 44*(1), 1-10. https://doi.org/10.1080/02602938.2018.1463355v

Topping, K. (2017). Peer assessment: Learning by judging and discussing the work of other learners. *Interdisciplinary Education and Psychology, 1*(7), 1-17.

https://doi.org/10.31532/InterdiscipEducPsychol.1.1.007

Van den Berg, I., Admiraal, W., & Pilot, A. (2006). Design principles and outcomes of peer assessment in higher education. . *Studies in Higher Education, 31*, 341-356. https://doi.org/10.1080/03075070600680836

Villarroel, V., Bloxham, S., Bruna, D., Bruna, C., & Herrera-Seda, C. (2018). Authentic assessment: Creating a blueprint for course design. *Assessment & Evaluation in Higher Education, 43*(5), 840-854. https://doi.org/10.1080/02602938.2017.1412396

Villarroel, V., Boud, D., Bloxham, S., Bruna, D., & Bruna, C. (2019). Using principles of authentic assessment to redesign written examinations and tests. *Innovations in Education and Teaching International, 57*(1), 38-49. https://doi.org/10.1080/14703297.2018.1564882

Walker, J. (2009). Measuring plagiarism: researching what students do, not what they say they do. . *Studies in Higher Education, 35*(1), 41-59. https://doi.org/10.1080/03075070902912994

Weber-Wulff, D. (2016). Plagiarism detection software: Promises, pitfalls, and practices. In T. Bretag (Ed.), *Handbook of Academic Integrity* (pp. 625-638). Springer Singapore.

Wiggins, G. (1998). *Educational assessment: Designing assessments to inform and improve student performance*. John Wiley.

William, D. (2011). What is assessment for learning? *Studies in Educational Evaluation, 37*(1), 3-14. https://doi.org/10.1016/j.stueduc.2011.03.001.

Williams, R. (2020). The paradigm wars: Is MMR really a solutions? *American Journal of Trade and Policy, 7*(3). https://doi.org/10.18034/ajtp.v7i3.507

Winstone, N., & Carless, D. (2019). *Designing effective feedback processes in Higher Education: A learning focused approach*. Routledge.

Winstone, N., Nash, R., Parker, M., & Rowntree, J. (2017a). Supporting learners' agentic engagement with feedback: A systematic review and a taxonomy of recipience processes. *Educational Psychologist, 2*(1), 1-21. https://doi.org/http://dx.doi.org/10.1080/00461520.2016.1207538

Winstone, N., Nash, R., Rowntree, J., & Parker, M. (2017b). 'It'd be useful, but I wouldn't us it': Barriers to university students' feedback seeking and recipience. *Studies in Higher Education, 42*(11), 2026-2041. https://doi.org/10.1080/03075079.2015.1130032

Withey, C. (2013). Feedback Engagement: Forcing Feed-Forward amongst Law Students. *The Law Teacher, 47*, 319-344. https://doi.org/10.1080/03069400.2013.851336

Yakovchuk, N., Badge, J., & Scott, J. (2011). Staff and student perspectives on the potential of honour codes in the UK. *International Journal for Educational Integrity, 7*(2). https://doi.org/10.21913/IJEI.v7i2.762

Yan, Y., & Boud, D. (2021). Conceptualising assessment-as-learning. In *Assessment as Learning* (pp. 11-24). Routledge. https://doi.org/10.4324/9781003052081-2.

Yan, Z., & Yang, L. (2021). Conceptualising Assessment-as-Learning. In Z. Yan & L. Yang (Eds.), *Assessment as Learning: Maximising opportunities for student learning and achievement* (1st ed., pp. 1-8). Routledge.

Yu, S., Zheng, Y., Jiang, C., Liu, C., & Xu, Y. (2021). I Even Feel Annoyed and Angry: Teacher Emotional Experiences in Giving Feedback on Student Writing. *Assessing Writing, 48*. https://doi.org/10.1016/j.asw.2021.100528.

Šprajc, P. U., M Jerebic, J Trivan, D Jereb, E. (2017). Reasons for plagiarism in higher education. *Organizacija, 50*. https://doi.org/10.1515/orga-2017-0002

Appendices

Appendix A

Study Involvement Information Sheet

Re-imagining Assessment and Feedback for Student Success in the Atlantic Technological University

Academic Staff Involvement Information

The Re-imagining Assessment and Feedback for Student Success project is a collaboration between Atlantic Technological University (ATU) Teaching and Learning Offices. The study is supported by the National Forum for the Enhancement of Teaching and Learning in Ireland. The first phase of this project was carried out with three programmes within ATU: BA in Law and Criminal Justice (ATU Donegal Letterkenny), BA in Sociology and Politics (ATU Sligo), and BSc in Medical Science (ATU Galway - Mayo). The first phase of the project worked with academic leads and students from the three programmes to explore the range of assessment and feedback practices.

Through phase one of the project there have been a variety of outputs:

- An audit and review process of the current assessment and feedback processes on the three programmes
- A graduate and current undergraduate survey with detailed feedback on the student experience
- A series of Assessment Masterclass sessions, available at: Assessment Masterclasses - Digital Ed
- Showcasing events held in Sligo, to present and discuss authentic assessment and feedback practices

- The development of an Assessment Resource Directory, available at: Assessment Resources - Digital Ed
- An end of phase one symposium to showcase findings from the project, available to watch at: Assessment Masterclasses - Digital Ed

Re-imagining Assessment and Feedback Phase Two:

The Re-imagining Assessment and Feedback project will run again this year with the three different programmes from ATU Donegal, Sligo and Galway-Mayo.

This year the project will work on with the themes provided by the National Forum:

- Digital Transformation in Teaching and Learning
- Academic Integrity Initiatives
- Education for Sustainability

What will be asked of the volunteering programmes:

- To engage with the project team by sharing and discussing assessment and feedback processes currently in place on the programme
- To take part in an academic staff survey in relation to assessment, feedback and academic integrity

- There is 2 hours per semester of lecturer time in 2022/23 to support the project – This can either be one programme board lecturer x 2 hours per semester or two programme board lecturers x 1 hour per semester
- The participating lecturers are asked to attended steering group meetings during the year and provide feedback on survey question design
- A student survey will be developed and sent to students on the programme about their experience with assessment, feedback and understanding of academic integrity
- A number of focus group sessions will be arranged, with staff and students (separately), to discuss assessment and feedback experiences, participation in the focus group will be voluntary
- Voluntary student representatives will be invited to steering group meetings and showcasing events
- A series of masterclass session will be run over the course of the year and will be open to all staff in ATU to attend
- Academic staff will have the opportunity to showcase various authentic assessment and feedback process used on their programme
- Produce and share an assessment toolkit for a module they teach including relevant rubric(s), assessment criteria, marking scheme, assessment literacy resource, re-useable learning objects, academic integrity education resources etc.
- Run local awareness sessions with their programme board members on accessing and engaging with the re-imagining assessment resources on DigitalEd knowledge platform
- Take part in DigitalEd 2023 and act as a facilitator on the Assessment Hackathon Day planned across the ATU
- A symposium will be held at the end of the project to showcase findings and outputs
- This project will feed into a master's in education (M.Ed.) research study being conducted by Emma McDonald (research assistant)

Appendix B

Student Questionnaire

Re-imagining Assessment and Feedback for Student Success in the ATU- Student Questionnaire

This survey forms part of the Re-imagining Assessment and Feedback for Student Success in the ATU research study led by Dr Carina Ginty (ATU Galway-Mayo), Dr Niamh Plunket (ATU Sligo), Dr Deirdre McClay (ATU Donegal), and Gavin Clinch (ATU Sligo). The study will also be used as part of Emma McDonald's Masters in Education.

If you have any questions or comments on the survey, please contact: Emma.mcdonald@research.atu.ie

The survey will take approximately 15-20 minutes to complete.

Please read each question carefully and provide the response that most closely represents your answer.

Section 1

About the Re-imagining Assessment for Student Success in ATU Survey

The survey is targeted at the current students enrolled on the three new programmes participating in the research study: Quality for industry (ATU Galway-Mayo), Occupation Safety and Health (ATU Sligo) and Construction Contracts Management (ATU Donegal). The findings will be used to understand more about the experiences of students in relation to assessment. Participation in the Re-imagining Assessment and Feedback for Student Success in the ATU Survey is confidential. This questionnaire forms part of a Master's in Education Research Study for Emma McDonald.

The data will be stored on ATU's secured network. Only the research team in the ATU will have access to the dataset. This data will be stored on password-protected computers and folders in the ATU and compliant with GDPR requirements and the survey dataset will be accessible only by the research team. This dataset will be stored for a minimum of 3 and a maximum of 7 years, at which point it will be deleted. The anonymized survey data will be analyzed by researchers in the ATU.

1. CONSENT TO DISCLOSE & SHARE INFORMATION *

- ○ I consent to the re-imagining assessment and feedback research team recording this information in electronic format and understand that this information will be shared with appropriate internal and external staff and organisations and stored in a safe manner. I understand these findings will be used to understand more about the assessment experiences of students who are enrolled in the specified courses in the ATU.

2. Which of these courses are you currently enrolled in? *

- ◯ BSc Quality for Industry (ATU Galway-Mayo)
- ◯ BSc Occupation Safety and Health (ATU Sligo)
- ◯ BSc in Construction Contracts Management (ATU Donegal)

3. What is year of study are you currently in? *

- ◯ Year 1
- ◯ Year 2
- ◯ Year 3
- ◯ Year 4
- ◯ 1 year top up
- ◯ Other

4. Which age bracket best describes your current age? *

- ◯ 18-22
- ◯ 23-27
- ◯ 28-32
- ◯ 33-37
- ◯ 38-42
- ◯ 43-47
- ◯ 48-52
- ◯ 53+

5. What is your gender? *

- ◯ Male
- ◯ Female
- ◯ Prefer not to say
- ◯ Other

6. Have you any previous Higher Education qualifications? *

- ◯ Yes
- ◯ No

7. Please list details of Higher Education qualifications? *

Enter your answer

Course assessment experience

8. Have you completed a variety of assessment types in your course? (assessment type refers to the different forms of assessment e.g. MCQ's, written exams, presentations etc.) *

- ◯ Yes
- ◯ No

9. Are you satisfied with the range of assessment types on this course? *

- ◯ Yes
- ◯ No

10. Please explain why you are satisfied/dissatisfied with the range of assessment types on your course? *

Enter your answer

11. Are you satisfied with the timing and quantity of assessments on your course? *

- ◯ Yes
- ◯ No

12. Could you suggest ways to help improve the timing and quantity of assessments on your course? *

Enter your answer

Assessment types experience

Please indicate the extent to which you agree or disagree with each of the statements below.

13. Overall Assessment Experience *

	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
I feel that there is a good variety of assessments on this course	◯	◯	◯	◯	◯
Assessments have helped me gain a better understanding of my course materials	◯	◯	◯	◯	◯
Activities/Assessments that are not graded contribute to my learning	◯	◯	◯	◯	◯
Feedback which I have received on assessments has been meaningful and beneficial to my learning	◯	◯	◯	◯	◯
Working as part of a group helps to improve my teamwork skills	◯	◯	◯	◯	◯
I always understand what I am being asked to do for an assessment	◯	◯	◯	◯	◯
I put a lot of time into ensuring that my assignments are done to a good standard	◯	◯	◯	◯	◯
Assessments have helped support my learning	◯	◯	◯	◯	◯
The quantity/volume of assessment was appropriate for the percentage allocated to the module grade	◯	◯	◯	◯	◯

14. How satisfied are you that these different assessment types assess your knowledge of a subject/module? *

	Very dissatisfied	Somewhat dissatisfied	Neutral	Somewhat satisfied	Very satisfied	Have not completed this assessment type yet
Articles (writing and/or reviewing articles)	○	○	○	○	○	○
Blogs	○	○	○	○	○	○
Business Plan	○	○	○	○	○	○
Case Studies	○	○	○	○	○	○
Debates	○	○	○	○	○	○
Dissertation/Thesis	○	○	○	○	○	○
Porfolio/ePortfolio	○	○	○	○	○	○
Essay/Essay plan	○	○	○	○	○	○
Role play	○	○	○	○	○	○
Examination written- closed book	○	○	○	○	○	○
Group based assessments	○	○	○	○	○	○
Laboratory reports	○	○	○	○	○	○
Literature review	○	○	○	○	○	○
Open-book examinations	○	○	○	○	○	○
Multiple choice questions (MCQ's)	○	○	○	○	○	○
Oral examinations	○	○	○	○	○	○
Peer graded assessments	○	○	○	○	○	○
Presentations (Face to face/virtual/video)	○	○	○	○	○	○
Practical assessments	○	○	○	○	○	○
Research project	○	○	○	○	○	○

15. Could you please list any assessment types that are not listed above and provide your level of satisfaction that these assessment types assess your knowledge of a subject/module? *

Enter your answer

Feedback

16. Do you think receiving feedback regularly enhances your learning experience? *

- ◯ Yes
- ◯ No

17. What do you think are the benefits of receiving feedback on assessments/coursework? *

Enter your answer

18. What do you think are the drawbacks of receiving feedback on assessments? *

Enter your answer

19. When receiving feedback on assessments, do you often receive any of the following types of feedback? (please select all that apply) *

- ☐ Verbal individual feedback
- ☐ Written individual feedback
- ☐ Peer feedback
- ☐ Feedback discussions in class
- ☐ Verbal group feedback
- ☐ Written group feedback
- ☐ Rubric/marking scheme
- ☐ Other

20. Which of the following most accurately reflects how often you receive feedback on assessments and coursework? *

- ◯ Every assessment/coursework
- ◯ For the majority of assessments/coursework
- ◯ For some assessments/coursework
- ◯ I rarely received feedback on assessments/coursework
- ◯ I never received feedback on assessments/coursework

21. How long on average does it take for you to receive feedback on assessments? *

- ◯ Within a week
- ◯ Between 1-2 weeks
- ◯ Between 2-3 weeks
- ◯ After a month
- ◯ Other

22. What is your preferred timeframe for receiving feedback and why? *

Enter your answer

23. Do you have any suggestions to help improve feedback on this course?

Enter your answer

Assessments/activities that do not contribute to your final grade

Formative assessment does not form part of the student's final grade or mark. It is used to provide constructive feedback to improve learning and understanding (UCD, 2010)

24. Are you ever asked to complete learning activities in your modules that do not contribute towards your final grade? (also known as formative assessment) *

- ◯ Yes
- ◯ No

25. Please select any of the following activities which you have completed throughout your course (choose all that apply) *

- ☐ Quiz (Kahoot, Moodle, Blackboard, Practice, other)
- ☐ Crosswords
- ☐ Padlet Activities
- ☐ Worksheets
- ☐ Mindmaps
- ☐ Table Quiz
- ☐ Discussion forums
- ☐ Mentimeter/Vevox
- ☐ Peer/Self assessment feedback
- ☐ Case studies
- ☐ Other

26. How often do you complete learning activities that do not contribute to your final grade? *

- ◯ Several times a week
- ◯ Once a week
- ◯ Once every two weeks
- ◯ Once a month
- ◯ Never

27. Do you feel like these activities can help assess your knowledge/learning of the module materials? *

- ◯ Yes
- ◯ No

Section 7

Authentic Assessments

Authentic assessment is a form of assessment which involves students conducting 'real world' tasks in meaningful contexts (Swaffield, 2011). Fostering an increased focus on, and better understanding of, authentic assessment therefore aligns with the aim of empowering and engaging students through assessment. The development of engaging and diverse assessments also aligns with the key principles of an inclusive assessment approach (universal design; CAST, 2011), which supports the growing diversity of students in the Irish higher education sector.

28. Have you completed any assessments in your course that you felt were authentic and will help you prepare for your future career? (see definition above) *

- ◯ Yes
- ◯ No

28. Have you completed any assessments in your course that you felt were authentic and will help you prepare for your future career? (see definition above) *

- ◯ Yes
- ◯ No

29. Could you list some assessments that you felt were authentic and explain how they will help prepare you for your career? *

Enter your answer

30. Could you describe the authentic assessment learning experience and what was involved? *

Enter your answer

Section 8 ...

Academic Integrity

31. In your own words, please describe what you believe the term Academic Integrity means and discuss your understanding of the term *

Enter your answer

32. Do you feel that you have a clear understanding and know your responsibilities regarding Academic Integrity? *

- ◯ Yes
- ◯ No

33. In your opinion, do you feel that students have a clear understanding of what is expected from them in terms of Academic Integrity? *

- ◯ Yes
- ◯ No

34. Are you familiar with any resources within ATU that provide information regarding Academic Integrity? *

- ◯ Yes
- ◯ No

35. Could you please list any resources you are familiar with information regarding Academic Integrity? *

Enter your answer

36. Have you any suggestions to improve students understanding of their responsibilities with Academic Integrity? *

Enter your answer

Covid-19 Learning Experience

37. Could you describe your experience with assessment throughout the Covid-19 pandemic? *

Enter your answer

38. Could you identify any benefits from the changes to assessment during the Covid-19 Pandemic? *

- ◯ Yes
- ◯ No
- ◯ I don't know

39. Could you describe the benefits of the changes to assessment during the Covid-19 Pandemic?

Enter your answer

General Assessment Feedback

40. Could you make some suggestions on how your experience with assessments could be improved? *

Enter your answer

41. Would you be interested in volunteering to be part of a focus group to discuss the assessments from your course? *

- ◯ Yes
- ◯ No

42. If you wish to be part of the focus group could you please provide your email address?

Enter your answer

Appendix C

Academic Staff Questionnaire

Re-imagining Assessment and Feedback for Student Success in the ATU staff survey

This survey forms part of the Re-imagining Assessment and Feedback for Student Success in the ATU research study led by Dr Carina Ginty (ATU Galway-Mayo), Dr Niamh Plunket (ATU Sligo), Dr Deirdre McClay (ATU Donegal), and Gavin Clinch (ATU Sligo). The study will also be used as part of Emma McDonald's Masters in Education.

If you have any questions or comments on the survey, please contact: Emma.mcdonald@research.atu.ie

The survey will take approximately 15-20 minutes to complete.

Please read each question carefully and provide the response that most closely represents your answer.

Section 1

About the Re-imagining Assessment for Student Success in the ATU Survey

The survey is targeted at academic staff currently teaching on the three new programmes participating in the research study: Quality for industry (ATU Galway-Mayo), Occupation Safety and Health (ATU Sligo) and Construction Contracts Management (ATU Donegal). The findings will be used to understand more about the experiences of students in relation to assessment. Participation in the Re-imagining Assessment and Feedback for Student Success in the ATU Survey is confidential.

The data will be stored on ATU's secured network. Only the research team in the ATU will have access to the dataset. This data will be stored on password-protected computers and folders in the ATU and compliant with GDPR recommendations and the survey dataset will be accessible only by the research team. This dataset will be stored for a minimum of 3 and a maximum of 7 years, at which point it will be deleted. The anonymised survey data will be analysed by researchers in the ATU.

1. CONSENT TO DISCLOSE & SHARE INFORMATION *

- ○ I consent to the re-imagining assessment and feedback research team recording this information in electronic format and understand that this information will be shared with appropriate internal and external staff and organisations and stored in a safe manner. I understand these findings will be used to understand more about the assessment experiences of students who are enrolled in the specified courses in the ATU.

Profile

2. Which of these courses are you currently lecturing in? *

- ◯ BSc Quality for Industry (ATU Galway-Mayo)
- ◯ BSc Occupation Safety and Health (ATU Sligo)
- ◯ BSc in Construction Contracts Management (ATU Donegal)

3. What module/modules do you teach? *

Enter your answer

4. What is your gender? *

- ◯ Male
- ◯ Female
- ◯ Prefer not to say
- ◯ Other

Background

5. Could you please list your academic qualifications? *

Enter your answer

6. How many years of teaching experience do you have? *

Enter your answer

7. Prior to teaching in ATU, have you taught in any other institutes? *

- ◯ Yes
- ◯ No
- ◯ Prefer not to say

8. If the answer to the previous question is 'Yes', please list the other institutions you have taught in *

Enter your answer

9. Have you completed the formal Teaching and Learning Certificate/ Training/ Diploma? *

- ◯ Yes
- ◯ No

10. If you have completed a formal Teaching and Learning Certificate, could you please list what training you have completed and what institute you completed it in? *

Enter your answer

11. Were you involved in phase 1 of the Re-imagining Assessment and Feedback project? *

- ◯ Yes
- ◯ No

Course assessment

12. Do you offer a variety of assessment types on the modules you teach? *

- ◯ Yes
- ◯ No

13. Could you please describe the various assessment practices you use? *

Enter your answer

14. How satisfied are you that these different assessment types assess students knowledge of a subject/module?
*

	Very dissatisfied	Somewhat dissatisfied	Neutral	Somewhat satisfied	Very satisfied	To date, I have not used this type of assessment in my teaching
Articles (writing and/or reviewing articles)	○	○	○	○	○	○
Blogs	○	○	○	○	○	○
Business Plan	○	○	○	○	○	○
Case Studies	○	○	○	○	○	○
Debates	○	○	○	○	○	○
Dissertation/Thesis	○	○	○	○	○	○
Porfolio/ePortfolio	○	○	○	○	○	○
Essay/Essay plan	○	○	○	○	○	○
Role play	○	○	○	○	○	○
Examination written- closed book	○	○	○	○	○	○
Group based assessments	○	○	○	○	○	○
Laboratory reports	○	○	○	○	○	○
Literature review	○	○	○	○	○	○
Open-book examinations	○	○	○	○	○	○
Multiple choice questions (MCQ's)	○	○	○	○	○	○
Oral examinations	○	○	○	○	○	○
Peer graded assessments	○	○	○	○	○	○
Presentations (Face to face/virtual/video)	○	○	○	○	○	○
Practical assessments	○	○	○	○	○	○
Research project	○	○	○	○	○	○

15. Could you please list any assessment types that are not listed above and provide your level of satisfaction that these assessment types assess students knowledge of a subject/module? *

Enter your answer

Section 6

Feedback

16. When giving feedback on assessments, do you often give any of the following types of feedback? (please select all that apply) *

- [ ] Verbal individual feedback
- [ ] Written individual feedback
- [ ] Peer feedback
- [ ] Feedback discussions in class
- [ ] Verbal group feedback
- [ ] Written group feedback
- [ ] Rubric/marking scheme

17. Which of the following most accurately reflects how often you give feedback on assessments and coursework? *

- ( ) Every assessment/coursework
- ( ) For the majority of assessments/coursework
- ( ) For some assessments/coursework
- ( ) I rarely give feedback on assessments/coursework
- ( ) I never give feedback on assessments/coursework

18. Do you think giving feedback regularly enhances the student learning experience? *

- ◯ Yes
- ◯ No

19. How long on average doe it take for you to give feedback on assessments? *

- ◯ Within a week
- ◯ Between 1-2 weeks
- ◯ Between 2-3 weeks
- ◯ After a month
- ◯ Other

20. What do you think are the benefits of giving feedback on assessments/coursework to students? *

Enter your answer

21. Do you think there are any challenges to providing feedback on assessments? *

- ◯ Yes
- ◯ No

22. Please explain what challenges are faced when providing feedback to students? *

Enter your answer

23. Do you ever ask students to complete learning activities in your modules that do not contribute towards their final grade? *

- ◯ Yes
- ◯ No

24. Please select any of the following activities which you have asked student to take part in on your modules (choose all that apply) *

- ☐ Quiz (Kahoot, Moodle, Blackboard, Practice, other)
- ☐ Crosswords
- ☐ Padlet Activities
- ☐ Worksheets
- ☐ Mindmaps
- ☐ Table Quiz
- ☐ Discussion forums
- ☐ Mentimeter/Vevox
- ☐ Peer/Self assessment feedback
- ☐ Case studies
- ☐ Other

25. Do you feel like these activities are beneficial to student learning? *

- ◯ Yes
- ◯ No

26. If the answer is Yes to the previous question, could you detail how these activities are beneficial to student learning?

Enter your answer

Authentic Assessments

Authentic assessment is a form of assessment which involves students conducting 'real world' tasks in meaningful contexts (Swaffield, 2011). Fostering an increased focus on, and better understanding of, authentic assessment therefore aligns with the aim of empowering and engaging students through assessment. The development of engaging and diverse assessments also aligns with the key principles of an inclusive assessment approach (universal design; CAST, 2011), which supports the growing diversity of students in the Irish higher education sector.

27. Do you offer any assessments in your module that you felt were authentic and will help prepare students for their future career? (see definition above) *

- ◯ Yes
- ◯ No

28. Could you list some assessments that you felt were authentic and explain how they will help prepare students for their career? *

Enter your answer

29. Could you describe the authentic assessment learning experience and what was involved? *

Enter your answer

Academic Integrity

30. In your own words, please describe what you believe the term Academic Integrity means and discuss your understanding of the term *

Enter your answer

31. In your opinion, do you feel that students have a clear understanding of what is expected from them in terms of Academic Integrity? *

- ◯ Yes
- ◯ No

32. Could you please explain why you feel that students do or do not have a clear understanding of the expectations *

Enter your answer

33. What challenges do you face when managing academic integrity with assessments? *

Enter your answer

34. What methods do you use to help manage Academic Integrity issues occurring? *

Enter your answer

Covid-19 Learning Experience

35. Could you describe your experience with adapting assessment throughout the Covid-19 pandemic? *

Enter your answer

36. Could you identify any benefits from the changes to assessment during the Covid-19 Pandemic? *

- ◯ Yes
- ◯ No
- ◯ I don't know

37. Could you describe the benefits of the changes to assessment during the Covid-19 Pandemic?

Enter your answer

General Assessment Feedback

38. Would you be interested in volunteering to be part of a focus group to discuss the assessments from your course? *

- ◯ Yes
- ◯ No

39. If you wish to be part of the focus group could you please provide your email address?

Enter your answer

Appendix D

Academic Staff Interview Guide

Academic Staff Interview Guide

Interview question	**Aim and Objectives**
Are there any areas in your assessment/feedback and/or academic integrity practices that you would like to re-imagine?	**AIM:** To explore current assessment and feedback practices in place cross three programmes in ATU and identify areas that could be re-imagined, in order to help improve the overall learning experience for students.
	Objectives:
What assessment practices are you currently using on the module(s) you teach? Would you think about changing or adapting your assessment practices?	**1.**To discover current assessment practice being used by academic staff, what challenges they face in developing effective assessments, and how students feel these assessments impact their learning and development.
Do you currently give feedback to students on their assessments? Do you think giving feedback has an impact on student learning and development?	**2.**To explore the various methods of feedback on assessments being used and identify which methods students find most beneficial to their learning process.

What has been your experience with giving feedback?	
Do you feel that you have a good understanding of Academic Integrity? Do you think that your students have a good understanding of academic integrity?	**3.**To identify if there is a shared understanding between students and staff of the term academic integrity and how is academic integrity being managed?

Interview format

Introduction: Brief introduction

Get verbal consent for recording

Assessment –

1. What assessment methods are you currently using on the module(s) you teach?
    - What assessment method do you like using the most and why is it your favourite?
    - Follow up with: Can you give me a summary of the assessment?
    - How did you come up with this assessment method?
    - From your perspective, do you think your students enjoy this assessment method than other types that you use?
    - What assessment method do you not like/ dislike using the most and why?
    - Do you think these methods are effective ? What do you consider to be an effective assessment?
    - Do you use what you consider to be authentic assessment methods – discuss.

2. Would you think about changing or adapting your assessment methods?

- Are there any assessment methods you would like to try?
- Is there any issues you have faced in trying to adopt changes/ a different or new assessment type?
- Is there anything that you feel would support you to adopt changes/ a different or new assessment type?

Feedback –

1. Do you currently give feedback to students on their assessments?
    - Tell me about the types of forms of feedback you provide to students for assessments?
    - Do you think that this works well, and students take this feedback on board?
    - Is there any form of feedback that you have thought about using or have tried but stopped?
    - If N – Why don't you give feedback?
    - If N – Have you ever tried any methods of giving feedback?
2. Do you think feedback has an impact on student learning and development?
    - How do you think feedback impacts on student learning? If Y –
    - In your own experience, are there certain forms of feedback which you feel students took on board more readily and others?
    - If N – Why do you think it does not? Discuss.
3. What has been your experience with giving feedback?
    - Positive and/or negative?
    - Challenges/barriers etc

Academic Integrity –

1. Do you think that you have a good understanding of Academic Integrity? – Discuss your understanding? Link into Q 2 – Do you think students think the same?
   - Do you think that there is a shared understanding between students and staff on what academic integrity means?
   - What are your experiences with managing academic integrity? … Ask for example if not offered initially.
   - Have you completed any training on academic integrity?
   - Are there any supports/services that could be developed to help you with manging academic integrity?
2. Do you think that your students have a good understanding of academic integrity?
   - Do you or your programme team provide or direct students to information about academic integrity?
   - Are there any resources/supports that could be useful to inform students about academic integrity?

Closing question –

- From everything discussed in the interview, is there anything around the topics of assessment methods, feedback, and academic integrity which we didn't discuss that you like to talk about before we finish the interview?

Thank interviewee for taking the time out to participate in the interview.

Appendix E

Academic Staff Interview Information and Consent Form

Academic Staff Interview Information Sheet

Title of study: Re-imagining Assessment and Feedback for Student Success in a Technological University

Researcher: Emma McDonald

Contact Information: Emma.mcdonald@research.atu.ie

Supervisory team: Dr. Carina Ginty, Dr. Mary McGrath, and Dr. Kevin Cunningham

Aim of the study:

The aim of this study is to explore the variety of assessment practices and feedback methods used on each programme and how they contribute to student success. This study also explores the challenges surrounding academic integrity on each programme. Data has been gathered from both students and academic staff to get an insight into the experiences with assessment, feedback, and academic integrity through questionnaires and focus groups.

Programmes involved in the study:

The programmes that are involved in this study are BSc Quality for Industry in ATU Galway-Mayo, BSc Occupation Safety and Health in ATU Sligo, and BSc in Construction Contracts Management in ATU Donegal.

Confidentiality:

Any identifiable information will be removed to protect the identity the participant. The data collected will be stored on ATU's secured access. Only the research team will have access to the dataset. This data will be stored on password-protected computers and folders in ATU, and compliant with GDPR recommendations. The focus group and questionnaire dataset will be accessible only by the project research team. This dataset will be stored for a minimum of 3 and a maximum of 7 years, at which point it will be deleted. Participants have the right to withdraw information if they wish to. Please contact the researcher to discuss deletion of any data.

Volunteering:

Academic staff who participate in these interviews will do so voluntarily. For those who wish to participate please fill in the attached consent form and send a copy to Emma.mcdonald@research.atu.ie. The data collected in the interviews will be anonymised.

How the information from this study will be use:

The researcher and supervisory team will have access to the data collected through this study. The data collected through the interviews will be analysed alongside the data from the questionnaire from last semester. The data collected from both the staff questionnaires and interviews will be used to get an insight into assessment, feedback, and academic integrity on each programme. The findings from this study will be developed into a case study as part of the research master's study. The findings will also be developed into a research paper and discussed at academic conferences.

Interview process:

The researcher will be carrying out 6 (2 from each) semi-structured interviews.

The interviews will take place over MS Teams at a specified time depending on each participants availability. The interviews will take approximately 20 minutes. The interviews will be recorded, for transcription purposes. The information gathered from the interviews will be anonymised to protect the identity of the participants.

Further Information:

Please fill out the attached consent form prior to the interviews and return to the research (email below). If you have any questions regarding this study, please feel free to contact Emma McDonald at Emma.mcdonald@research.atu.ie.

Consent Form

Re-imagining Assessment and Feedback for student success in a Technological University

You are being asked for consent to participate in an interview as part of SATLE projects funded under the National Forum for Teaching and Learning and MA in Education for Emma McDonald. The aim of this study is to explore the various assessment and feedback practices in place across three programmes in ATU and identify areas that could be re-imagined improving the overall learning experience for students. The findings from this study will provide insights into assessment and feedback experiences and help identify way in which academic integrity concerns can be managed. Further details about the project are available by contacting Emma.mcdonald@research.atu.ie.

Before proceeding with the interview, please indicate your agreement with the following statements:

Have you been fully briefed on the project? (Please tick the box if the answer is yes)	☐
Is your participation given voluntarily?	YES/NO
Have you had an opportunity to ask questions and discuss this study?	YES/NO
Have you received satisfactory answers to all your questions?	YES/NO
Do you understand that you are free to withdraw from this study? at any time	YES/NO

without giving a reason for withdrawing without affecting your future relationship with the Institute	
Do you accept that the results of this study are likely to be published and any use of focus group data for this purpose will be strictly anonymous?	YES/NO
Do you agree to take part in an interview as outlined?	YES/NO

Participant Signature _____ Date _____

Name in block letters

_____

Signature of researcher _____ Date _____

Appendix F

Student Focus Group Guide

Student Focus Group Guide.

Introduction (5 mins)

- Introduction and supporting information
- Make sure to have consent
- Reason for recording.
- Reminder not to use any names
- Brief overview of Re-imagining Assessment Project
- Purpose of focus group

Assessment (15 mins)

- 2 fav and least fav assessment types and why? (padlet)
- Purpose of assessment (padlet)
- Do you think that there is enough variety of assessment types used in your programme. Why or why not? (discussion)
- If you could make changes to the assessment practices on your course. What would you change? (discussion)
- If there is time look at authentic assessment

Feedback (15 mins)

- Purpose of feedback (padlet)
- Do u think receiving feedback on assessments is beneficial why/why not?(padlet)
- Preferred methods of feedback? (padlet)
- What do you do with the feedback you receive on assessments? (discussion)
- How come feedback be improved? (discussion)

Academic Integrity (15 mins)

- In your own words what does academic integrity mean? (3 mins) (Vevox)
- Discussion about the understandings? (discussion) (link in with next question)
- Where did you get your understanding of academic integrity from? (discussion)
- Do you think it is important why/why not? (padlet)
- Where can you find info on academic integrity? (padlet)

Overall feedback (10 mins)

- If you could change one thing about X (assessment, feedback, academic integrity) what would it be?

Appendix G

Student Focus Group Information Sheet and Consent Form

Student Focus Group Information Sheet

Title of study: Re-imagining Assessment and Feedback for Student Success in a Technological University

Researcher: Emma McDonald

Contact Information: Emma.mcdonald@research.atu.ie

Supervisory team: Dr. Carina Ginty, Dr. Mary McGrath, and Dr. Kevin Cunningham

Aim of the study:

The aim of this study is to explore the variety of assessment practices and feedback methods used on each programme and how they contribute to student success. Getting feedback from students about their experiences will help academic staff to re-evaluate their practices taking into consideration the students experience. This study will also explore the challenges surrounding academic integrity on each programme.

Programmes involved in the study:

The programmes that are involved in this study are BSc in Medical Science and BSc Quality for Industry in ATU Galway-Mayo, BA in Sociology and Politics and BSc Occupation Safety and Health in ATU Sligo, and BA in Law and Criminal Justice and BSc in Construction Contracts Management in ATU Donegal.

Confidentiality:

Any identifiable information will be removed to protect the identity the participant. The data collected will be stored on ATU's secured access. Only the research team will have access to the dataset. This data will be stored on password-protected computers and folders in ATU, and compliant with GDPR recommendations. The focus group and questionnaire dataset will be accessible only by the project research team. This dataset will be stored for a minimum of 3 and a maximum of 7 years, at which point it will be deleted. Participants have the right to withdraw information if they wish to. Please contact the researcher to discuss deletion of any data.

Volunteering:

Students who participate in this study will do so voluntarily. For those who wish to participate please fill in the attached consent form and send a copy to Emma.mcdonald@research.atu.ie. For those who volunteer to take part in the study, you will be asked to complete a comprehensive questionnaire and take part in a focus group session. The focus group session will be recorded by the researcher to correctly transcribe the session. The data collected in this session will be anonymised.

How the information from this study will be use:

The researcher and supervisory team will have access to the data collected through this study. The findings will be shared with each of programmes to facilitate changes in assessment, feedback, and academic integrity. The findings shared with the academic staff will be analysed and anonymised. The findings from this study will be developed into a case study as part of the research master's study. The findings will also be developed into a research paper and discussed at academic conferences.

Further Information:

If you have any questions regarding this study, please feel free to contact Emma McDonald at Emma.mcdonald@research.atu.ie.

Consent form:

Please fill out the attached consent form prior to the focus group session and return to Emma.McDonald@atu.ie.

Consent Form

Re-imagining Assessment and Feedback for student success in a Technological University

You are being asked for consent to participate in a focus group session as part of SATLE projects funded under the National Forum for Teaching and Learning and MA in Education. The aim of this study is to explore the various assessment and feedback practices in place across six programmes in ATU and identify areas that could be re-imagined improving the overall learning experience for students. The findings from this study will provide insights into assessment and feedback experiences and help identify way in which academic integrity concerns can be managed. Further details about the project are available by contacting Emma.mcdonald@research.atu.ie.

Before proceeding with the focus group, please indicate your agreement with the following statements:

Have you been fully briefed on the project? (Please tick the box if the answer is yes)	yes
Is your participation given voluntarily?	YES
Have you had an opportunity to ask questions and discuss this study?	YES
Have you received satisfactory answers to all your questions?	YES
Do you understand that you are free to withdraw from this study?	

at any time without giving a reason for withdrawing without affecting your future relationship with the Institute	YES
Do you accept that the results of this study are likely to be published and any use of focus group data for this purpose will be strictly anonymous?	YES
Do you agree to take part in this focus group as outlined?	YES

Participant Signature _____ Date _____

Name in block letters

_____

Signature of researcher _____ Date _____

Appendix H

Research Ethics Approval

From: ATU Galway-Mayo Research Office <researchoffice.galwaymayo@atu.ie>
Sent: Thursday 16 February 2023 14:26
To: EMMA MC DONALD - RESEARCH <EMMA.MCDONALD@research.atu.ie>
Subject: FW: Decision in regard to Research Ethics Application - 27th January 2023

Hi Emma,

Following your re-submission of your Research Ethics Application based on feedback from the Research Ethics Committee at their meeting dated 27th January 2023, please see below the final outcome of the evaluation.

Project Title: Re-imagining Assessment and Feedback for Student Success in Higher Education

Decision: Ethical approval has been granted for the above project.

Kind regards

Helen
On behalf Dr Lisa Ryan
Chair, ATU Galway Interim Research Ethics Committee

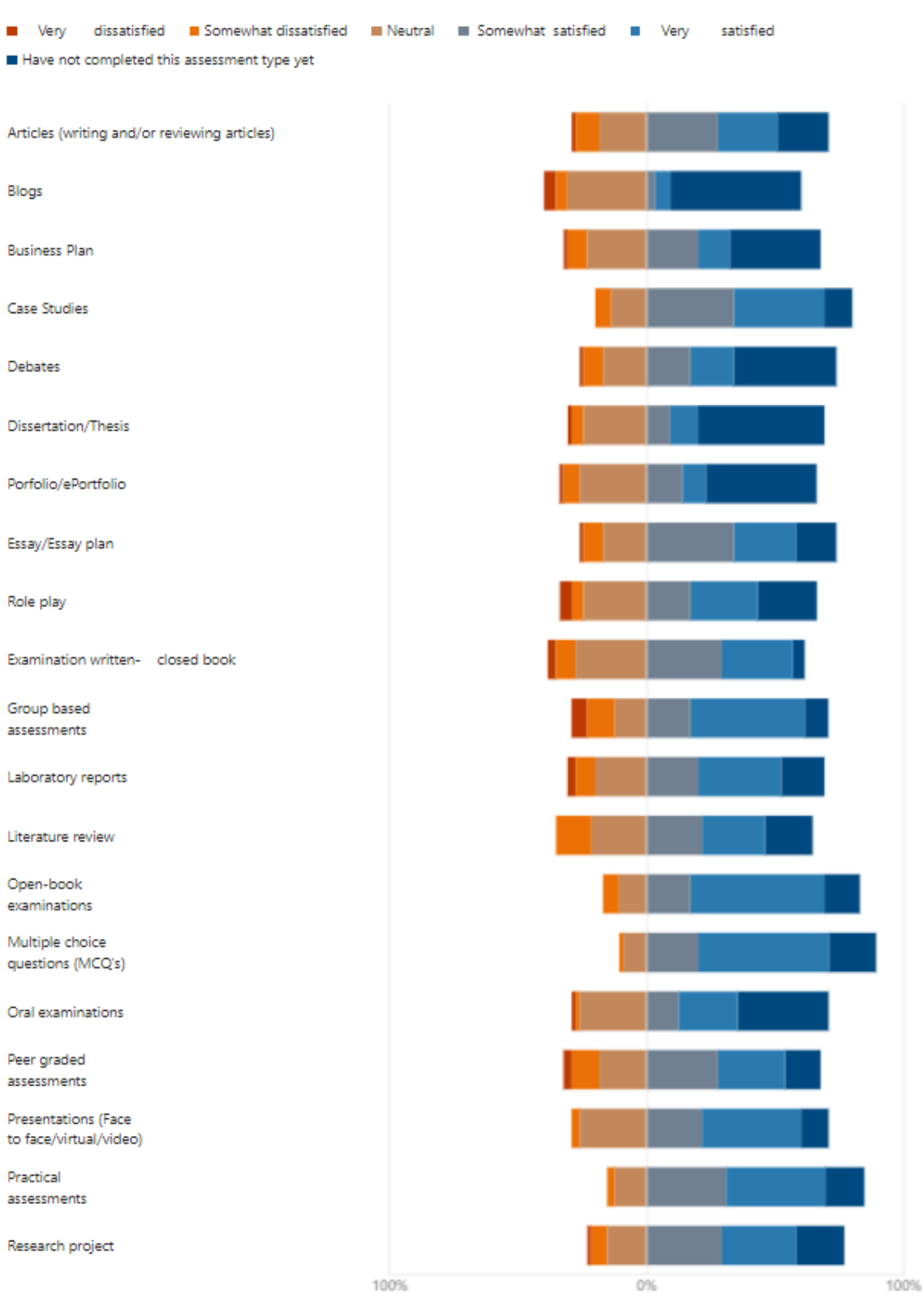
Riarthóir- Oifig Taighde agus Nuálaíochta GMIT

Atlantic Technological University
ATU Galway City, Old Dublin Road, Galway, H91 T8NW

Ollscoil Teicneolaíochta an Atlantaigh
OTA Cathair na Gaillimhe, Seanbhóthar Bhaile Átha Cliath, Gaillimh, H91 T8NW

Appendix I

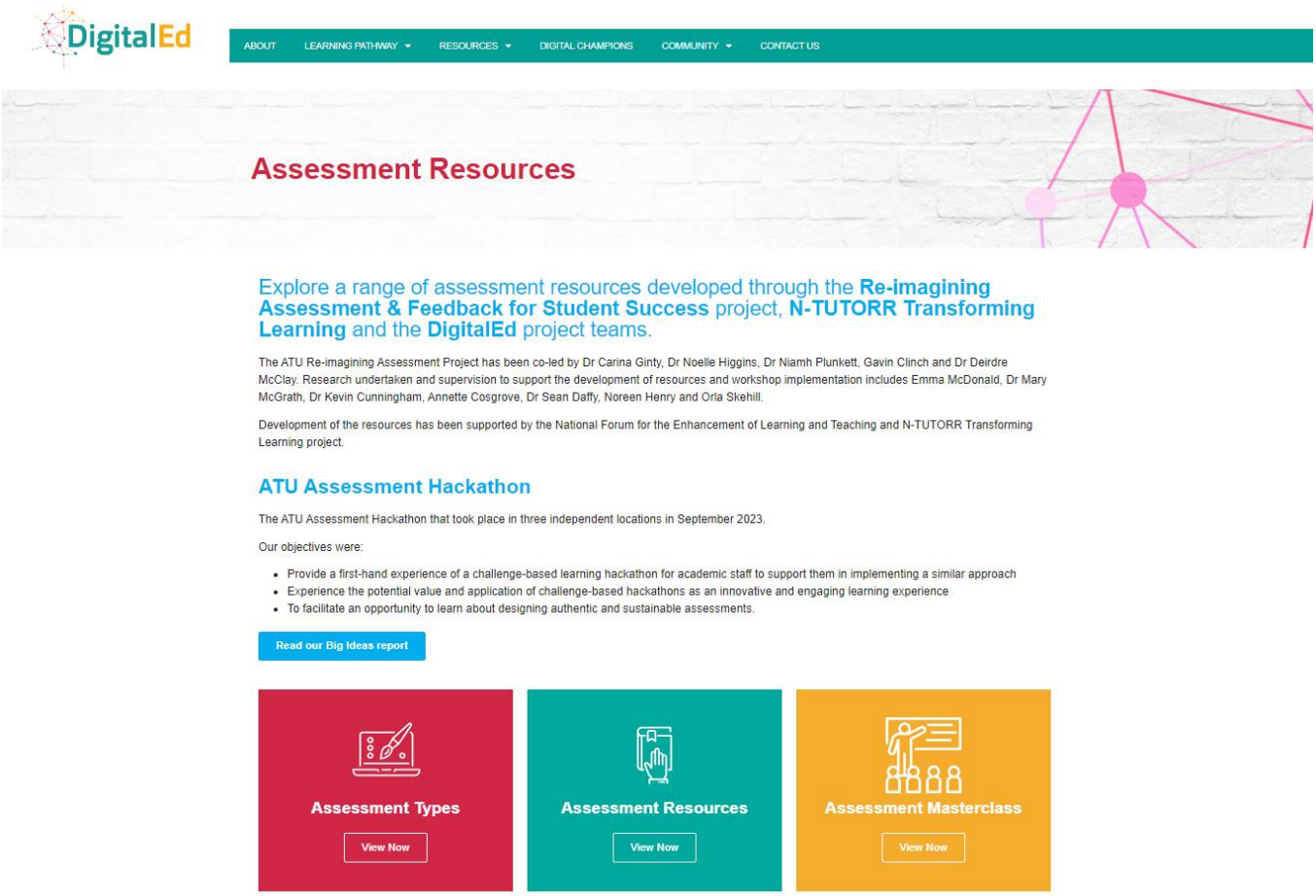
Chart for Student Satisfaction with Assessment Methods



Appendix J

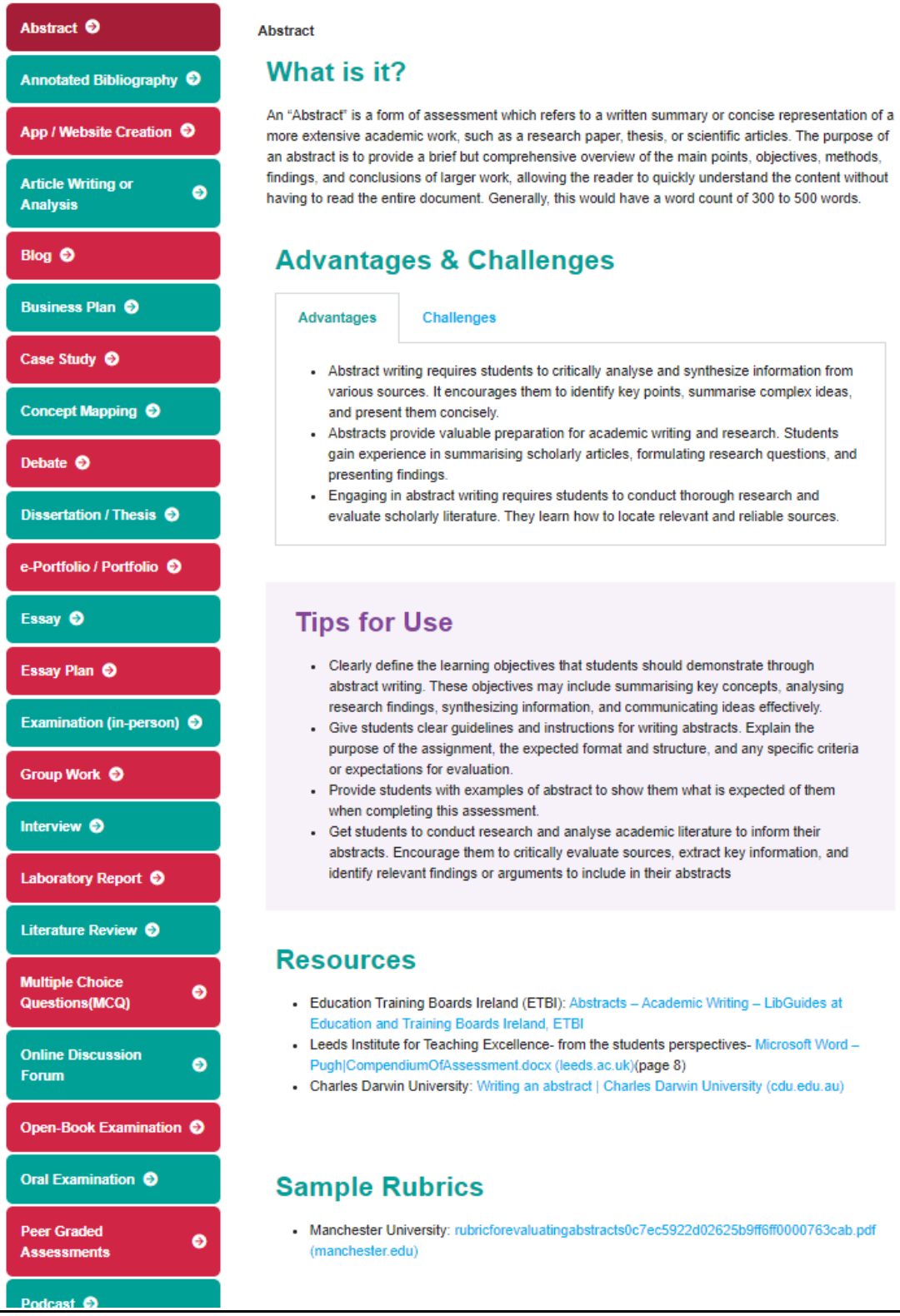
Assessment Resource Directory

Assessment Resource Directory Homepage

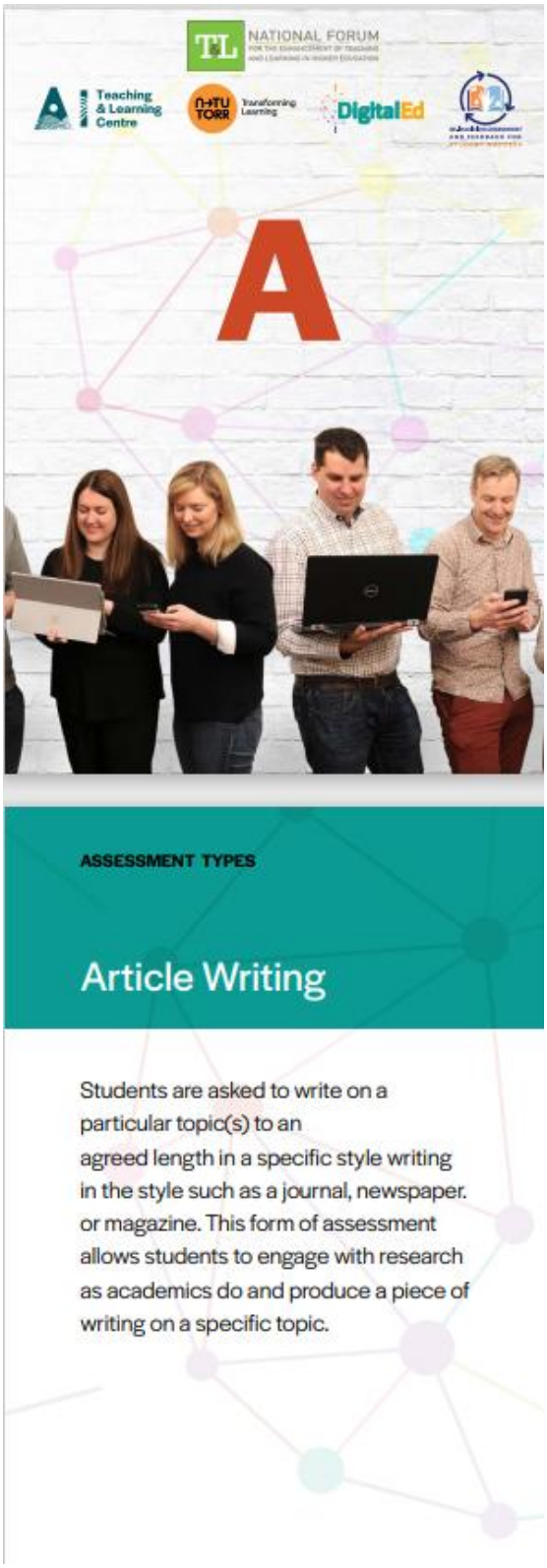


Link: *https://www.digitaled.ie/assessment/*

Assessment Types A-Z



A-Z Assessment Types Cards



Link: *https://www.digitaled.ie/wp-content/uploads/2024/05/PDF-A-Z-cards-full.pdf*