

https://dspace.org/

Exploring students experiences of receiving e-formative feedback during emergency remote learning: A case study of first-year students at a teacher education university in South Africa

Simelane, Raudina Madina

2024
University of the Witwatersrand, Johannesburg
https://hdl.handle.net/10539/45021
Simelane, Raudina Madina . (2024). Exploring students experiences of receiving e-formative feedback during emergency remote learning: A case study of first-year students at a teacher education university in South Africa [PhD thesis, University of the Witwatersrand, Johannesburg]. WIReDSpace.

Downloaded from a DSpace repository. https://dspace.org/

EXPLORING STUDENTS' EXPERIENCES OF RECEIVING E-FORMATIVE FEEDBACK DURING EMERGENCY REMOTE LEARNING: A CASE STUDY OF FIRST-YEAR STUDENTS AT A TEACHER EDUCATION UNIVERSITY IN SOUTH AFRICA

By

Raudina Madina Simelane

Thesis presented in fulfilment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

At

University of Witwatersrand

School of Education

Supervisor: Dr. Preya Pillay

July 2024

DECLARATION

I, Raudina Madina Simelane, (801621) declare that:

- The research reported in this thesis, except where otherwise indicated, is my original work.
- This thesis has not been submitted for any degree or examination at any other university.
- This thesis does not contain other person's data, graphs, or other information, unless specifically acknowledged as being sourced from other persons.
- This thesis does not contain other person's writing, unless specifically acknowledged as being sourced from other researchers. Where other written sources have been quoted, then:

a) Their words have been re-written, but the general information attributed to them has been referenced.

b) Where their exact words have been used, the writing has been placed inside quotation marks, and referenced.

- This thesis does not contain text, graphics or tables copied and pasted from the internet, unless specifically acknowledged, and the source being detailed in the thesis and the references sections.

Student's signature:  Date: 05 July 2024

SUPERVISOR'S DECLARATION

As the candidate's supervisor, I agree to the submission of this thesis.

Supervisor: Dr. Preya Pillay Signature:  Date: 05 July 2024

DEDICATION

This thesis is dedicated to my beloved mother, **Mavis Balele**, who has meant and continues to mean so much to me. Although she is no longer in this world, her memories continue to regulate my life. Her love for me knew no bounds. She taught me the value of hard work and raised me to believe that I could do anything. Ma, your words of encouragement and inspiration have never left my thoughts even long after you were gone. I hope you are happy in the presence of God. Thank you for raising a strong woman. I will never forget you. I love you so much!

ACKNOWLEDGEMENTS

Completing this thesis has been personally challenging yet rewarding; the knowledge and experiences gathered during this study are invaluable to me. However, it would not have been possible without the support and guidance of several people:

Firstly, I would like to thank God, my beloved Father for all the love, mercy and blessings that He has given and shown me during the time of working on this thesis. Thank You for the wisdom and knowledge You have given me throughout my study and my life.

Many thanks to my supervisor, Dr. Preya Pillay, for her assistance in helping me complete this thesis. I honestly would not have pulled this through if it were not for your guidance, supervision, support and encouragement. Your knowledge and contributions towards the completion of this thesis are highly appreciated.

I am profoundly grateful to my husband, Mduduzi Simelane, for his constant love, support, and patience during the many long nights and weekends I dedicated to this undertaking. His encouragement kept me going. I am also incredibly grateful for all the extra childcare he provided during crunch times, giving me the ability to focus. Your sacrifices did not go unnoticed.

Many thanks to my sweet baby girl, Iminathi Simelane, for her smiles and snuggles that provided me moments of joy during the challenges of writing this thesis. Although you are too young to understand, I appreciate your giggles and babbles that made me laugh and reminded me to take small breaks.

I would like to sincerely thank my siblings, Ishmael and Emely Balele, for their prayers, love and support. You guys have been my source of strength throughout my life.

I am also grateful to my extended family, friends and colleagues for their words of encouragement, prayers and support. Thank you.

ACRONYMS AND ABBREVIATIONS

BAT	Becoming a Teacher
BEd	Bachelor of Education
COGTA	Cooperative Governance and Traditional Affairs
COVID-19	Coronavirus Disease 2019
DHET	Department of Higher Education and Training
EAL	English Additional Language
EFL	English as a Foreign Language
ERE	Emergency Remote Education
ERT	Emergency Remote Teaching
ERL	Emergency Remote Learning
ERT&L	Emergency Remote Teaching and Learning
FDT	Feedback Design Theory
FIT	Feedback Intervention Theory
HE	Higher Education
ICT	Information and Communication Technology
LMS	Learning Management System
SAQA	South African Qualifications Authority
TA	Thematic Analysis
UNESCO	United Nations Educational, Scientific and Cultural Organisation
WHO	World Health Organisation
ZPD	Zone of Proximal Development

DEFINITION OF CONCEPTS

Accessibility: In the context of feedback, accessibility refers to the extent to which feedback is available and obtainable by the intended recipients. It considers factors such as the ease of locating and retrieving the feedback, the format in which it is provided (e.g., written, audio, video), and the degree to which it is understandable and comprehensible to the recipients, taking into account potential barriers such as language, disability, or technological limitations.

Assessment for learning: Assessment for learning, also known as formative assessment, is a process that involves gathering information about students' learning and using that information to inform and adjust teaching practices and learning strategies. It is ongoing and embedded within the learning process, providing continuous feedback to both students and teachers. The primary purpose of assessment for learning is to identify strengths, weaknesses, and areas for improvement, and to use that information to enhance learning and achievement.

Becoming a Teacher (BAT): A core module/course commonly found in teacher education programs or teaching degrees. It is designed to introduce and prepare students for the teaching profession, equipping them with foundational knowledge, skills, and dispositions essential for effective teaching practices.

Blended learning: An educational approach that combines traditional face-to-face instruction with online or digital learning experiences, leveraging the advantages of both environments.

Canvas Learning Management System (LMS): A cloud-based learning management system used by educational institutions to deliver online courses, manage course materials, facilitate communication, and track student progress.

Clarity: Clarity of feedback refers to the degree to which the feedback is expressed in a clear, concise, and unambiguous manner. Clear feedback is easy to understand and interpret, leaving little room for confusion or misinterpretation. It uses straightforward language, provides specific examples or explanations, and avoids jargon or vague statements that may be open to multiple interpretations.

E-formative feedback: e-formative feedback refers to formative feedback that is provided electronically or digitally, typically through online systems or learning management systems (LMS). It is feedback given to students on their work or assessments with the aim of helping them improve their learning and performance. The "e" in e-formative feedback stands for "electronic" or "digital".

E-learning: The delivery of education and instruction through electronic means, typically involving the use of digital technologies, online platforms, and multimedia resources.

Emergency remote teaching and learning (ERT&L): A temporary shift in instructional delivery to an alternate mode of instruction due to crisis circumstances, such as the COVID-19 pandemic, which necessitated the rapid transition to remote teaching and learning environments.

Emotionality: In the context of feedback, emotionality refers to the emotional tone or affective dimension present in the feedback comments. Feedback can range from being highly emotional (positive or negative) to being emotionally neutral or objective. Emotionally charged feedback may evoke stronger emotional responses in the recipient, either motivating or demotivating them, depending on the nature of the emotions conveyed.

Engagement: Engagement with feedback refers to the extent to which students actively interact with, understand, and utilise the feedback they receive. It involves not only accessing and reading the feedback but also reflecting on it, seeking clarification if needed, and using it to inform their learning strategies and future work. Engagement with feedback is essential for effective learning and improvement, as it allows students to internalise and apply the feedback to enhance their understanding and skills.

Formative assessment: The ongoing evaluation of student learning during the instructional process, providing feedback and opportunities for improvement before summative assessments or final evaluations.

Instructor: An individual responsible for teaching and facilitating learning in an educational setting, such as a teacher, professor, or lecturer.

Self-regulated learning: The process by which learners actively monitor, regulate, and control their own learning process, including setting goals, employing effective strategies, and evaluating their progress.

Specificity: In the context of feedback, specificity refers to the level of detail and clarity provided in the feedback comments. Specific feedback is precise, clear, and focused, providing the student with specific information about their strengths, weaknesses, and areas for improvement. It avoids generalised or vague comments and instead offers concrete and actionable suggestions tailored to the individual's work or performance.

Student teachers: Also known as pre-service teachers or teacher candidates, are individuals who are enrolled in a teacher education program at a university or college, preparing to become certified teachers.

Valence: The emotional tone or attitude conveyed through feedback, which can be positive, negative, or neutral, and can influence the learner's motivation and receptiveness.

TABLE OF CONTENTS

DECLARATION I
DEDICATION II
ACKNOWLEDGEMENTS III
ACRONYMS AND ABBREVIATIONS IV
DEFINITION OF CONCEPTS V
TABLE OF CONTENTS VIII
LIST OF APPENDICES XIII
LIST OF TABLES XIII
LIST OF FIGURES XIII
CHAPTER 1 ORIENTATION TO THE STUDY 1
1.1 INTRODUCTION 1
1.2 BACKGROUND OF THE STUDY 1
1.3 PROBLEM STATEMENT 9
1.4 RATIONALE FOR THE STUDY 10
1.5 RESEARCH QUESTIONS 12
1.6 RESEARCH OBJECTIVES 13
1.7 THE CONTEXT OF THE STUDY 14
1.7.1 Scientific and geographical demarcation 14
1.8 SIGNIFICANCE OF THE STUDY 15
1.9 THEORETICAL FRAMEWORKS 17
1.10 OUTLINE OF RESEARCH METHODOLOGY AND DESIGN 18
1.11 BRIEF OUTLINE OF THE CHAPTERS 20
1.12 CONCLUSION 23
CHAPTER 2 LITERATURE REVIEW 25
2.1 INTRODUCTION 25
2.2 ORIGIN AND PURPOSE OF EMERGENCY REMOTE LEARNING 26
2.3 FORMATIVE ASSESSMENT IN HIGHER EDUCATION 27
2.4 FORMATIVE ASSESSMENT DURING EMERGENCY REMOTE LEARNING 28
2.5 THEORISING E-FORMATIVE ASSESSMENT 29
2.5.1 Meaning of e-formative assessment 29
2.5.2 Purpose of e-formative assessment 31
2.5.3 Impact of Emergency Remote Learning on e-formative assessment and learning outcomes 32
2.6 THEORISING E-FORMATIVE FEEDBACK 36
2.6.1 Meaning and purpose of e-formative feedback 36
2.6.2 Modes of e-formative feedback 38

2.6.2.1 Audio formative feedback 39
2.6.2.2 Video formative feedback 39
2.6.2.3 Text-based formative feedback 40
2.7 FACTORS THAT INFLUENCE THE EFFECTIVENESS OF E-FORMATIVE FEEDBACK 42
2.7.1 The comprehensibility of e-formative feedback 42
2.7.2 Timing of e-formative feedback 45
2.7.3 Amount of e-formative feedback 49
2.8 A REVIEW OF STUDENTS' EXPERIENCES OF RECEIVING E-FORMATIVE FEEDBACK DURING EMERGENCY REMOTE LEARNING 52
2.8.1 Accessibility of e-formative feedback 53
2.8.2 Specificity of e-formative feedback 57
2.8.3 Emotionality of e-formative feedback 60
2.8.4 Valence of e-formative feedback 63
2.9 E-FORMATIVE FEEDBACK CHALLENGES ON LEARNING OUTCOMES 66
2.10 IMPLICATIONS OF THE LITERATURE 68
2.11 CONCLUSION 69
CHAPTER 3 THEORETICAL FRAMEWORK 70
3.1 INTRODUCTION 70
3.2 SOCIAL CONSTRUCTIVISM: LAYING THE FOUNDATIONAL LENS 71
3.2.1 Background of Social Constructivism theory 71
3.2.2 Why the Social Constructivism theory? 72
3.3 FEEDBACK INTERVENTION THEORY (FIT): UNDERSTANDING THE "HOW" OF STUDENT RESPONSES 76
3.3.1 Background of Feedback Intervention Theory (FIT): 76
3.3.2 Why the Feedback Intervention Theory (FIT) 77
3.4 FEEDBACK DESIGN THEORY (FDT): OPTIMISING THE "WHAT" OF E-FORMATIVE FEEDBACK 79
3.4.1 Background of Feedback Design Theory (FDT) 79
3.4.2 Why the Feedback Design Theory (FDT) 80
3.5 APPLICATION OF THE THREE THEORETICAL FRAMEWORKS IN THIS STUDY 83
3.5.1 Social Constructivism 83
3.5.2 Feedback Intervention Theory (FIT) 84
3.5.3 Feedback Design Theory (FDT): 85
3.6 CONCLUSION 87
CHAPTER 4 RESEARCH METHODOLOGY AND DESIGN 88
4.1 INTRODUCTION 88
4.2 RESEARCH METHODOLOGY 88
4.2.1 Qualitative research 89

4.3 RESEARCH DESIGN 90
4.3.1 Case study 90
4.3.2 Interpretive paradigm 92
4.4 RESEARCH CONTEXT 94
4.5 SELECTION OF PARTICIPANTS 96
4.5.1 Description of selected participants 100
4.5.2 Rationale for Selecting First-Year Becoming a Teacher (BAT) Students as Participants 101
4.6 DATA COLLECTION METHODS 103
4.6.1 Interviews 103
4.6.1.1 Semi-structured interviews 104
4.6.1.2 Focus group interviews/discussions 106
4.7 METHOD OF DATA ANALYSIS 110
4.7.1 Step 1: Becoming familiar with the data 111
4.7.2 Step 2: Code generation 112
4.7.3 Step 3: Themes generation 113
4.7.4 Step 4: Reviewing themes 114
4.7.5 Step 5: Defining and naming themes 115
4.7.6 Step 6: Producing the report 116
4.8 TRUSTWORTHINESS 120
4.8.1 Credibility 122
4.8.2 Transferability 123
4.8.3 Dependability 124
4.8.4 Confirmability 125
4.8.5 Triangulation 126
4.9 ETHICAL CONSIDERATIONS 127
4.10 METHODOLOGICAL LIMITATIONS 130
4.10.1 Semi-structured interviews 130
4.10.2 . Focus group interviews/discussions 131
4.10.3 Limitations of Thematic Analysis 132
4.10.4 Sample size 133
4.10.5 Language 134
4.11 CONCLUSION 135
CHAPTER 5 PRESENTATION OF FINDINGS 137
5.1 INTRODUCTION 137
5.2 THEMATIC ANALYSIS 138
5.3 STUDENTS' EXPERIENCES OF RECEIVING E-FORMATIVE FEEDBACK DURING ERL 139
5.3.1 Accessibility of e-formative feedback 139

5.3.2 Timing of e-formative feedback 146
5.3.3 Specificity of e-formative feedback 151
5.3.4 Valence of e-formative feedback 156
5.3.5 Amount of e-formative feedback 159
5.4 STUDENTS' RESPONSES TO E-FORMATIVE FEEDBACK DURING ERL 164
5.4.1 Emotionality of e-formative feedback 164
5.4.2 Clarity of e-formative feedback 167
5.4.3 Focus on marks achieved 168
5.4.4 Self-regulated learning and motivation 169
5.5 CONCLUSION 171
CHAPTER 6 DISCUSSION OF FINDINGS 173
6.1 INTRODUCTION 173
6.2 STUDENTS' EXPERIENCES OF RECEIVING E-FORMATIVE FEEDBACK DURING ERL 173
6.2.1 Accessibility of e-formative feedback 173
6.2.2 Timing of e-formative feedback 177
6.2.3 Specificity of e-formative feedback 180
6.2.4 Valence of e-formative feedback 182
6.2.5 Amount of e-formative feedback 184
6.3 STUDENTS' RESPONSES TO E-FORMATIVE FEEDBACK DURING ERL 186
6.3.1 Emotionality of e-formative feedback 186
6.3.2 Clarity of e-formative feedback 188
6.3.3 Focus on marks achieved 190
6.3.4 Self-regulated learning and motivation 191
6.4 CONCLUSION 193
CHAPTER 7 SUMMARY AND RECOMMENDATIONS 194
7.1 INTRODUCTION 194
7.2 OVERVIEW OF THE STUDY 195
7.3 DELINEATING THE FINDINGS 198
7.3.1 Research question one: What were first year students' experiences of receiving e-formative feedback on e-formative assessment during ERL? 199
7.4 RESEARCH QUESTION THREE: WHY DID FIRST YEAR STUDENTS RESPOND TO E-FORMATIVE FEEDBACK THE WAY THEY DID DURING ERL? 205
7.5 TOWARDS A FRAMEWORK FOR RE-THINKING E-FEEDBACK AND STUDENT LEARNING DURING ERL AND BEYOND IN THE CONTEXT OF A DEVELOPING COUNTRY 212
7.6 IMPLICATIONS OF THIS PHD RESEARCH 215
7.7 CONTRIBUTIONS OF THIS RESEARCH 219
7.8 RELEVENCE OF THE STUDY POST-PANDEMIC 220

7.9 LIMITATIONS OF THIS PHD STUDENT RESEARCH 222
7.10 DIRECTIONS FOR FUTURE RESEARCH 223
7.11 MY THREE-YEAR PHD RESEARCH JOURNEY: REFLECTIONS ON LEARNING 224
7.12 CONCLUDING REMARKS 230
REFERENCE LIST 232
APPENDICES 262

LIST OF APPENDICES

Appendix A Semi-structured interview schedule 262
Appendix B Focus group discussion schedule 275
Appendix C: Plagiarism Report 285
Appendix D Ethical clearance certificate 286
Appendix E Editor's certificate 287

LIST OF TABLES

Table 4.1 Participants information 100
Table 4.2: Procedures used to collect data 108

LIST OF FIGURES

Figure 3.1 Theoretical Frameworks 86
Figure 4.1 Method of data analysis (Thematic Analysis) 119
Figure 4.2 Open coding flowchart (Corbin & Strauss, 2015) 121
Figure 7.1 Framework for re-thinking participants' e-feedback experiences 212

CHAPTER 1 ORIENTATION TO THE STUDY

"*Feedback has no effect in a vacuum; to be powerful in its effect, there must be a learning context to which feedback is addressed*" (Hattie & Timperley, 2007, p. 2)

1.1 INTRODUCTION

The major purpose of chapter one is to provide a clear and logical structure for the study. In this chapter, I present the background and contextual information relevant to this study. I begin with a discussion on the COVID-19 pandemic and its profound impact on assessment and feedback practices within higher education institutions. This is followed by the problem statement, an outline of the rationale for the study and a brief discussion of its significance. The research questions and objectives are then presented, along with the context in which the study is situated. Furthermore, I introduce the theoretical frameworks that underpin this study. These theories provide a lens for exploring students' experiences of e-formative feedback and informing the design of effective feedback interventions. In this chapter, I also outline the research methodology and design adopted for the study, providing a roadmap for the research approach. Finally, a comprehensive overview of each subsequent chapter is presented, offering a preview of the study's structure and content.

1.2 BACKGROUND OF THE STUDY

In December 2019, the first cases of COVID-19 emerged in Wuhan, China (Huang, Johnson & Sampson, 2020). Initially considered containable within Asia, COVID-19 proved highly transmissible, spreading globally (Singhal, 2020). The World Health Organization (WHO), regional health bodies, and national ministries monitored and tracked the outbreak (Cucinotta & Vanelli, 2020). On the 11th of March 2020, with COVID-19 reaching over 110 countries across multiple continents and infecting over 120,000 people worldwide, the WHO officially declared a pandemic (WHO, 2020). This confirmation meant COVID-19 was now a serious international public health emergency requiring coordinated containment efforts to address the escalating cases and rising death toll (Sohrabi, Alsafi, O'Neill, Khan, Kerwan, Al-Jabir, Iosifidis & Agha, 2020).

Despite serious global outbreaks in early 2020, South Africa's first COVID-19 case was only detected in March 2020 (National Institute for Communicable Diseases, 2020). This timing allowed South Africa to evaluate other countries' pandemic responses to inform a localised strategy (Abdool Karim, 2020). On the 15th of March 2020, President Cyril Ramaphosa declared a national state of disaster per the Disaster Management Act, enacting restrictions to contain the outbreak (The Presidency, 2020; Department of Cooperative Governance and Traditional Affairs, 2020). The Department of Cooperative Governance and Traditional Affairs (COGTA) developed regulations limiting rights and movement (Makgamatha, Soldaat, Bozalek & Gachagoet, 2020). Citizens were requested to socially distance and symptomatic individuals to isolate and test (Makhubele, 2020). A week later, aligning with global responses, President Ramaphosa imposed a 5-tier lockdown, entering "Level 5" restrictions from March 26th - April 30th (Nyathi, 2020; Wiegandt & Iser, 2020). This prohibited freedom of movement and assembly except for essential trips, effectively halting learning at educational institutions (Moultrie & de Haan, 2020).

The South African government swiftly imposed a national lockdown, closing all universities in March 2020 with just one week of notice (Department of Cooperative Governance and Traditional Affairs, 2020). By April 2020, approximately 1.5 billion students worldwide were displaced as a result of schools and higher education institutions temporarily closing due to COVID-19 (Castonguay, 2020). In an attempt to salvage the academic year, South African educational institutions shifted from face-to-face teaching and learning to Emergency Remote Teaching and Learning (ERT&L), with the Department of Higher Education mandating all higher education institutions to offer ERT&L from 1 June 2020 (Staff Writer, 2020b). Hodges, Moore, Lockee, Trust & Bond (2020) described Emergency Remote Teaching and Learning as a temporary shift to alternative delivery modes that would return to face-to-face instructional delivery once the emergency had passed: it is meant only to be an emergency response to an emergency situation.

ERT&L should not be confused with online teaching and learning, as there are distinct differences between these two approaches. Online teaching and learning is the

intentional development of online study material where each step of the design process is analysed and considered to ensure that effective teaching and learning takes place (Hodges et al., 2020). ERT&L, on the other hand, is the swift adaptation of study material designed for face-to-face instruction, into an online delivery mode under emergency circumstances (Hodges et al., 2020). These two modes differ structurally, as online teaching and learning uses regular interactive online tools and activities such as online quizzes, polls and self-assessment techniques. In contrast, when looking at ERT&L, minor modifications are made to face-to-face material before it is provided in an online format.

Furthermore, these two modes also differ conceptually since instructors in Emergency Remote Teaching (ERT) lose the ability to provide emphasis and context to the face-to-face material now used in ERT&L. Instructors in ERT are unable to gauge real-time when students require more input and clarification. With ERT&L, the educational ecosystem is not recreated, but rather adapted to ensure students have access to resources (Hodges et al., 2020). When preparing an online course, instructors would be cognisant of the fact that these elements are lacking and would therefore carefully consider how to atone for their absence (Iglesias-Pradas, Hernández-García, Chaparro-Peláez, & Prieto, 2021). In an online setting, students choose this mode of studying, while in an ERT&L setting, students are forced to make use of this mode of studying. Therefore, the rapid transition of using face-to-face material for ERT&L purposes usually results in a decline in the quality of the teaching provided and learning effected.

Influenced by ERT&L, The Department of Higher Education and Training (DHET) provided guiding principles for remote teaching and assessment, while South African Qualifications Authority (SAQA) encouraged shifting assessments online (DHET, 2020; SAQA, 2020). However, institutions faced massive equity, training, and implementation challenges executing this rapid transition (Mhlanga & Moloi, 2020). Student access disparities emerged as 35% lacked appropriate devices and 39% faced connectivity issues, disadvantaging rural and lower-income groups (Booyse & du Plessis, 2020). Faculty preparation was inadequate, with minimal training on remote pedagogies despite unfamiliarity (Rens, 2021). Bandwidth limitations hindered video-conferencing, while poor

course design frustrated students (Yan, 2020). Assessments required modifications against cheating, which proved difficult for disciplines like laboratories (Mbatha & Makhanya, 2021). Ultimately, the sudden transition, though enabling continuity, amplified inequities and compromised quality without adequate infrastructure, resources, support, and strategic planning tailored to the South African context (Jdaitawi, 2021). Given these sudden equity, training, and implementation challenges, assessment became a crucial area requiring new approaches and support during the transition.

Universities in South Africa instituted an academic continuity plan allowing just ten days for faculty to pivot fully online. This shift saw instructors having to rapidly rework materials for access in the online learning environment, facilitated through the Learning Management Systems (LMS's) already in place. As such, all instructors had to adopt new approaches in teaching, learning and assessment of their particular subjects. This change brought with it various implications for transforming assessment practices as it required instructors to follow several new approaches to planning, teaching and assessment (Gouw, 2008). Prior to the COVID-19 pandemic, an institution's Learning Management system (LMS) was generally used for administrative purposes (such as communication of course learning outcomes and assessment plans/weightings) despite that it also offered an array of learning and assessment tools. Hence, in the early stages of ERT&L, several key Learning and Teaching units at faculty and institutional level provided support and guidelines geared to familiarising staff with the LMS tools in general as well as various resources that could be used for online assessments. Given that teaching and learning are inseparable from assessment, it was crucial for instructors and students to engage in online assessment to monitor student learning to improve educational quality. This includes how instructors gather information to make high-stake decisions on students - assessment *of* learning, and how they gather information to inform instruction - assessment *for* learning (Black & Wiliam, 2018). Inevitably, these engagements necessitated a significant shift in instructors' and students' understanding of assessment that required them to relinquish previously held conceptions about the role of assessment in teaching and learning (Dixon & Williams, 2001).

Online assessments during ERT&L thus allowed some instructors to rethink assessments beyond recall or “Googleable” answers type assessment because of the concerns of students’ dishonesty, fear of collusion amongst students, plagiarism, and contract cheating. Instructors were also increasingly interested in providing assessment opportunities for student partnership and other forms of assessment that could better engage students as active participants in their learning (Bloxham & Boyd, 2007). In addition, some instructors also embraced the opportunity to explore alternative assessments using take-home, reflective and project-based assessments as recommended by Biggs (2012), as well as formative assessment approaches described by Carless (2002). This meant assessing the ability of students to apply, organise and interrelate knowledge, skills, and attitudes and cross-transferable skills increasingly needed in the modern workplace.

In using LMS’s at institutions, the principles of fit for purpose assessment were also brought sharply into focus as instructors grappled with the need to adapt (reimagine) assessment strategies to address the assessment intentions within the contextual constraints and affordances of ERT&L. According to Brown (2019, p.54), “fitness for purpose implies a deliberative and measured approach to decision making around assessment design, so that choices of methodologies and approaches, orientation, agency and timing are all made in alignment with the purposes of the task with that particular cohort of students, at that level, in that context, that subject discipline and at that stage in their academic careers”. This meant that during ERT, instructors had to think deeply about what counts in their methods of assessment in their teaching programmes. Instructors needed to re-consider the purpose informing their task design and assessment formats, for example, whether the purpose of a multiple-choice test is for students to demonstrate their basic understanding or more advanced application of threshold concepts. These are the kinds of deeper questions and reflections that would enable emergent practices to become embedded in the long term.

An important assessment principle noted by Bloxham and Boyd (2007) was that assessment should encourage metacognition and promote thinking about the learning process and not just the learning outcomes. Race (2020) confirms this notion by arguing

that an effective student is one who makes informed and strategic decisions about “where to invest time and energy”, and that this needs to be acknowledged in assessment tasks and criteria. In the ERT learning environment that was often defined by limited instructor presence, such mechanisms for identifying learning target and self-evaluating progress became critical for many students. This required assessment practices to create opportunities for students to learn how to assess and to practice assessing and providing feedback to themselves and their peers. There was also the hope that the provision of small, connected tasks would enable students to monitor their learning progress, as recommended by Carless (2015), and in doing so, move towards a view of quality as transformation of the student. However, the assumption underscoring such transformational assessment strategies is that students know what and how to interrogate and internalise feedback to measure their progress towards achieving their learning goals, which may not always be the case.

ERT&L were thus characterised by instructors’ attempts to familiarise themselves with, and use, various features and tools of the LMS, the benefit being that these tools offered simpler ways of delivery of tests or quizzes, assignments, and other forms of assessment, while minimising the risk of increasing staff workload. With the increasing demand for providing timely and appropriate feedback amidst concerns of staff workload, educational institutions explored the use of various digital assessment and feedback applications. What became clear was that adoption of these applications required instructors to apply sound pedagogical strategies to make them effective learning tools. Designing rubrics and assessment criteria as a basis for marking and providing feedback within these applications also required significant manual input in terms of design and thought from instructors. Equally, students had to be provided with opportunities to become familiar with these applications before they were used in higher stakes assessments. A clear shift in ‘how’ to assess was evident in the postponement of high stakes end-of-topic summative assessment (in the hope that circumstances would soon normalise), and in the provision of numerous small, continuous assessment tasks that would “capture sufficient study time and effort” (Gibbs & Simpson 2005, p. 12) and enhance student engagement. This shift appeared to align with Carless’ (2007) formative assessment conception of designing assessment tasks as learning tasks, the adoption of multiple, low stakes assessments

with feedback offering the potential for enhanced student motivation and confidence building. In cases where the assessment designs required students to show conceptual understanding or change, by providing justifications for their responses in quizzes or tests or produce assignment/essays with extensive writing, these presented opportunities for individualised or personalised feedback and dialogic forms of the learning and teaching processes (Carless, Salter, Yang & Lam, 2011).

LMS-based options of providing feedback could be seen as promoting social online presence, potentially tapping into dialogic forms of feedback and bringing students more directly into the assessment and feedback 'conversation'. In instances of collaborative assessments through the LMS Chats and Forum tools, both the process and product outcomes were likely to generate dialogic feedback between students and instructors, and among students, with many benefits to such interactions. For example, as students reflected on the feedback received, they would develop self-reflective, self-managing, and evaluative skills especially when assessment criteria and intended learning outcomes were transparent (Nicol & MacFarlane-Dick, 2006; Nicol, 2010). This raised the possibility of shifting the assessment and feedback into a more transformative process. Furthermore, such practices presented greater opportunities for students to shift from peripheral (or marginal) participation (Lave & Wenger 1991) to more integral participation in the assessment process and the learning community, thereby boosting students' confidence as their voices (and values) become heard and acknowledged.

However, giving students meaningful feedback on their learning is an area that has presented multiple challenges in the ERT&L spaces. Instructors realised the need to increase the complexity of their online questions in objective multiple-choice formats and performance tasks in disciplines. They wanted to move students beyond description levels of analysis to achieve high level cognitive, performance and personal outcomes and recognised that they require skills to design learning-oriented objective assessments. The advantage of automated assessment tools like tests and quizzes is that students receive their feedback instantly and can learn from them to correct their misconceptions. A caveat here, however, is that these types of questions and the general mode of feedback provided by automated assessment tools can sometimes rob students of the

personalised and dialogical feedback that builds criticality, interest and self-regulation. A potential consequence is that students may again lean towards a focus on the mark and the right answer, without reflecting on why their answers were wrong and learning from the feedback. Hence if online feedback during ERT&L was to play a strongly formative role in achieving student success (Winstone & Boud, 2019), even for low stakes rewards, structures needed to be in place to support the various actors in eliciting these changes online. Through cognitive, social-affective, and structural feedback dialogues, students can be positioned as equal partners in a reciprocal process, thus "moving away from teacher-dominated forms of communication and enabling students to solicit and engage in feedback interactions" (Winstone & Carless, 2019, p. 97).

Hence during ERT&L, a more process-oriented approach to feedback had come to the fore as it focused on making sense of feedback information and using it for enhancement purposes (Boud & Molloy, 2013; Carless & Boud, 2018). This view of feedback emphasised the student's role in generating, processing, and responding to feedback information. For this to be actualised, students required exposure to feedback literacy: the understandings, capacities and dispositions needed to make the most of feedback opportunities (Carless & Boud, 2018). In practical terms, the shift to students owning formative feedback had necessitated designing forms of student dialogue into feedback. Moreover, if one is to accept that the new normal in education in the future is one that will largely be online, then the quality of formative assessment feedback in teaching and learning will not only become necessary and more critical, but it will also be unavoidable. It is also important to remind ourselves that this is not the first time that a crisis forced a re-think of assessments in our context. The #Feesmustfall protests of 2015 and 2016 had also provided the grounds for these reflections and shifts in praxis, however, our experience is that most of the assessment feedback practices that emerged during those years were not sustained beyond the protests. It, therefore, remains to be seen if the unexpected gains and insights achieved during ERT&L will be sustained in the longer term. What is clear, however, is that as we move into blended or hybrid models post COVID-19, instructors will inevitably draw on the lessons learned during COVID-19 to meet the needs of students in the teaching and learning paradigm that will emerge. Doing so in a critical and reflexive manner may lead to more equitable learning experiences and

more sustainable outcomes for students. While e-formative feedback holds promise for assisting students in mastering remote learning, pinpointing growth areas, and building lifelong learning skills, significant questions remain regarding how students actually comprehend and utilise such feedback. Their real-world experiences receiving and applying e-feedback during ERL warrant deeper investigation.

The purpose of this study is to explore first year university students' experiences of receiving e-formative feedback during ERL. By examining students' experiences of receiving e-formative feedback in the unique ERL context, this study aims to understand how students perceive, utilise, and engage with formative feedback to support their learning when instruction is entirely remote. The findings will provide insights into e-formative assessment practices that can enhance student learning and success both during remote contingencies and in online or blended courses beyond the pandemic.

1.3 PROBLEM STATEMENT

The abrupt shift to ERL during the COVID-19 pandemic highlighted critical gaps in understanding students' perspectives and needs when receiving and utilising e-formative feedback to guide their self-directed learning. While prior research has focused extensively on the instructor and pedagogical considerations of formative assessment, there remains a dearth of insight into the lived experiences and realities of students on the receiving end of such feedback in South Africa (Winstone & Boud, 2020). By illuminating first-year students' experiences, responses, and explanatory factors, this research can reveal how e-feedback policies and practices might be refined to better serve diverse students facing remote learning barriers. Findings hold strong potential to enhance student success, self-regulatory skills, and lifelong learning during a time of unprecedented disruption (Evans, 2013; Winstone, Nash, Rowntree & Parker, 2017).

The transition from high school to university presents significant challenges for many students. Those who struggle to adapt to the new academic environment are often considered at risk of failure or dropping out (Levy & Murray, 2005; van der Meer, Jansen & Torenbeek, 2010). One major issue first-year higher education students face is disproportionate difficulties developing autonomous learning skills and requiring

enhanced scaffolding and support, which traditional in-person learning environments often provide but online contexts may lack (Gikandi, Morrow & Davis, 2011). Failure to receive such support in their learning may result in students falling behind, getting discouraged, and ultimately discontinuing their studies (Tinto, 1987). Exploring how first-year students, during ERL specifically, experience and respond to e-formative feedback could lead to discoveries that strengthen practical recommendations and theoretical models for improved design and delivery of impactful formative assessment suitable for online environments. Such formative assessment and feedback processes refined with equity in mind could significantly benefit first-year students struggling to stay motivated and on track for success in self-directed remote or blended contexts. Hence additional research is needed to better understand the intersection of formative assessment feedback, e-learning and first-year student learning experiences so that mismatches between feedback supplied and support required can be addressed.

Additionally, as blended and hybrid education options expand post-pandemic to accommodate emerging lifestyle needs, findings from this study may have lasting relevance for teaching and learning best practices (Hodges et al., 2020). Investigating first-year students' perspectives will provide a unique student-centered perspective regarding the realities of developing evaluative expertise and lifelong learning skills through formative feedback engagement during a challenging remote transition (Tai, Bellon-Harn, Arredondo, Yuen & Hahn, 2018; Boud & Molloy, 2013). By privileging student voices and lived experiences, this study aims to deeply enrich understanding of e-formative assessment from the student vantage point in order to enhance pedagogical support and guidance offered at this foundational stage (first-year) of higher education.

1.4 RATIONALE FOR THE STUDY

As a tutor working with undergraduate students, I witness firsthand the struggles many students face when transitioning to self-directed learning in higher education environments. This challenge has been exponentially greater amidst the abrupt switch to online learning during the pandemic. In my experience, first-year students often require the most intensive scaffolding to develop autonomous study skills, especially writing proficiency. However, providing effective personalised support online has been incredibly

difficult despite my best efforts. I chose to pursue this study because I am passionate about enhancing educational equity and inclusion in online spaces. My greatest frustrations as a tutor stem from feeling unable to adequately assist the students who need it most when they are learning remotely. This drove me to gain a deeper understanding of how vulnerable students experience formative feedback so I could discover ways to better reach, motivate, and empower diverse students in remote contexts.

As an embedded tutor within the courses, I occupy a unique position to explore the student perspective regarding formative assessment. My goal is to use my insights to uncover practical improvements I and other frontline instructors can make to build self-efficacy and evaluative judgement in first-year students as they work to master critical self-directed learning skills during a challenging transitional time. I believe discovering ways we can make e-formative feedback more meaningful, motivational, and equitable for diverse students will have lasting rewards for learning and retention. My aim is to emerge from this study with actionable strategies to provide truly responsive and uplifting feedback that propels all students forward even amidst adversity.

At a professional level, this study addresses a critical need to improve understanding of formative assessment from a student's perspective in order to enhance pedagogical practices and policies. As a teacher, I recognise the urgent need to refine formative assessment approaches to better scaffold vulnerable populations, promote equitable engagement, and drive self-efficacy in online environments. This study offers opportunities to strengthen theoretical foundations and practical guidelines regarding impactful e-formative design tailored to diverse students' needs. Insights gained can inform learning support refinements and teacher professional development. On a broader scope, findings may guide institutional improvements to curriculum, instruction, and formative assessment programs during large-scale disruptions. As remote and hybrid models expand post-pandemic, this exploration can enrich teaching practices and policies by putting students' voices at the center. Understanding how students experience feedback processes is key to creating truly responsive, motivational learning cycles. This study therefore aims to generate actionable knowledge that empowers instructors to

foster inclusion, enhance self-directed skills, and uphold academic standards for all students transitioning to higher education and navigating new remote learning contexts. Deepening understanding of the student formative assessment experience constitutes an essential step in crafting effective, equitable educational practices. This work aligns with my professional commitment to transformative pedagogy that elevates and amplifies marginalised student voices.

As an experienced teacher and now a doctoral candidate, I have become increasingly compelled to pursue research that gives voice to student perspectives on learning. My review of the literature revealed major theoretical gaps in understanding students' lived experiences with formative assessment processes, especially during challenging educational transitions. While existing models aptly describe the pedagogical and cognitive dynamics of formative evaluation, very few conceptual frameworks capture the student vantage point. My research aims to directly address this void by exploring how undergraduate students interpret, respond to, and utilise e-formative feedback for self-directed learning during abrupt shifts to online education. This study is grounded theoretically in constructivist learning principles, which argue that students construct knowledge and meaning from building on prior experience and social interactions. By analysing how students make sense of and engage with formative feedback across digital spaces, my work can substantially expand constructivist theoretical scaffolds by incorporating the indispensable, yet overlooked, student lens.

1.5 RESEARCH QUESTIONS

To explore first-year student teachers' experiences of receiving e-formative feedback during ERL, this study attempted to answer the following main research question: How do first-year student teachers experience and respond to e-formative feedback to support their learning in an ERL context? More specifically, the following research sub-questions guided the inquiry:

1. What are first-year students' experiences of receiving e-formative feedback on e-formative assessment during ERL?

2. How do first-year students respond to the e-formative feedback they receive during ERL?
3. Why do first-year students respond to e-formative feedback the way they do during ERL?

The first sub-question explored first-year student teachers' experiences of receiving e-formative feedback during ERL. This included how and when they accessed e-formative feedback as well as how that impacted their remote learning. The second sub-question interrogated the students' subsequent responses to receiving e-formative feedback – including whether or not they used it to inform their remote learning, how they used it and their emotional responses to e-formative feedback during ERL. The third sub-question unveiled the factors that influenced first-year students' subsequent responses to the e-formative feedback they received during ERL.

1.6 RESEARCH OBJECTIVES

Formative feedback is universally viewed as an important component of the formative assessment process as well as one of the strongest educational tools that have the potential to enhance learning (Hattie & Timperly, 2007; Stobart & Gipps, 2010). In the context of ERL, e-formative feedback has the potential to help students monitor their remote learning, identify the gap in their remote learning, and offer recommendations about how to close that gap, thereby developing their self-regulated learning capacities (Alqurshi, 2020; Ripoll, Godino-Ojer & Calzada, 2020; Shim & Lee, 2020). Taking into consideration the role that e-formative feedback plays in enhancing students' remote learning, this study sought to:

1. Explore first-year students' experiences of receiving e-formative feedback on e-formative assessment during ERL.
2. Explore how first-year students respond to e-formative feedback during ERL.
3. Explore reasons why first-year students respond to e-formative feedback the way they do during ERL.

While there is a broad consensus that students respond to and/or potentially use e-formative feedback, it remains unclear what shapes how they receive and their subsequent action to receiving e-formative feedback, specifically in the context of ERL.

Therefore, exploring first-year students' experiences of receiving e-formative feedback through a university's Canvas LMS and how they respond to e-formative feedback, explicitly during ERL helped explain what shapes and/or influences how they receive, interpret and respond to e-formative feedback.

1.7 THE CONTEXT OF THE STUDY

1.7.1 Scientific and geographical demarcation

This study was situated within the field of higher education, specifically focusing on students' experiences with e-formative feedback during Emergency Remote Learning (ERL). The research fell under the broader domain of educational technology and assessment, with a particular emphasis on first-year university students' experiences. The scientific scope of this study encompassed formative assessment theories and practices in higher education, emergency remote learning methodologies, feedback intervention and design theories, student engagement and self-regulated learning in online environments, and socio-cultural aspects of learning and assessment in digital spaces. While the study touched on various aspects of educational psychology and instructional design, its primary focus was on the lived experiences of students receiving e-formative feedback and how these experiences shaped their learning processes.

This study was conducted at a public university in South Africa, specifically focusing on first-year Bachelor of Education students. The university is in Johannesburg, serving a diverse student population from both urban and rural backgrounds. The geographical context was significant for several reasons, including South Africa's unique educational landscape characterised by historical inequalities and ongoing efforts to transform higher education, the varied access to technological resources among students reflecting broader socio-economic disparities in the country, the specific challenges faced by South African universities in transitioning to ERL during the COVID-19 pandemic, and the cultural and linguistic diversity of the student population which influences their engagement with e-formative feedback.

The university in which the study was conducted has over 30,000 students across a variety of undergraduate and postgraduate programmes, including health sciences,

humanities, and engineering, education, to mention a few. The student population is diverse, with international students from over 60 countries. This study specifically reports on first-year students who were registered for the teacher education programme. The teacher education programme is a 4-year Bachelor of Education degree (BEd), which certifies graduates to teach grades R-12. The programme integrates theoretical and practical learning to prepare future teachers.

Due to COVID-19, the university rapidly transitioned to remote learning in March 2020, utilising a Canvas LMS. Recorded lectures, online assignments, videoconferencing, and e-feedback delivery continued for over a year until gradual campus reopening. First-year student teachers in this study were enrolled for the Becoming a Teacher (BAT) course, which is a foundational first-year course required for all BEd students. Topics cover philosophy of education, lesson planning, classroom management, to mention a few. Weekly online discussions, readings, and written assignments were given, with e-formative feedback on Canvas LMS.

The major challenges faced included student access disparities, faculty technology skill gaps, and an initial decline in academic performance. However, extensive virtual student support was praised. Thirty-six first-year students who participated in this study had varied academic and technological backgrounds. All were pursuing a BEd and enrolled for the BAT course.

1.8 SIGNIFICANCE OF THE STUDY

This study provides valuable insight into an important yet understudied area - students' own perspectives and experiences of receiving and utilising e-formative feedback for self-directed learning. Much prior research has focused extensively on the instructor and/or pedagogical considerations of formative assessment. However, there remains a significant gap in understanding the student side of this equation. By exploring how students themselves view and engage with e-formative feedback processes, especially vulnerable groups like first-year students, this study enlightens a critical but overlooked area. The findings could substantially improve scaffolding and support for such students who face disproportionate challenges developing autonomous learning skills. This is

particularly true in remote learning contexts, lacking traditional in-person support, where understanding students' realities engaging with feedback could inform better designed assistance.

Additionally, this study uniquely examines formative assessment through an equity lens by consciously privileging and uplifting student voices. Rather than only looking at pedagogical strategy, it puts student needs and perspectives at the center. This orientation could lead to key recommendations that strengthen formative assessment practices in online environments in a more responsive, inclusive, and student-centered manner. As blended and hybrid education options multiply in the post-pandemic era, this exploration into students' formative feedback experiences could provide lasting value for informing teaching and learning best practices suited for emerging contexts.

Furthermore, this study aims to make an original contribution by addressing substantial gaps in both theoretical models and practical guidelines regarding impactful formative assessment tailored to remote environments and vulnerable students. By targeting the challenging transitional period of ERL, it could unveil discoveries that aid students and instructors alike when navigating similar large-scale disruptions. Such insights may guide refinements to feedback approaches, communication channels, and engagement strategies that better assist self-directed learning and student success during turbulent times.

Finally, the findings from this study could guide important reforms and policies aimed at supporting vulnerable and disadvantaged students during such challenging transitions. Insights gained can shape policies that are more student-centered, empowering, and responsive to diverse needs within the South African context across modalities. This aligns closely with national education goals around fostering self-directed learning and lifelong capabilities in students. The findings from this study could also guide the refinement of e-feedback mechanisms and instructional strategies in blended and online learning contexts, which have become increasingly prevalent post-ERL. The study offers a unique perspective on how students adapt to and utilise digital feedback tools, informing the design of more effective and student-centered assessment practice.

1.9 THEORETICAL FRAMEWORKS

In this study, I drew from the principles and assumptions of the Social Constructivism Theory to explore first-year student teachers' experiences of receiving e-formative feedback during ERL. Social Constructivism is a theory that emphasises the importance of culture and context in constructing knowledge and making meaning (Jones & Araje, 2002; Rummel, 2008). It suggests that individuals develop subjective meanings of their experiences that are negotiated socially and historically. This provides a useful framework for thinking about how students experience and make sense of the feedback they receive in the context of ERL. Feedback is a social process - even though remote feedback may not involve in-person interactions, students still make meaning of feedback through a "social" process of interpreting cues like tone, and phrasing, to mention a few. The cultural norms around receiving feedback impact how students perceive it (Jones & Araje, 2002).

E-formative feedback poses challenges to quality social engagement and knowledge building. This may affect how well students can internalise and apply the feedback to improve their remote learning. From a Social Constructivism lens and taking into consideration that e-feedback is mediated by cultural norms, student identities, power hierarchies, and instructors and peer interactions, this study explored these dynamics and how they shaped students' experiences of receiving e-formative feedback during ERL.

To further understand the dynamics of e-feedback and its impact on student learning, this study employed two other complementary theoretical frameworks: Kluger and DeNisi's (1996) Feedback Intervention Theory (FIT) and Narciss's (2008) Feedback Design Theory (FDT). Kluger and DeNisi's (1996) Feedback Intervention Theory (FIT) provides a framework for understanding how students process and respond to feedback. This theory suggests that the effectiveness of feedback depends on how it influences the student's attention and motivational processes. Specifically, FIT proposes that feedback can either direct the student's attention toward or away from the task, which in turn affects their motivation and performance (Kluger & DeNisi, 1996).

In this study, FIT helped me understand how the design and delivery of e-formative feedback influence students' attention and motivation. For example, if the e-feedback is

perceived as too critical or vague, it may direct students' attention away from the task and negatively impact their motivation and performance. On the other hand, specific and constructive e-feedback that highlights areas for improvement and provides guidance can focus students' attention on the task and enhance their motivation and learning (Narciss & Huth, 2004).

Narciss's (2008) Feedback Design Theory (FDT) complements FIT by providing a more specific framework for designing effective feedback interventions. FDT proposes that feedback should be designed based on the function it serves (e.g., cognitive, motivational, or metacognitive), the type of information it provides (e.g., knowledge about the task, processing, or self-regulation), and the way it is presented (e.g., simple or elaborated) (Narciss, 2008). In the context of this study, FDT provided a guideline for me to examine how textual e-formative feedback influence students' cognitive, motivational, and metacognitive processes (Narciss, 2013). For example, FDT helped me investigate the effectiveness of text-based tools in either supporting or hindering students' understanding, motivation, and self-regulation strategies.

By integrating the three theoretical perspectives, this study aimed to gain a comprehensive understanding of first-year student teachers' experiences of receiving e-formative feedback during ERL, encompassing the social, cognitive, and affective dimensions of the feedback process. The application of these frameworks informed the analysis of how e-formative feedback is perceived, processed, and utilised by first-year student teachers, ultimately contributing to the development of more effective e-feedback strategies and practices in educational contexts.

1.10 OUTLINE OF RESEARCH METHODOLOGY AND DESIGN

This section provides a preliminary overview of the research methodology and design. A more detailed discussion of the research design and the rationale for the choice of methodology is presented in Chapter 4.

This study is situated within an interpretivist paradigm that is concerned with constructed realities and subjective meaning-making (Guba & Lincoln, 2018; Mertens, 2021). The interpretivist paradigm assumes that knowledge and truth emerge from lived experiences

and social interactions (Berger & Luckmann, 1966). This aligns with the goal of understanding students' perspectives and making sense of their realities regarding e-formative feedback. Specifically, an interpretivist lens recognises that realities are multiple, complex, and socially constructed through processes of interpretation (Angen, 2000). Thus, interpretivism was fitting for this study exploring how students interpret, negotiate, and ascribe meaning to digitally-mediated formative feedback within a specific remote learning context. Adopting an interpretivist perspective allowed for an inductive, context-specific exploration of the nuances and complexities of students' feedback experiences from their standpoint (Ryan, 2018). Furthermore, interpretivism guided the transactional relationship between the researcher and participants, foregrounding student voices while acknowledging the researcher's interpretations (Ponterotto, 2005). This was aligned with elucidating students' perspectives on e-feedback using qualitative methods like interviews. Ultimately, interpretivism enabled rich insights into students' lived realities that quantitative measures could not capture.

The study adopted a qualitative methodology to gain rich insights into participants' lived realities from their worldview (Guba & Lincoln, 2018; Mertens, 2021). Qualitative methods like semi-structured interviews and focus groups enabled an in-depth exploration of students' subjective experiences, meaning-making, and contextual interactions with formative feedback during ERL (Marshall & Rossman, 2016). Ultimately, the interpretive, inductive nature of qualitative inquiry (Aspers & Corte, 2019) enabled illumination of the nuances and meanings in students' engagement with formative feedback during a time of remote disruption.

A case study design was used to explore first-year students' e-formative feedback experiences (Yin, 2018). Initially, remote data collection methods were planned due to COVID-19 restrictions. These included virtual interviews and focus groups through video conferencing platforms (e.g., Zoom or Microsoft Teams) (Lobe, Morgan & Hoffman, 2020; Dodds & Hess, 2021). However, once campus reopened, I opted for in-person interviews and focus groups to foster better rapport, observe non-verbal cues, and capture both individual and shared group perspectives (Merriam & Tisdell, 2015; Smith, 2021). This shift allowed for a more nuanced understanding of participants' experiences compared to

the limitations of screen-mediated interactions. Participants were purposively and conveniently selected from a single "Becoming a Teacher" (BAT) course to create a bounded, shared understanding (Jazvac-Martek, 2009). To ensure that students' participation in the study remains anonymous, I used pseudonyms to represent their participation and I excluded any identifying information in this study.

In this study, Grounded Analysis was applied to analyse the interviews and focus groups data, an approach that is well-suited for qualitative studies focused on understanding personal experiences (Corbin & Strauss, 2015). More specifically, I employed inductive Thematic Analysis (TA) following Braun and Clarke's (2021) guidelines to analyse the data. This process involved personally transcribing and familiarising myself with the interviews and focus group data, systematically coding relevant excerpts, and identifying overarching themes that captured broader patterns across participant responses. Through continuous refinement and review against both coded extracts and the full dataset, I developed a finalised thematic structure. This approach allowed themes to emerge directly from the data, rather than fitting responses into a pre-existing framework (Thomas, 2006), ensuring a thorough exploration of first-year students' experiences of receiving e-formative feedback. This data-driven approach aligned with my goal of learning from students' voices to gain insights into their firsthand e-formative feedback experiences at this specific university during the unique context of the COVID-19 pandemic.

1.11 BRIEF OUTLINE OF THE CHAPTERS

The structure of this thesis encompasses seven chapters:

Chapter 1: Orientation to the study

This introductory chapter established the background and context for a study exploring students' experiences and perspectives regarding e-formative feedback during ERT&L necessitated by the COVID-19 pandemic in South Africa. It presents the problem statement centered on the lack of insight into how students make sense of and utilise e-formative feedback for self-directed learning when instruction pivots online. The chapter then outlines the study's research questions, objectives, context, significance, theoretical

frameworks, qualitative methodology, and chapter overview. Overall, this opening chapter orients the reader to key elements of a qualitative study uniquely focused on elucidating first-year university students' lived realities of receiving and engaging with formative assessment feedback to guide their learning when traditional face-to-face supports are lacking during an abrupt ERT&L transition.

Chapter 2: Literature review

Chapter 2 provides an in-depth review and critical synthesis of scholarly literature on formative assessment in general, and formative assessment and feedback amidst the pivot to ERL in higher education brought on by the COVID-19 pandemic. The chapter maps out and interrogates the progression of key perspectives and discourse on e-formative assessment strategies, the role of prompt e-formative feedback, and insights into students' lived experiences of receiving such feedback in rapidly transitioned ERL environments. The literature review opens by tracing the origins of ERT&L and documenting the growing scholarly conversation regarding the monumental impact of this unforeseen shift on assessment and feedback protocols. I critically engage with an array of literature elucidating common assessment adaptations made for ERL across universities internationally, analysing both opportunities leveraged and persistent challenges that emerged regarding ensuring consistent standards and equitable evaluation practices across modalities. This chapter emphasises the impact of ERL on e-formative assessment and e-formative feedback, as well as on students' experiences of receiving e-formative feedback during ERL. The reviewed literature is presented thematically. I conclude the chapter with a discussion of the gaps in the literature that give relevance to my study.

Chapter 3: Theoretical framework

The theoretical lenses for this study are derived from Social Constructivism, Kluger and DeNisi's (1996) Feedback Intervention Theory (FIT), and Narciss's (2008) Feedback Design Theory (FDT). Social Constructivism perspectives on personalised guidance and active meaning-making provided insight on accessibility issues and self-regulation capacities. Meanwhile, FIT highlighted the pivotal role of cognitive load and motivation,

shedding light on timing factors, valence issues, emotionality, and marks focus. Finally, FDT corroborated the need for tailored, coherent comments targeting needs and progression, relevant to specificity, clarity, and amount of feedback. Together these theories explained how suboptimal e-feedback design, emotional impact, and dispositional influences inhibited receptivity and use of comments. They also underscored the potential for purposeful, student-centered approaches to instead motivate engagement through scaffolded support responsive to students' zone of proximal development.

Chapter four: Research methodology

In chapter four, I outline the research methodology and design in which I give reasons as to why I chose to adopt a qualitative case study approach and to locate this study in the interpretive paradigm. I begin the chapter with a theoretical discussion of the research methodology and design and go on to discuss the data collection and data analysis methods that I used in this study. I conclude the chapter with detailed issues of sampling, trustworthiness, ethical considerations, and methodological limitations.

Chapters five: Presentation of findings

In this chapter, I present the findings about first-year student teachers' experiences of receiving e-formative feedback during ERL. The findings are presented with direct quotations from the participants' responses from semi-structured interviews and focus group discussions. Here, I present different experiences of receiving e-formative feedback during ERL as detailed by first-year students during the data collection process. With the main research question in mind – How do first-year student teachers experience and respond to e-formative feedback to support their learning in an ERL context? – I answer the two sub-questions: What are first-year students' experiences of receiving e-formative feedback on e-formative assessment during ERL? And how do first-year students respond to the e-formative feedback they receive during ERL? The findings in this study are presented according to themes generated from the data for this study.

Chapter six: Discussion of findings

In this chapter, I analyse and interpret the key findings from this study in light of the literature reviewed in Chapter 2. Furthermore, I situate and examine the findings through the lenses of the three theoretical frameworks adopted for this study: Social Constructivism, Feedback Intervention Theory (FIT), and Feedback Design Theory (FDT). By grounding the discussion in the existing literature and theoretical underpinnings, I aim to provide a comprehensive understanding of first-year student teachers' experiences with receiving and responding to e-formative feedback during ERL at a South African university. This discussion elucidates the factors that influenced these experiences and sheds light on the implications for enhancing e-formative feedback practices in teacher education programs, particularly in times of crisis or disruption.

Chapter seven: Summary of findings and Conclusion

In chapter seven, I present an overview of my study, with a summary of the findings and conclusions made with regard to the research questions. This chapter also addresses the third sub-question: Why do first-year students respond to e-formative feedback the way they do during ERL? I then propose a framework for re-thinking students' e-feedback experiences. The framework offers a conceptual representation designed to support the learning process in providing e-feedback that is ‘fit for purpose’ (Brown, 2004; Gibbs & Simpson, 2004). Drawing from the framework and my findings, I propose strategies to address e-formative feedback challenges and discuss the relevance of my study post-ERL. Lastly, the chapter provides implications and limitations of this PhD thesis; and based on that, makes suggestions for future research.

1.12 CONCLUSION

This introductory chapter has oriented the reader to key elements providing rationale and framing for this study on students' experiences with e-formative feedback during ERL. The background highlighted critical issues surrounding the COVID-19 driven pivot to remote learning and how that impacted assessment protocols, necessitating alternative formative approaches. However, gaps in understanding the student perspective on digitally enabled feedback processes were exposed. The problem statement, research

questions, objectives, context, significance, and methodology overview situated this qualitative exploration of the underexamined phenomenon of students' lived realities receiving and translating e-feedback into meaningful learning practices. An interpretivist, student-centered lens guides investigation into the complex issue of effective formative assessment support for vulnerable students lacking traditional scaffolding during an abrupt educational transition.

Ultimately, this study privileges marginalised voices to enrich practical and theoretical foundations for designing responsive, motivational e-assessment systems suited for diverse needs amidst remote disruption. The next chapter reviews literature.

CHAPTER 2 LITERATURE REVIEW

> "*Understanding students' reaction to feedback on their coursework is crucial in being able to deliver feedback which motivates them and helps them to do better.*" (Jones et al., 2012, p. 2)

2.1 Introduction

In the previous chapter, I established the foundation for this study exploring first-year student teachers' experiences with e-formative feedback during emergency remote learning. In this chapter, I provide a review of the literature relevant to this study. A literature review is defined as a critical evaluation of research findings relating to a specific topic (Nene, 2014; Pillay, 2013). Researchers compile literature reviews to find out what knowledge already exists in their field of study, to identify missing gaps and to come up with possible solutions in their study to bridge the gaps (Nene, 2014). To enhance their understanding of a particular phenomenon, researchers need to understand what has been studied before, the strengths and weaknesses of previous studies and what these mean for their study (Nene, 2014). Exploring a particular phenomenon requires researchers to review the literature in order to develop a deeper understanding of the study topic – this will ultimately help them achieve noteworthy research (Nene, 2014). The purpose of a literature review is, therefore, to outline existing knowledge, including substantive findings, as well as theoretical and methodological contributions to a particular topic (McMillan & Schumacher, 2010).

This study explored first-year students' experiences of receiving e-formative feedback in the context of Emergency Remote Learning (ERL). This literature review was organised thematically and focused on the following major themes:

- The origin and purpose of Emergency Remote Learning
- Formative assessment in higher education
- Formative assessment during Emergency Remote Learning
- Theorising e-formative assessment
- Theorising e-formative feedback

- A review of students' experiences of receiving e-formative feedback during Emergency Remote Learning
- E-formative feedback challenges on learning outcomes
- Implications of the literature

2.2 ORIGIN AND PURPOSE OF EMERGENCY REMOTE LEARNING

Emergency Remote Learning (ERL) has been globally undertaken as an emergency response to facilitate the shift from traditional face-to-face classroom learning to remote learning due to the COVID-19 pandemic (Srivastava, Jacob, Charles, Daniel, Mathew, Shanthi, Devamani, Mahasampath & Rabi 2021). ERL is a unique mode of learning which is essentially different from online learning (Srivastava et al., 2021). While online learning is well thought out and planned, ERL is an immediate response, primarily as a means of continuing education during a crisis (Hodges, Moore, Lockee, Trust & Bond, 2020; Rahiem, 2020; Srivastava et al., 2021). The global outbreak of the COVID-19 pandemic and the subsequent implementation of social distancing protocols resulted in a rapid transition to ERL between March and April 2020 for most universities around the world (Scherer, Howard, Tondeur & Siddiq, 2021). According to the Global Education Coalition launched by United Nations Educational, Scientific, and Cultural Organisation (UNESCO), universities in several countries, including in South Africa, fully or partially closed their campuses to limit the spread of COVID-19 infection (Elsalem, Al-Azzam, Obeidat, Sindiani & Kheirallah, 2020; Mukuka, Shumba & Mulenga, 2021; UNESCO, 2020) and swiftly shifted to ERL to ensure that teaching and learning continued, and the quality of assessment was maintained (Alqurshi, 2020; Shim & Lee, 2020).

Emergency Remote Education (ERE) implies that students are physically distant from their instructors and therefore teaching and learning, and assessment processes are facilitated by technology (Aguilera-Hermida, 2020). If technology is used effectively, Emergency Remote Teaching and Learning (ERT&L) can assist students and instructors to mutually engage and collaborate in the teaching and learning process and can encourage students to play an active role in their own remote learning (Aguilera-Hermida, 2020). Moreover, e-formative feedback on e-formative assessments during ERL can help develop students' self-regulated learning capacities – which ERL's effectiveness highly

depends on (Aguilera-Hermida, 2020; Shim & Lee, 2020). Therefore, it is important to explore how students experience and potentially use e-formative feedback during ERL as this can provide information that can help modify e-formative feedback practices to assist and support students during ERL. Given the newness of the situation in the South African higher education context, research on first-year students' experiences of receiving e-formative feedback during ERL is a matter of urgency.

2.3 FORMATIVE ASSESSMENT IN HIGHER EDUCATION

Formative assessment in higher education plays a crucial role in enhancing student learning and academic performance. Unlike summative assessment, which evaluates learning at the end of an instructional unit, formative assessment is an ongoing process that provides continuous feedback to both students and instructors throughout the learning journey (Yan, Panadero, Yang, Yang & Laoet, 2022). At its core, formative assessment aims to monitor student learning and provide immediate, actionable feedback that can be used to improve teaching and learning strategies. This approach aligns with contemporary educational theories that emphasise the importance of active learning and student engagement (Bearman, Dawson, Bennett, Hall, Molloy, Boud, & Joughinet, 2021).

One of the key characteristics of formative assessment is its focus on feedback rather than grading. While summative assessments typically result in a final grade or score, formative assessments are designed to provide detailed, constructive feedback that students can use to enhance their understanding and skills (Winstone & Boud, 2022). This feedback-centric approach encourages students to become more reflective and self-regulated learners, taking ownership of their educational journey. Recent research has highlighted the importance of dialogue in formative assessment. Carless and Boud (2018) emphasise the need for feedback to be a two-way communication process, where students actively engage with the feedback they receive and have opportunities to discuss it with their instructors and peers. This dialogic approach to formative assessment can help clarify expectations, address misconceptions, and foster a deeper understanding of the subject matter.

Formative assessment in higher education can take many forms, including classroom discussions, quizzes, peer assessments, self-assessments, and project drafts. The key is that these assessments are low-stakes and frequent, allowing for regular check-ins on student progress (Yan et al., 2022). This contrasts with summative assessments, which are typically high-stakes and occur less frequently, often at the end of a unit or course. Another important aspect of formative assessment is its ability to inform teaching practices. By regularly assessing student understanding, instructors can identify areas where students are struggling and adjust their teaching strategies accordingly (Panadero, Broadbent, Boud & Lodgeet, 2022). This adaptive approach to teaching is particularly valuable in higher education, where complex concepts often build upon one another.

In conclusion, formative assessment in higher education represents a shift towards more student-centered, learning-oriented assessment practices. Unlike summative assessment, which primarily serves to evaluate learning outcomes, formative assessment is integral to the learning process itself. By providing ongoing feedback and opportunities for improvement, formative assessment supports deeper learning, enhances student engagement, and allows for more responsive teaching practices. As higher education continues to evolve, the role of formative assessment in promoting effective learning and teaching is likely to become increasingly important.

2.4 FORMATIVE ASSESSMENT DURING EMERGENCY REMOTE LEARNING

The sudden shift to ERL due to the COVID-19 pandemic forced institutions to rapidly adapt their assessment practices, leading to significant changes and challenges in how student learning was evaluated. One of the most immediate impacts was the necessity to transition traditional face-to-face assessments to remote formats. This shift required instructors to reimagine assessment methods, often leading to an increased reliance on digital tools and platforms (García-Peñalvo et al., 2021). Many institutions adopted online proctoring systems, digital portfolios, and asynchronous assessment methods to maintain academic integrity while accommodating the new learning environment (Guangul et al., 2020). The transition to ERL also highlighted the need for more flexible and diverse assessment strategies. Traditional high-stakes exams were often replaced with continuous assessment methods, including more frequent, lower-stakes assignments

and projects. This shift aligns with the growing recognition of the importance of e-formative assessment in supporting student remote learning (Yan et al., 2021).

2.5 THEORISING E-FORMATIVE ASSESSMENT

There are many theories about the meaning and purpose of e-formative assessment (Hansen, 2020; Köhlen, 2017). While literature shows that there are numerous typologies of e-formative assessment and its purpose, there is a consensus that e-formative assessment is beneficial for remote learning (Alqurshi, 2020; Ripoll, Godino-Ojer & Calzada, 2020; Shim & Lee, 2020). In this section, I discussed the meaning and purpose of e-formative assessment as well as the impact of ERL on e-formative assessment and on students' learning outcomes.

2.5.1 Meaning of e-formative assessment

E-formative assessment (also referred to as e-assessment *for* learning) does not have a tightly defined and widely accepted meaning. However, it has been recognised as one of the most effective ways to facilitate students' remote learning (Alqurshi, 2020; Ripoll et al., 2020; Shim & Lee, 2020). E-formative assessment differs from e-summative assessment (also referred to as e-assessment *of* learning) in the frequency of administration, the relative length of the assessment, and instructional purpose (Shim & Lee, 2020). While e-summative assessment usually occurs after learning has taken place; and as such, it has its own legitimised function in teacher education (e.g., serving an accountability warrant) (Shim & Lee, 2020), e-formative assessment occurs in alignment with remote classroom instruction and learning (Alqurshi, 2020; Ripoll et al., 2020; Shim & Lee, 2020).

E-formative assessment is fundamentally a remote collaborative act that takes place between the instructor and students (Hansen, 2020). Some researchers define e-formative assessment as a set of remote classroom procedures whereby evidence about students' achievement is elicited, interpreted, and used by instructors, students, or their peers, to make decisions about the next steps in remote instruction that are likely to be better, or better founded, than the decisions they would have taken in the absence of the evidence that was elicited (Alqurshi, 2020; Ripoll et al., 2020; Shim & Lee, 2020). Others

define e-formative assessment as techniques used by instructors during the remote learning process, to obtain immediate feedback on how the students' remote learning is progressing (Ripoll et al., 2020). E-formative assessment is also defined as the process of seeking and interpreting evidence for use by students and their instructors, to identify where the students are in their remote learning, where they need to go and how best to get there (Alqurshi, 2020; Ripoll et al., 2020). Drawing from these definitions, one may say that e-formative assessment is an educational tool that provides instructors and students with information that can be used as feedback to modify the remote teaching and learning process (Hansen, 2020).

E-formative assessment is conducted through formal and informal e-assessment activities throughout the remote learning process (Hansen, 2020). It is seen as a tool to create an atmosphere for lifelong learning which can encourage students to continuously reflect on their own remote learning and to make value judgements of their strengths and weaknesses (Hansen, 2020). This form of assessment is explicitly intended to support students' remote learning, thus defining the role of the student as an active, creative, and reflective participant in the remote learning process (Shute & Zapata-Rivera, 2010; Alqurshi, 2020; Ripoll et al., 2020). Learning environments that make use of e-formative assessment typically include individualised instruction, along with hands-on, authentic learning activities (Alqurshi, 2020). E-formative assessment tasks can include remote questioning and discussions (Chin, 2006), observation of activities (Hansen, 2020), and online extended-response questions (Alqurshi, 2020; Ripoll et al., 2020; Shim & Lee, 2020). Drawing from these definitions of e-formative assessment, one may say that e-formative assessment is an essential component of remote classroom work and can raise standards of achievement, specifically when it is complemented by effective e-formative feedback (Alqurshi, 2020; Ripoll et al., 2020; Shim & Lee, 2020). In the context of ERL, where learning is dependent on students' self-regulated learning capacities, e-formative assessment can help enhance these capacities, and ultimately enhance students' academic achievement (Alqurshi, 2020; Shim & Lee, 2020).

2.5.2 Purpose of e-formative assessment

E-formative assessment is an integral part of remote teaching and learning and serves different purposes as it is intended to assist and enhance the remote learning process rather than to measure what students have learned (Ripoll et al., 2020; Shim & Lee, 2020). E-formative assessment can be used to inform the remote teaching and learning process so that further learning can take place (Hansen, 2020). The assumption associated with e-formative assessment is that it can help instructors identify what students know so that further remote teaching can build on that (Hansen, 2020; Shim & Lee, 2020). In other words, the purpose of e-formative assessment is to assist the instructor to identify students' prior knowledge so that remote classroom instruction can build on this knowledge to assist students to progressively move towards more complex forms of knowledge (Shim & Lee, 2020). Another purpose of e-formative assessment is to assist instructors to quickly and efficiently identify students in need of support, create remote instructional targets for those students, monitor students' growth towards those goals, and then determine when intervention and supports need to be altered or are no longer needed (Alqurshi, 2020; Ripoll et al., 2020; Shim & Lee, 2020). In the context of ERT, this suggests that e-formative assessment can be used for decision making purposes to assist instructors make decisions about the adaptation or differentiation of remote instruction around the most critical areas of need and receive continuous and immediate feedback about how well their remote instruction is working (Alqurshi, 2020; Ripoll et al., 2020; Shim & Lee, 2020).

Another assumption associated with e-formative assessment is that it can encourage students to play an active role in the remote learning process, thus it can be used by students for monitoring and regulating their own remote learning (Hansen, 2020; Stobart & Gipps, 2010) – this is important during ERL. Students can use e-formative assessment to gather information about their own ongoing understanding of the content knowledge (Hansen, 2020), and may use this information to enhance their remote learning and improve their academic performance. Research conducted on e-formative assessment and its impact on student achievement reveals a positive correlation between assessment and academic achievement (Ripoll et al., 2020). The study revealed that students who

consistently completed frequent e-formative assessments throughout the remote learning process performed better on a variety of indicators than their peers who did not (Ripoll et al., 2020). In this regard, it may be said that the legitimate purposes of e-formative assessment are to provide feedback, improve students' academic performance and permit realistic adjustment of proximal remote learning goals (Alqurshi, 2020; Ripoll et al., 2020; Shim & Lee, 2020).

2.5.3 Impact of Emergency Remote Learning on e-formative assessment and learning outcomes

The emergent COVID-19 pandemic led to the shift to ERL which raised important challenges for universities, specifically in terms of conducting assessments and ensuring that students continued with their studies (Elsalem, Al-Azzam, Jum'ah, Obeidat, Sindiani & Kheirallah, 2020). Remote assessments (e-assessments) were introduced as an effective mode of assessment with particular prioritisation on e-formative assessment as an educational tool to continuously monitor students' remote learning progress (Alqurshi, 2020; Elsalem et al., 2020; Shim & Lee, 2020). While formative assessment is endorsed as beneficial to learning (Harris et al., 2014), ERL brought about challenges for students that interfered with their engagement with e-formative assessment and subsequently interfered with their remote learning and their learning outcomes (Elsalem et al., 2020; Fluck, 2019).

A recent study conducted at Graphic Era Hill University in India revealed that technical problems (e-assessment platform and internet connectivity) were reported as major challenges relating to e-formative assessment during ERL (Raj, Jasola & Ila, 2020). The study revealed that internet connection was an issue for students from lower-income families who did not own computer devices or internet access – consequently, this constrained their access to e-formative assessments and subsequently interfered with their remote learning (Raj et al., 2020). Similar findings were documented in a study conducted at Jordan University of Science and Technology (Elsalem et al., 2020). The study was conducted through a survey of 29 questions which was prepared on Google Forms and distributed among students at Faculties of Medical Sciences (Medicine,

Dentistry, Pharmacy, Nursing and Applied Medical Sciences) (Elsalem et al., 2020). The study revealed that students encountered problems with the e-formative assessment platforms, including problems accepting the password which caused delays in starting the e-assessment – specifically when answering e-formative tests (Elsalem et al., 2020). Other technical problems reported by students in the study were challenges with saving and restoring answers throughout the e-formative assessment system (Elsalem et al., 2020).

Other challenges relating to e-formative assessment experienced by students during ERL documented in Elsalem et al.'s (2020) study included e-formative assessment duration and mode of navigation between questions. The study revealed that more than 75% of students in the study reported that the deadlines for e-formative assessments were a major problem. Students in this study reported that the time given to interpret all learning material as well as time to explore e-formative assessment questions was limited (Elsalem et al., 2020). As a result, students ended up learning for tests rather than for understanding the content knowledge. Students in this study also reported that navigation between e-formative assessment questions and/or through the e-assessment submission platform was confusing and time consuming (Elsalem et al., 2020). As a result, students submitted their answers late and/or submitted incomplete e-formative assessments.

Another study that explored students' experiences of e-formative assessment during ERL was conducted at Mizoram University (Mishra, Gupta & Shree, 2020). This study revealed that students experienced challenges with e-formative assessment questions because they were inappropriate to the teaching given (Mishra et al., 2020). The study concluded that the mismatch between e-formative assessment questions and the remote teaching given was due to the unreadiness of both instructors and students for Emergency Remote Teaching and Learning (ERT&L) (Mishra et al., 2020). The findings that support Mishra et al. (2020) were documented in Elsalem et al.'s (2020) study which revealed that resources, staff readiness, confidence, student accessibility and motivation have valuable roles in achieving integrated remote learning, particularly during these exceptional circumstances of ERT&L. A lack of these factors can interfere with students' engagement

with e-formative assessment and ultimately constrain their remote learning (Elsalem et al., 2020).

The above discussion outlines the challenges relating to e-formative assessment experienced by university students during ERL. Technical problems, e-formative assessment duration and/or deadlines, and the mismatch between e-formative assessment questions and remote teaching given were some of the common challenges experienced by students during ERL (Elsalem et al., 2020; Mishra et al., 2020; Raj et al., 2020). These challenges had significant implications for learning outcomes. Technical problems, which were widely reported (Elsalem et al., 2020; Mishra et al., 2020), often disrupted the assessment process, leading to increased stress and potentially compromised performance. These disruptions may have prevented students from fully demonstrating their knowledge and skills, potentially resulting in assessments that did not accurately reflect their learning (Guangul, Suhail, Khalit & Khidhir, 2020). Consequently, the reliability and validity of these assessments could be questioned, potentially impacting the overall evaluation of student progress and achievement.

The issues surrounding e-formative assessment duration and/or deadlines (Raj et al., 2020) also had notable effects on learning outcomes. Tight deadlines or insufficient time allocations for online assessments may have led to superficial engagement with the material, as students prioritised completion over deep understanding. This could have resulted in surface learning approaches, where students focused on memorisation rather than comprehension, potentially hindering the development of critical thinking skills and long-term retention of knowledge (Biggs & Tang, 2011). Perhaps most concerning was the mismatch between e-formative assessment questions and the remote teaching provided (Mishra et al., 2020). This disconnect could have led to a misalignment between learning objectives, instructional methods, and assessment practices – a crucial triad in effective education known as constructive alignment (Biggs, 2003). When assessments do not accurately reflect the content or skills taught, students may become demotivated, questioning the relevance of their learning activities. This misalignment could result in learning outcomes that do not accurately represent the intended curriculum objectives, potentially leaving gaps in students' knowledge and skill development (Villarroel,

Bloxham, Bruna, Bruna & Herrera-Seda, 2018). Moreover, these challenges collectively may have exacerbated existing inequalities among students. Those with better technological access and more supportive home environments were likely better positioned to overcome these obstacles, potentially widening the achievement gap (Hodges et al., 2020). The stress and anxiety induced by these challenges could also have long-term impacts on students' self-efficacy and attitudes towards learning, potentially affecting their future academic performance and career aspirations (Moawad, 2020).

Drawing from the students' experiences and e-assessment challenges discussed above, it may be said that it is important not to overlook students as a vital resource to inform e-formative assessment practices. Exploring students' experiences of e-formative assessment practices may help instructors modify and/or adopt e-assessment practices that may alleviate some of the challenges experienced by students during ERL. E-formative feedback is a key component of e-formative assessment because learning occurs through the use of e-formative feedback (Alqurshi, 2020; Ripoll et al., 2020; Shim & Lee, 2020). For this reason, exploring how students experience and potentially use e-formative feedback, specifically in the circumstances of ERL, can help enhance one's knowledge about students' e-formative feedback needs, which may help with the provision of e-feedback that supports students' remote learning even post-ERL as higher institutions incorporate online and blended learning approaches into their regular curricula.

I acknowledge that instructors also faced significant challenges in implementing e-formative assessments during ERL. The sudden shift to remote teaching required rapid adaptation of assessment practices, often with limited training or preparation time. Instructors grappled with issues such as maintaining academic integrity, ensuring equitable access to technology, and adapting their feedback methods to the digital environment. However, while I recognise these instructor challenges, the focus of my study is specifically on the student experience. This choice was deliberate, as student perspectives on e-formative feedback during ERL were underrepresented in the literature at the time of my research. By concentrating on student experiences, I aimed to provide

insights that complement existing research on instructor challenges and offer a more holistic view of e-formative assessment during ERL.

It is important to note that my focus on student experiences does not diminish the significance of instructor challenges. Rather, it reflects a research design aimed at filling a specific gap in our understanding of ERL. Future research combining both instructor and student perspectives would undoubtedly provide a more comprehensive picture of e-formative assessment during extraordinary circumstances like ERL.

2.6 THEORISING E-FORMATIVE FEEDBACK

As noted above, e-formative feedback is a key facet of e-assessment because remote learning occurs through e-formative feedback (Alqurshi, 2020; Ripoll et al., 2020; Shim & Lee, 2020). While literature shows that e-feedback is a multifaceted concept with multiple definitions, e-formative feedback is universally endorsed as a powerful educational tool that can improve students' remote learning (Alqurshi, 2020). In this section, I discussed the meaning and purpose of e-formative feedback, modes of e-feedback and factors influencing the effectiveness of e-formative feedback during Emergency Remote Learning.

2.6.1 Meaning and purpose of e-formative feedback

E-formative feedback is an important component of the e-formative assessment process (Hansen, 2020). It is a multifaceted concept that has multiple definitions offered by literature. In an educational context, e-formative feedback is described as the practice of giving students responses on completed learning activities and informing them about what they need to do next to improve their remote learning (Hattie & Gan, 2011; Shim & Lee, 2020). Different authors provide a similar conception of the term 'e-formative feedback' (Elsalem et al., 2020; Mishra et al., 2020; Raj et al., 2020). E-formative feedback is any information which enhances students' remote learning based on comments relating to their remote learning progress (Elsalem et al., 2020). E-formative feedback is also defined as any information that gives students knowledge about their understanding, or lack thereof, of the content knowledge (Ngwenya & Maistry, 2012). E-feedback is also referred to as a form of remote communication to students, which informs

them about the gap between where they are in their learning and where they need to be (Mishra et al., 2020). Additionally, e-formative feedback is defined as any information that is given to students remotely, to inform them if their responses to an assessment task are right or wrong (Raj et al., 2020).

The main purpose of e-formative feedback is to highlight the discrepancy between current understanding and performance on one hand and the learning goal on the other, and to encourage and enable students to reduce the discrepancy (Raj et al., 2020). Similarly, Mishra et al. (2020) maintain that the purpose of e-formative feedback is to provide information to students about how to modify their thinking in order to improve their learning. To enable students to reduce the discrepancy between the learning goal and their current performance on a particular assessment, they should be informed about whether or not they applied the knowledge needed for the task (strengths and weaknesses), and they should be given information that will help them understand how to better answer similar assessments in future (Rakoczy, Pinger, Hochweber, Klieme, Schütze &Besser, 2019). By giving students information about their strengths, weaknesses, and strategies for improvement (referred to as process-oriented feedback), students will be able to answer three feedback questions, as outlined in Hattie and Timperley (2007): Where am I going? How am I going? Where to next?

In the context of ERL, e-formative feedback is regarded as the most trusted educational tool that can help students identify the strong and weak points in their academic performance, as well as learn what they need to do next to improve their future performance (Hamamorad, 2016; Supiano, 2020). Researchers have argued that e-formative feedback should help students develop into self-regulated individuals who can use e-feedback information to improve their own learning (Gardner, Harlen, Hayward & Stobart, 2010; Sambell, McDowell & Montgomery, 2013; Wiliam, 2011) – more so in the context of ERL (Alqurshi, 2020; Supiano, 2020). For this reason, it may be said that the need for continuous e-formative feedback in the process of teaching and learning, especially during ERL, is undeniable (Hamamorad, 2016; Alqurshi, 2020; Supiano, 2020). E-formative feedback is used for various reasons, however, Supiano (2020) states that the basic purposes of e-formative feedback are to help increase students' academic

competence, to make students aware of their strengths and weaknesses, to provide students with guidance to bridge the gap in their remote learning, to promote students' confidence and attitude towards remote learning; and to help develop students' self-regulatory capacities (Supiano, 2020).

E-formative feedback can make an instructor aware of each student's strengths and weaknesses (Hamamorad, 2016). It can also provide an opportunity for an instructor to reflect on their remote teaching style or methodology and make the necessary changes in order to make the remote teaching and learning process more successful, especially during the exceptional circumstances of ERL (Shim & Lee, 2020). E-formative feedback is a vital ingredient for success; thus, it is almost impossible to improve knowledge and support skill acquisition in an educational context without using it (Shim & Lee, 2020). Although e-formative feedback has been studied as a powerful educational tool (Shim & Lee, 2020; Supiano, 2020), there seems to be a lack of concern about how students receive, interpret and respond to e-formative feedback. This study sought to unveil first year university students' experiences of receiving e-formative feedback as well as why they respond to e-formative feedback the way they do, specifically during ERL in the South African context.

2.6.2 Modes of e-formative feedback

The COVID-19 pandemic has had a profound impact on all those residing in South Africa, resulting in unprecedented changes being made to the education and training of university students (Sarcona, Dirha & Davidson, 2020). The immediate shutdown of face-to-face teaching and learning and a sudden shift to ERT&L forced instructors to swiftly adopt e-formative feedback practices (Sarcona et al., 2020). Most universities launched their own Canvas LMSs through which e-formative feedback on assessments was given to students (Sarcona et al., 2020). These LMSs made it possible for instructors to provide students with e-formative feedback on their assessments using different modalities (Sarcona et al., 2020). In the South African university context, e-formative feedback during ERL was given to students through audio, video and text-based modalities.

2.6.2.1 *Audio formative feedback*

Audio feedback refers to oral comments about students' performance in a particular assessment task (Chidiebere, 2015). It is used to orally communicate to students any information about the strengths and weaknesses of their work. During ERT&L, instructors could audio record and submit comments about their students' academic performances on LMSs (Sarcona et al., 2020). The advantages associated with audio feedback include that it helps to address the needs of students who prefer oral modalities, either because they have been diagnosed with a text-based learning disability (e.g., dyslexia) or because they are visually impaired (Merry & Orsmond, 2008). Audio feedback also allows more information to be conveyed to students in the same amount of time; thus, the level of detail provided in the comments is greater (Brearley & Cullen, 2012; Huang, 2002; Macgregor, Spiers & Taylor, 2011; Sarcona et al., 2020).

Although there are advantages inherent in the use of audio feedback, there are also disadvantages associated with this mode of providing feedback: students may misunderstand audio feedback (Chidiebere, 2015); and the pace of audio feedback may not be appropriate for all students (Sarcona et al., 2020). Specifically, in the context of ERT&L, it may be time consuming to provide audio feedback in terms of preparation and time spent learning new technologies (Sarcona et al., 2020).

2.6.2.2 *Video formative feedback*

Video feedback has been incorporated into higher education, especially during ERT&L (Chen & Li, 2020; Sarcona et al., 2020). Video feedback is used to communicate information about students' work using digital images (Sarcona et al., 2020). Instructors can either video record themselves while they communicate feedback to students, or they can video record sections of students' work to give insights into aspects of their performance (West & Turner, 2015; Sarcona et al., 2020). The most notable advantage of video feedback is the potential for demonstrations (e.g., seeing as opposed to being told how to improve subsequent coursework) (Abrahamson, 2010; West & Turner, 2015; Sarcona et al., 2020). Furthermore, a recorded video allows for playback, slow down and stop – this allows for a greater level of feedback clarity and understanding compared to

'real time' feedback (McCarthy, 2015; Sarcona et al., 2020). Video feedback can be stored online and replayed at students' convenience (Chen & Li, 2020; McCarthy, 2015).

Conversely, there are some disadvantages of using video feedback as a method of providing e-formative feedback. It takes a considerable amount to create a video, for this reason, video feedback is not immediate (Chidiebere, 2015; Sarcona et al., 2020). Delay in receiving e-formative feedback can slow down students' academic progress (Chidiebere, 2015; Sarcona et al., 2020). Another disadvantage of video feedback is poor communication skills. If an instructor cannot communicate clearly, there is a high possibility that a lot of students are going to misunderstand the e-feedback information (Chen & Li, 2020; McCarthy, 2015). This can interfere with students' learning from e-formative feedback.

The above discussion on audio and video feedback provided the definitions, benefits and challenges of using these feedback modalities. This study acknowledges that audio and video feedback may be powerful e-formative feedback modalities and may help enhance students' remote learning – in different contexts. However, the study specifically focused on first year students' experiences of receiving text-based formative feedback through a LMS during ERL.

2.6.2.3 *Text-based formative feedback*

Text-based feedback refers to written commentary provided to students on their work, either directly within assignments or through a separate document. Some common examples include feedback shared through learning management systems, track changes on papers, and handwritten notes (Henderson & Phillips, 2015). Providing text-based feedback is one significant responsibility on the side of instructors. This is because if instructors are to provide text-based feedback, they have to ensure that it facilitates academic improvement and motivation towards learning (Hyland and Hyland, 2006). During ERT&L, instructors could provide text-based formative feedback by typing comments on students' work on LMSs for students to access. Researchers have highlighted advantages of text-based formative feedback (Alqurshi, 2020; Ripoll et al., 2020; Shim & Lee, 2020). In the past, eligibility of handwriting has been a concern when

evaluating the clarity of handwritten feedback. The use of LMSs to provide text-based formative feedback during ERL means that students can easily read words used in feedback information without concern of illegible handwriting (Alqurshi, 2020). Text-based feedback allows for in-depth, individualised comments tailored to the student's work (Ajit, Malik & Pather, 2022). Instructors can provide granular, nuanced feedback on specific elements. Text-based feedback provides permanent record of feedback students can return to, as opposed to ephemeral verbal comments (Henderson & Phillips, 2015). Furthermore, this mode of e-feedback enables students to digest and process comments at their own pace. Additionally, text-based feedback promotes instructor-student interaction as it is easier for students to 'write-back' to their instructor about a comment and/or a section of their work (Alqurshi, 2020; Ripoll et al., 2020; Shim & Lee, 2020).

Like any other mode of providing formative feedback, text-based formative feedback has some disadvantages. Text-based formative feedback that uses a language and/or vocabulary that is too complex for students can overwhelm them and subsequently interfere with their learning from feedback (Taras, 2006; Fyfe, Rittle-Johnson & DeCaro, 2012; Alqurshi, 2020). Another disadvantage is that students may interpret text-based formative feedback incorrectly, which may consequently demotivate and constrain their remote learning (van der Kleij, 2019). This mode of feedback can feel impersonal compared to audio/video modes because it lacks nonverbal cues (Ajit, Malik & Pather, 2022). Furthermore, voluminous amount of text-based formative feedback may create unnecessary load on the limited working memory capacity of students and too little feedback comments may hinder remote learning. For this reason, it may be difficult to determine the correct amount of text-based formative feedback (van der Kleij, 2019). Additionally, text-based feedback requires strong writing skills to provide clear, constructive comments (Ajit et al., 2022).

Despite challenges associated with text-based e-formative feedback and the rise of multimedia feedback options, several studies indicate that this is a commonly used and preferred mode of giving e-formative feedback to students in South Africa, specifically during ERL (Jensen, Bearman & Boud, 2021; Padgett, Moffitt & Grieve, 2021). Literature on e-formative feedback has revealed that instructors and students prefer text-based

formative feedback over any other modes of feedback (Jensen, Bearman & Boud, 2021; Padgett, Moffitt & Grieve, 2021). A recent work by Ajit et al. (2022) revealed that over 60% of students chose text-based feedback as their preferred remote modality due to clarity, permanence, and ability to revisit anytime. In this regard, it is important for instructors to provide useful text-based formative feedback that helps improve students' remote learning and their academic performance. During ERT&L, provision of meaningful text-based formative feedback may inspire students to be more accountable for their own remote learning. Therefore, this study sought to provide an in-depth understanding of students' experiences of receiving text-based formative feedback received through a university's Canvas LMS during ERL. This may help in understanding students' e-formative feedback needs so that certain e-formative feedback practices are adopted and/ or modified to ensure students' academic success during the current circumstance of ERL.

2.7 FACTORS THAT INFLUENCE THE EFFECTIVENESS OF E-FORMATIVE FEEDBACK

Various factors can influence how students receive and potentially use e-formative feedback, specifically during ERL. In this section, I discussed some of the factors that influence the effectiveness of text-based formative feedback during ERL.

2.7.1 The comprehensibility of e-formative feedback

One of the purposes of e-formative feedback is to help students identify any gaps between their performance and targeted remote learning goals and determine how to close those gaps (Rokoczy et al., 2019). Therefore, for e-formative feedback to be effective, it should be comprehensible to the students (Selvaraj, Vishnu, Benson & Mathew, 2021). The literature revealed that effective text-based formative feedback contains information that students can comprehend (Sarcona et al., 2020; Selvaraj et al., 2021). Previous studies on e-formative feedback have documented that students' comprehensibility, or lack thereof, of text-based e-feedback, has an impact on what they choose to do with it (Mao & Lee, 2020; Sarcona et al., 2020; Selvaraj et al., 2021). When students comprehend e-formative comments about their work, they will likely accept them and use them to inform

their remote learning (Mao & Lee, 2020). On the other hand, the lack of comprehensibility of e-formative feedback is likely to contribute to the lack of engagement with and retention of feedback on the side of the students, which in turn interferes with productive remote learning (Sarcona et al., 2020; Selvaraj et al., 2021).

In the context of ERL, where there is a lack of direct interaction between students and instructors, comprehensibility of e-formative feedback is a significant factor that needs to be considered if students' remote learning is to be supported (Selvaraj, Vishnu, Benson & Mathew, 2021). During ERL, students do not get to 'see' their instructors face-to-face to ask for clarity about e-formative comments on their coursework (Selvaraj et al., 2021). Therefore, instructors have a responsibility to provide e-formative feedback that students can comprehend so that they can use it to inform their emergency remote learning. Students cannot use what they do not comprehend, thus when constructing e-formative feedback, instructors have to take into consideration factors that influence the comprehensibility of e-formative feedback (Sarcona et al., 2020; Selvaraj et al., 2021). It has been shown that language remains one of the biggest factors that influence the comprehensibility of e-formative feedback. Language used in e-formative feedback can either enable or constrain learning (Mao & Lee, 2020). A language that is too complex for students can confuse or overwhelm them and a language that is too critical can cause students to struggle to comprehend how to improve (Mao & Lee, 2020). For these reasons, one may say that e-formative feedback should be provided in a language that students can comprehend, especially during ERL, so that they can act upon it and use it to bridge the gap in their emergency remote learning (Sarcona et al., 2020; Selvaraj et al., 2021).

Although there is a consensus that to be effective, e-formative feedback should be comprehendible to students, a substantial number of studies revealed that many university students report that they receive e-formative feedback that they do not comprehend (Khlaif, Salha & Kouraichi, 2021; Rahiem, 2021). A qualitative case study conducted at a public university in Indonesia revealed that students disliked the e-formative feedback they received during ERL because it was difficult to understand (Rahiem, 2021). Students in this study criticised the e-formative feedback they received

on their coursework and stated that it was not only challenging to understand but also encouraged plagiarism and cheating as students did not understand what they should do to improve their academic performance (Rahiem, 2021). Although useful, the study appears to rely solely on students' perspectives, without incorporating insights from instructors or other stakeholders involved in the feedback process. Triangulating data from multiple sources could have provided a more comprehensive understanding of the factors contributing to the perceived lack of comprehensibility of e-formative feedback. Furthermore, while the study highlights students' dislike for the e-formative feedback they received due to its perceived lack of comprehensibility, it does not seem to delve deeper into the specific factors or reasons contributing to these perceptions. Despite its limitations, the study by Rahiem (2021) brings to light an important issue: the potential for e-formative feedback to be perceived as incomprehensible by students during ERL. This finding underscores the need for clear and understandable feedback to support student learning and academic integrity.

Similar findings were documented in a qualitative study that used semi-structured interviews with 34 participants to explore the factors influencing students' engagement in emergency remote learning (Khlaif, Salha & Kouraichi, 2021). Like Rahiem's (2021) study, this study found that students did not engage with (or use) the e-formative feedback that they received on their e-formative assessments because they did not understand it (Khlaif et al., 2021). Surprisingly, this study revealed that more female students did not engage with e-formative feedback during ERL, compared to male students, because they found the language used in feedback information too complex (Khlaif et al., 2021). The study provided valuable insights into the factors influencing the effectiveness of e-formative feedback during ERL (Khlaif et al., 2021). However, despite its usefulness, the study overlooked a crucial aspect: the potential differences in the comprehensibility of e-formative feedback between male and female students. While the study acknowledged the importance of clear and understandable feedback, it did not delve into the factors that might contribute to differential comprehension levels among students of different genders. This omission left a gap in the research, as it failed to explore the potential barriers or facilitative factors that could influence how male and female students perceive and understand the e-formative feedback they receive during ERL situations. Understanding

these factors is crucial, as comprehensibility of feedback is a key determinant of its effectiveness in supporting student learning and progress.

My current study aimed to bridge this gap by specifically examining what influences the comprehensibility of e-formative feedback during ERL from the perspective of first-year students in a selected teacher education university in South Africa. By including both male and female students' perspectives, my study sought to uncover the potential gender-specific factors that may impact the understandability of feedback in remote learning environments. Through a comprehensive exploration of students' experiences and perceptions, my study aimed to shed light on the challenges, barriers, or facilitators that contribute to differences in how students (male and female) comprehend the e-formative feedback they receive. This includes factors such as communication styles, language preferences, cultural influences, or specific learning needs that may vary across genders.

By explicitly addressing this gap, my study has the potential to provide valuable insights into tailoring e-formative feedback practices to enhance comprehensibility for both male and female students. This, in turn, can inform strategies and interventions aimed at ensuring that e-formative feedback is accessible, clear, and effective in supporting the learning needs of diverse student populations during ERL situations. Furthermore, by including perspectives from both genders, my study can contribute to a more inclusive and equitable understanding of the factors influencing feedback comprehensibility, potentially uncovering unique challenges or opportunities that may have been overlooked in previous research.

Overall, by tackling the comprehensibility of e-formative feedback from first-year students (male and female), my study aims to extend the existing knowledge base and provide a more nuanced understanding of how to optimise feedback practices during ERL, ultimately enhancing the learning experiences and outcomes for all students.

2.7.2 Timing of e-formative feedback

The timing of e-formative feedback on students’ assessments is a widely studied but poorly understood variable in the e-feedback process (Attali & van der Kleij, 2017). Researchers provide different views on the optimal timing for providing e-formative

feedback (Swart, Nielen & Sikkema-de Jong, 2019). The timing of feedback refers to “the juncture in the instructional sequence when students’ errors are addressed” (Quinn & Nakata, 2017, p. 59). Studies on the timing of e-formative feedback provide a comparison between immediate e-feedback (provided during or right after an assessment task) and delayed e-feedback (provided days after an assessment task) (Dempsey & Wager, 1988; Hattie & Timperley, 2007; Metcalfe, Kornell, & Finn, 2009; Mory, 2004; Shute, 2008). While some researchers argue that immediate feedback can help students evaluate and adjust their knowledge as they work on the task (Swart, Nielena & Sikkema - de Jonga, 2019), others assert that it might be better to provide feedback a few days after an assessment is administered in order to reduce students’ cognitive load - so that their limited working memory capacity can fully be deployed to create a mental model of the learning task (Kluger & DeNisi, 1996; Swart et al., 2019). Whether feedback is provided immediately, or is slightly delayed, one may argue that it is crucial for formative feedback to be provided when it is still useful to students – when students are still mindful of the content knowledge, topic or performance in question (Brookhart, 2008; Swart et al., 2019).

Timely feedback is a key component of the assessment process which can be useful in improving students’ learning (Evans, 2013; Gaertner, 2014; Weaver, 2006). However, the shift from traditional face-to-face learning to ERL has brought new challenges to the feedback process, which have had an impact on the timing of e-formative feedback (Srivastava, Jacob, Charles, Daniel, Mathew, Shanthi, Devamani, Mahasampath & Rabi, 2021). A recent study by Srivastava et al. (2021) explored the academic factors contributing to anxiety among first-year medical students during emergency remote learning (ERL). One of the key findings was that students experienced reduced motivation and increased stress due to the delayed delivery of e-formative feedback, which consequently interfered with their remote learning process. Although the majority of students (90.72%) found e-formative feedback useful during ERL, the untimely nature of its provision posed a significant challenge. Specifically, students reported receiving feedback too late to effectively act upon it, thereby hampering their ability to learn and progress in a remote setting.

While the study by Srivastava et al. (2021) highlighted the detrimental effects of delayed e-formative feedback on students' motivation, anxiety levels, and overall remote learning experience, it did not delve into the underlying reasons behind the untimely delivery of such feedback. This limitation left a gap in understanding the potential factors contributing to the delayed provision of e-formative feedback during ERL situations, which could inform targeted interventions and strategies to address this issue. My current study aimed to fill this gap by explicitly investigating the factors that impact the timing of e-formative feedback during ERL. By exploring students' experiences, my study sought to uncover the challenges, constraints, and considerations that lead to delays in feedback delivery in remote learning environments. Through a comprehensive examination of these factors, my study aimed to provide a more nuanced understanding of the issue, enabling the development of informed strategies and interventions to improve the timeliness of e-formative feedback during ERL scenarios. By addressing this limitation, my study has the potential to contribute valuable insights and solutions to mitigate the negative impacts of delayed feedback on students' motivation, anxiety levels, and overall remote learning experiences.

Despite the limitations identified, the study by Srivastava et al. (2021) is still a valuable contribution to the understanding of academic factors contributing to anxiety among first-year medical students during Emergency Remote Learning (ERL). The study underscores the crucial role that timely e-formative feedback plays in supporting students' motivation, reducing anxiety, and facilitating effective remote learning (Srivastava et al., 2021). By identifying delayed feedback as a significant contributing factor to student stress and reduced motivation, the study emphasises the need for educational institutions and instructors to prioritise the timely delivery of feedback, especially in remote learning environments (Srivastava et al., 2021). Furthermore, while the concept of timely feedback is widely recognised as important, the study provides quantitative evidence of its impact on students. For instance, the finding that 90.72% of students found e-formative feedback useful during ERL, yet experienced anxiety due to its delayed delivery, highlights the potential consequences of untimely feedback on student well-being and learning outcomes (Srivastava et al., 2021). However, the limitations of the study should be taken into consideration when interpreting the findings.

Another study that tackled the issue of the timing of e-formative feedback was conducted at a public funded medical college of Delhi, India (Khan, Patra, Vaney, Mehndiratta & Chauhan, 2021). This mixed methods study revealed that students were dissatisfied with the timing of e-formative feedback during ERL. Students in the study revealed that their instructors took too long to give them e-formative feedback and corrections of assessment tasks even though most of their assessments were multiple-choice questions (Khan et al., 2021). Students complained that this affected their understanding of topics and interfered with their remote learning (Khan et al., 2021). The study highlighted an important issue regarding the timing of e-formative feedback during ERL (Khan et al., 2021). However, while it shed light on students' dissatisfaction with the timing of e-formative feedback, like the study by Srivastava et al. (2021), it did not delve deeper into the underlying factors that influence the timeliness of such feedback during ERL situations. My current study aimed to close this gap by providing a more nuanced understanding of the issue, paving the way for informed strategies and interventions to improve the timeliness of e-formative feedback during ERL scenarios.

E-formative feedback, whether immediate or slightly delayed, should be provided when it is still useful to students (Brookhart, 2008). Students need to receive e-formative feedback while they are still mindful of the content knowledge, topic or performance in question (Khan et al., 2021; Srivastava et al., 2021). E-formative feedback that is provided when it is still useful to the students is more effective in enhancing learning than feedback provided when it is no longer useful (Srivastava et al., 2021; Swart et al., 2019). Drawing from this, one can conclude that e-formative feedback is most effective when it is received when students are still mindful of and still striving for the learning goal. Exploring students' experiences of receiving e-formative feedback during ERL may help uncover the optimal timing of e-formative feedback in order to encourage students to use it to inform their remote learning.

In summary, the timing of e-formative feedback emerges as a critical factor that can significantly constrain or enhance the effectiveness of assessment feedback. Timely e-formative feedback, defined as feedback provided when students are still actively engaged with the learning target and have sufficient time to act upon it (Brookhart, 2008),

is most conducive to supporting learning and fostering improved future academic performance (Swart et al., 2019). This principle holds particular relevance and importance in the context of ERL, where students face unique challenges and circumstances.

During ERL, the timely delivery of e-formative feedback becomes even more crucial. When feedback is provided promptly, while students are still immersed in the subject matter and the learning experience is fresh in their minds, they are better equipped to effectively utilise the feedback to identify areas for improvement, reinforce their strengths, and adjust their learning strategies accordingly. Moreover, in the challenging circumstances of ERL, where students may face additional barriers such as technological limitations, distractions, or emotional stressors, timely e-formative feedback can serve as a valuable lifeline, providing guidance, motivation, and a sense of connection with their instructors and peers. By receiving feedback in a timely manner, students can maintain momentum and engagement, mitigating the potential risks of disengagement or loss of focus that may arise in online learning environments.

Therefore, it is imperative for instructors and institutions to prioritise the timely delivery of e-formative feedback, recognising its pivotal role in supporting student learning, fostering academic growth, and cultivating a sense of community and support, particularly during the unique challenges posed by online learning experiences.

2.7.3 Amount of e-formative feedback

What is the correct amount of formative feedback? The answer to this question has been heavily debated (e.g., Ferris & Roberts, 2001; Goldstein, 2004; Montgomery & Baker, 2007; Truscott, 2004). Several studies have shown that providing the right amount of formative feedback is useful in improving learning (Montgomery & Baker, 2007), however, there is still an ongoing debate regarding the correct amount of text-based e-formative feedback. The amount of formative feedback information given to students on their assessment tasks should neither be scanty nor overwhelming (Brookhart, 2008). Effective formative feedback contains usable amount of information that students can absorb (Ramani & Krackov, 2012). A good amount of formative feedback is “not too much, not too little, but just right” (Brookhart, 2008, p. 13). It contains enough comments to ensure

that students understand what to do but not so much that the work has been done for them (Brookhart, 2008).

A meta-analysis study that investigated the effect of formative feedback on learning from text in conventional readers revealed that a voluminous amount of formative feedback creates an unnecessary load on the limited working memory capacity of the student, while the ‘correct’ amount of feedback can provide students with usable information that may enhance the learning process (Swart et al., 2019). One major limitation of this study is that the authors failed to take into consideration the differences in students’ reading levels because while voluminous feedback may create unnecessary cognitive load and impede learning from feedback, for some students, more feedback information could be a valuable help to integrate the information from the text into a coherent mental model (Swart et al., 2019). In other words, while the study by Swart et al. (2019) highlighted the potential cognitive load imposed by voluminous feedback on students' working memory capacity, a major limitation was the failure to consider individual differences in students' reading levels and abilities. The study did not account for the possibility that more extensive feedback could be beneficial for some students, particularly those with lower reading proficiency or struggling with comprehending the text material. For such students, additional feedback information might aid in constructing a coherent mental model and integrating information from the text more effectively.

My current study attempted to address this limitation by investigating the impact of e-formative feedback on students with varying reading levels and academic abilities. By including participants with diverse reading proficiencies and learning needs, my study explored how the amount of e-formative feedback influences cognitive load, comprehension, and learning outcomes for different student populations. Future research could examine the potential of adaptive and personalised e-formative feedback systems that can tailor the quantity and content of feedback based on individual students' reading levels, prior knowledge, and learning needs. By exploring the effectiveness of such adaptive feedback approaches, future research can provide insights into optimising e-formative feedback delivery to support diverse learners effectively.

A recent study conducted at the Open University (OU) in the United Kingdom on part-time undergraduate students revealed that students were unhappy with the amount of e-formative comments they received on their assessments (Shrestha, 2022). The study revealed that students who received low marks were particularly dissatisfied with the amount of e-formative feedback they received because it had little explanation or advice on how to improve the next assessment (Shrestha, 2022). Participants in this study reported that they did not find it helpful when their tutor did not explain in detail why they lost marks and what they could do differently in future assessments. One participant reported the following: "*...it just says 'Information is correct and appropriate', so I'm not really sure why I lost marks*" (Shrestha, 2022, p.12). Furthermore, the study revealed that students who received a voluminous amount of e-formative feedback were overwhelmed and did not know how to use the feedback information to inform their learning. One participant reported the following: "*I must admit, I looked at the first one and thought 'Oh my God, it's all red'*" (Shrestha, 2022, p.13). The participant reported that they did not think that voluminous formative comments on the first assignment would help with writing the second assignment because it was difficult to implement all those suggestions as per the formative feedback received (Shrestha, 2022).

The study by Shrestha (2022) highlights the dissatisfaction among part-time undergraduate students regarding the quality and quantity of e-formative feedback they received on their assessments. However, the study's focus on a specific institution and a particular student population (part-time undergraduates) may limit the generalisability of its findings to other educational settings and student demographics. Future research should aim to close this gap by investigating e-formative feedback experiences across a diverse range of institutions, academic programs, and student populations. By examining e-formative feedback practices in various educational contexts, future research can uncover potential variations in students' perceptions, preferences, and needs regarding the quality, quantity, and delivery of e-formative feedback.

Furthermore, future research should explore the perspectives and practices of instructors and feedback providers, which were not extensively addressed in the study by Shrestha (2022). By examining instructors' approaches to providing e-formative feedback, their

rationales for the amount and level of detail in their feedback, and their awareness of students' needs and preferences, future research can identify potential gaps or misalignments between instructors' intentions and students' experiences.

The discussion above highlights that the amount of e-formative feedback information can significantly influence the effect it has on student learning (Shrestha, 2022; Swart et al., 2019). It is crucial to strike a balance, as excessive or overwhelming feedback can be counterproductive. Instead, e-formative feedback should focus on providing concise and targeted comments that address important learning objectives, rather than presenting voluminous information that students may struggle to absorb (Shrestha, 2022). In the context of ERL, the appropriate amount of e-formative feedback becomes even more critical. During these challenging times, students heavily rely on formative feedback to guide their remote learning journey. As such, it is imperative to provide them with the right amount of feedback that they can effectively utilise to inform their learning strategies and address areas of improvement.

Furthermore, exploring students' firsthand experiences of receiving e-formative feedback during ERL can unveil valuable insights into the factors that influence how they engage with and utilise this feedback. By understanding their perspectives, instructors can adapt and refine their feedback practices to ensure that the e-formative feedback provided aligns with students' needs and supports their learning effectively. This information is particularly valuable in the ERL context, where students may face unique challenges and barriers that could impact their ability to process and apply feedback effectively. By gaining a deeper understanding of their experiences, instructors can adopt or modify their feedback approaches, ensuring that the e-formative feedback delivered is tailored, focused, and designed to maximise its impact on student learning and academic success in the remote learning environment.

2.8 A REVIEW OF STUDENTS' EXPERIENCES OF RECEIVING E-FORMATIVE FEEDBACK DURING EMERGENCY REMOTE LEARNING

Constructing and delivering effective e-formative feedback on students' assessments is viewed as a powerful educational tool by both instructors and students (Forsythe &

Johnson, 2017; Moffitt, Padgett & Grieve, 2020). In the current circumstances of COVID-19 and ERT&L, formative feedback is delivered remotely due to the transactional distance between instructors and students (Moffitt et al., 2020). Students' experiences of receiving e-formative feedback during ERT&L have been studied in various disciplines; however, most of these studies were done overseas with little reference to the South African context. Below is a thematic review of international and some local literature on students' experiences of receiving e-formative feedback during ERL.

2.8.1 Accessibility of e-formative feedback

The accessibility of e-formative feedback has been given great attention, specifically in the context of ERL. Accessibility, in this regard, refers to the degree to which e-formative feedback is receivable and understandable by all students whatever their locations, languages, physical and mental aptitudes (Huda, Kabir & Siddiq, 2020). The swift move to ERT&L forced instructors to rely on LMSs such as Microsoft Teams, Google Classroom, Zoom, and E-mail as means to deliver e-formative feedback to students, which raised the issue of accessibility. Studies that tackled the issue of accessibility of e-formative feedback revealed that technical problems (e-formative feedback platform and internet connectivity) and availability of technological devices were major challenges that influenced the accessibility of formative feedback during ERL (Butucha, 2020; Maila, 2020).

A quantitative study conducted at a selected university in Africa through online Google Forms revealed that most students found it difficult to access e-formative feedback during ERL (Butucha, 2020). The study documented that 73% of the study participants indicated that a lack of reliable internet connectivity was the main challenge they faced during ERL. Internet connectivity was an issue for students in this study because, without it, they could not access e-formative feedback (Butucha, 2020). The study also documented that 58.5% of the study participants indicated that they could not access formative feedback because they did not have personal laptops and/or desktops and 15.6% of the participants who had reliable technological devices lacked skills in handling technology which constrained their access to formative feedback (Butucha, 2020). Drawing from these findings, it may be said that a lack of reliable internet connectivity, resources such as personal

laptops/desktops and technological skills and competence can interfere with the accessibility of e-formative feedback during ERL (Butucha, 2020).

While the quantitative study by Butucha (2020) provided valuable insights into the challenges students faced in accessing e-formative feedback during emergency remote learning (ERL), there are some limitations and areas for further exploration. First, relying solely on online Google Forms may have introduced sampling bias, as students without reliable internet access could have been underrepresented in the study. Additionally, the study's focus on issues with internet connectivity, a lack of devices and technological competence fails to capture the multifaceted nature of students' e-feedback experiences, which could be influenced by various pedagogical and personal factors. To gain a more comprehensive understanding, my current study employed semi-structured interviews and focus group discussions as data collection methods which allowed for an in-depth exploration of the contextual factors, perceptions, and strategies employed by students in accessing and engaging with e-formative feedback during ERL.

A study similar to Butucha (2020) was conducted at a selected university in Indonesia (Maila, 2020). This qualitative study involved 80 student participants from the Social Science Education Programme at a public university in Jakarta (Maila, 2020). This study, whose data was generated through diaries, essays and focus group discussions using the Google Meet application, revealed that technological disruption and expensive internet costs were the main challenges in accessing the e-learning platforms that facilitated the delivery of formative feedback to students (Maila, 2020). Similar to the students in Butucha's (2020) study, students in Maila's (2020) study reported that they had limited access to e-formative feedback due to unreliable internet connectivity (Maila, 2020). Moreover, students in the study reported that they could not access e-formative feedback due to the high internet costs that hindered them from accessing the university's Canvas LMS through which formative feedback was communicated to them (Maila, 2020). Additionally, students in the study reported that they were already accustomed to face-to-face formative feedback discussions and claimed that they could not access e-formative feedback received through the university LMS because their instructors were unavailable to help them understand e-feedback comments (Maila, 2020).

While the qualitative study by Maila (2020) provided rich insights into the challenges faced by students in accessing e-formative feedback during the technological disruptions caused by the pandemic, it had a limited scope and context-specific findings. The study focused solely on students from the Social Science Education Programme at a single public university in Jakarta, which may not represent the diverse experiences and contexts of students across different disciplines, institutions, and regions. Additionally, by relying primarily on diaries, essays, and focus group discussions, the study may have failed to capture the nuanced and evolving nature of students' experiences as they adapted to the changing circumstances of emergency remote learning over time. My current study attempted to address gaps in Maila's (2020) study by employing a more comprehensive and longitudinal approach to investigating students' e-formative feedback experiences. By incorporating multiple data collection methods, including one-on-one interviews (which Maila did not use), my study triangulated the findings and capture the dynamic interplay of factors influencing students' engagement with e-formative feedback over an extended period. This longitudinal perspective is crucial, as students' experiences and needs may have evolved as they adjusted to the demands of ERL. Ultimately, my study's findings can inform tailored recommendations and best practices for institutions to enhance the accessibility, effectiveness, and equity of e-formative feedback practices across diverse educational settings.

Similar challenges of internet connectivity, access to technological devices and technological competence were found in a study conducted at The State University of Zanzibar (SUZA) (Ismail, Yunus & Gallagher, 2020). This case study revealed that although the university already had its working Canvas LMS before the pandemic, students still faced challenges with internet connectivity, access to personal technological devices and technological competence during ERL (Ismail et al., 2020). Most students in the study reported that they could not access the university's Canvas LMS through which e-formative feedback was delivered because they were technophobic and had limited skills in using Information and Communication Technologies (ICT) for learning (Ismail et al., 2020).

Finally, the analysis of accessibility, including access to e-formative feedback, during ERL revealed that 50% of students worldwide did not have household computers and 43% did not have household internet (UNESCO, 2020c). The same findings revealed that in sub–Saharan Africa, 89% of students did not have the right knowledge to use home computers, 82% did not have internet access, and 11% were not covered by mobile networks (UNESCO, 2020c; Butucha, 2020). Without access to technological devices and internet connectivity, students could not access learning material, e-assessments and e-formative feedback during ERL.

The preceding findings corroborate that access to e-formative feedback during ERL emerged as a significant challenge for university students worldwide. The discussed research findings demonstrate that numerous scholars have investigated the issue of accessibility, noting that a substantial number of university students could not access e-formative feedback during ERL due to various barriers, including lack of internet connectivity, limited availability of technological devices, and inadequate technological skills to navigate Learning Management Systems (LMSs).

However, despite the substantial volume of research exploring this phenomenon, potential solutions to address these accessibility challenges remain largely undocumented. This gap in the literature highlights the need for further investigation and the development of practical recommendations to alleviate the obstacles that hinder students' access to e-formative feedback during ERL. Recognising this gap, my goal in this study was to contribute to closing this research lacuna by providing evidence-based recommendations that can potentially mitigate the challenges impeding students' access to e-formative feedback in online learning environments. By proposing actionable strategies grounded in the findings and insights gained from this research, I aimed to empower educational institutions and instructors with practical approaches to enhance the accessibility and effective delivery of e-formative feedback, ultimately supporting student learning and success in the dynamic landscape of online education.

2.8.2 Specificity of e-formative feedback

A substantial amount of literature has revealed that for formative feedback to be effective, it should specify students' progress as well as how the students should proceed (Brookhart, 2008; Hattie & Timperly, 2007). In other words, formative feedback should be specific enough to help students identify how they are doing as well as what to do next to meet the learning goals (Brookhart, 2008; Carless, 2015). Studies on formative assessment revealed that instructors tend to give students standardised e-formative feedback in the form of general comments like "good work, excellent, and study relevant course material", to mention a few. (Vu, Harbaugh, De Roo, Biesterveld, Gauger, Dimick & Sandhu, 2020). The use of standardised comments is more common during ERT&L, where most instructors have not received adequate training to use LMSs to provide detailed e-formative feedback (Vu et al., 2020; Chaiklin, Hassneiah, Issenberg & Taldone, 2021). An exploratory qualitative study conducted at the University of Michigan on surgical students' experiences of receiving formative feedback revealed that students received feedback that did not specify their progress and how to improve (Vu et al., 2020). Participants in this study reported that the feedback they received was overly general and did not specify the strengths and weaknesses of their responses to assessments. One of the participants in this study reported the following: "*I get feedback comments like* '*Good job!*' *and I am thinking 'Come on… tell me something else'*" (Vu et al., 2020, p. 47). This participant desired formative feedback that specified parts of the assessment that were well done as well as those that needed improvement (Vu et al., 2020).

The findings in the above study also revealed that students received formative feedback that was not specific to the tasks completed and their performance in those tasks (Vu et al., 2020). Participants in this study reported that the feedback they received did not focus on their leadership skills, even though most assessments tested their leadership skills (Vu et al., 2020). The study participants cited prioritisation of clinical and technical learning over leadership development in medical education (Vu et al., 2020). The study concluded that feedback that lacks specificity is unlikely to support learning (Vu et al., 2020).

The exploratory qualitative study by Vu et al. (2020) at the University of Michigan provided valuable insights into surgical students' experiences receiving formative feedback. However, the study's focus on a specific cohort of medical students in a single institution limits the generalisability of its findings to other disciplinary contexts and educational settings. Additionally, the study primarily relied on student perceptions and did not explore the perspectives of instructors or examine the actual feedback artifacts provided to students. The study could be improved by adopting a multi-disciplinary approach and triangulating data from various sources, including students, instructors, and analysis of e-formative feedback artifacts. By investigating e-formative feedback experiences across different academic disciplines, the study could have uncovered potential disciplinary variations in feedback practices, perceptions, and needs. Future research should aim to analyse the actual e-formative feedback provided to students, in order to objectively assess the quality, clarity, and specificity of the feedback, complementing the subjective perceptions of students and instructors.

A similar study was conducted at a selected university in the United States (Chaiklin, Hassneiah, Issenberg & Taldone, 2021). This qualitative study involved 39 second-year student participants from the Medical Education Programme and due to the COVID-19 pandemic, data was collected through an online focus group discussion via Zoom video meeting (Chaiklin et al., 2021). Like the study by Vu et al. (2020), this study revealed that the formative feedback received by students was not specific to the skills tested by the assessment. One participant in this study noted the following: “I prefer to know straightforwardly what I did wrong. Like you’re doing this wrong, do it better…” (Chaiklin et al., 2021, p. 263). The findings in this study revealed that students sought feedback that was specific enough to help them identify the strengths and weaknesses of their responses to assessments, and guidelines of what to do better next time (Chaiklin et al., 2021). Although this study documented students’ experiences of receiving formative feedback, it did not provide a critical discussion of students’ subsequent actions to receiving feedback. My current study aimed to close this gap by not only exploring how students received e-formative feedback, but also how they responded to e-formative feedback during ERL.

The qualitative study by Chaiklin et al. (2021) at a university in the United States corroborates the findings of Vu et al. (2020), highlighting medical students' dissatisfaction with the lack of specificity and actionable guidance in the formative feedback they received. However, this study shares similar limitations, as it focuses exclusively on a specific cohort of medical students within a single institutional context. Additionally, relying solely on online focus group discussions may have limited the depth and richness of data collected, as students' responses could be influenced by factors such as the online modality, group dynamics, and potential self-censorship. My current study attempted to address these limitations by adopting a mixed-methods approach that combines qualitative data from student interviews and focus group discussions. By including participants with diverse academic profiles, my study provides a more comprehensive understanding of e-formative feedback experiences across students with varying academic competencies.

Furthermore, to improve their studies, Chaiklin et al. (2021) and Vu et al. (2020) could have explored the perspectives and practices of instructors and feedback providers. By examining instructors' approaches to providing e-formative feedback, their perceptions of students' needs, and the institutional support and training available for effective feedback practices, the studies could have uncovered potential gaps or misalignments between instructors' and students' expectations and experiences. Additionally, the studies could have delved deeper into the role of feedback literacy – the ability to give, receive, and utilise feedback effectively – for both students and instructors. By investigating the strategies and training opportunities available to develop feedback literacy skills, the studies could have informed the development of targeted interventions and support mechanisms to enhance the quality and effectiveness of e-formative feedback practices.

Although my current study focuses only on students’ experiences with e-formative feedback, it contributes to a more comprehensive understanding of e-formative feedback experiences and provides evidence-based recommendations for improving the specificity, actionability, and overall effectiveness of e-formative feedback that may be applied across diverse educational contexts.

2.8.3 Emotionality of e-formative feedback

Formative feedback allows students to obtain information about their performance and how they can improve their future performance (Ryan & Henderson, 2018). However, literature has revealed that students are most likely to reject or ignore e-formative feedback if it evokes negative emotional responses (Ryan & Henderson, 2018). Studies on students' emotional responses to e-formative feedback revealed that most students experience negative emotional responses when receiving e-formative feedback, more so during ERL, which consequently interferes with their remote learning (Lipnevich, Murano, Krannich & Goetze, 2021).

A quantitative study conducted at a public Northeastern university in the USA whose participants were 464 students enrolled in the introductory psychology course showed that when students receive formative feedback, they naturally experience some sort of emotional reaction that can vary depending on the stakes of the feedback situation, relationship with the feedback-giver, and a variety of other factors (Lipnevich et al., 2021). This study found that when students received marks, as opposed to written formative comments, they experienced negative emotions, including distress, upset and being scared, hostile, ashamed, nervous, and afraid (Lipnevich et al., 2021). The findings in this study revealed that there was a decrease in students' pride when marks were given compared to written formative feedback (Lipnevich et al., 2021). These findings suggest that text-based feedback may be beneficial to students and therefore elicit positive emotions. Although useful, the study did not provide a critical discussion on whether or not higher marks would elicit the same negative emotions, thus ruling out a more nuanced discussion. My study aimed to close this gap as data was obtained from first-year students with varying academic performance in order to get a holistic understanding of their experiences of receiving e-formative feedback and how they use it to inform their learning during ERL.

A similar study was conducted at an Iranian university on students' emotional responses to e-formative feedback and subsequent actions upon receiving e-formative feedback (Papi & Khajavy, 2021). Data for this study was collected from 324 students learning English as a foreign language. The findings in this study revealed that students who

demonstrated positive emotions (enjoyment) when receiving formative feedback used it to inform their learning while those who demonstrated negative emotions (anxiety) did not use feedback in their learning (Papi & Khajavy, 2021). The study provided valuable insights into the relationship between students' emotional responses and their subsequent actions in response to e-formative feedback. However, it did not clearly identify the specific triggers or sources of these emotional responses. Specifically, the study did not distinguish whether students' emotional responses (such as enjoyment or anxiety) were primarily evoked by the marks or grades they received or by the formative comments and feedback provided alongside the marks. In other words, the study did not disentangle the emotional reactions caused by the evaluative or summative aspect of the feedback (e.g., the numerical or letter grade) from the emotional responses elicited by the formative or developmental aspects of the feedback (e.g., the written comments, suggestions, or guidance for improvement). This distinction is important because students' emotional reactions and subsequent actions may differ depending on whether their emotions were primarily driven by the marks they received or by the formative feedback comments themselves. For example, a student who feels anxious or disappointed after receiving a low mark may respond differently to the feedback compared to a student who feels anxious or discouraged due to the tone, clarity, or perceived usefulness of the formative comments provided.

By not distinguishing the specific triggers of students' emotional responses, the study by Papi and Khajavy (2021) leaves a gap in understanding the nuanced interplay between students' emotional reactions, the marks they receive, and the formative feedback comments provided to them. My current study aimed to address this gap by explicitly investigating the factors that evoke students' emotional responses to e-formative feedback. This involved exploring students' perceptions and reactions to the marks or grades received, as well as their emotional responses to the formative comments and feedback itself, and how these different factors influenced their subsequent actions and engagement with the feedback. By disentangling the sources of students' emotional responses, my current study provides a more nuanced understanding of the emotional dimensions of e-formative feedback experiences and inform strategies for optimising

feedback practices to promote positive emotional responses and effective utilisation of feedback.

Another similar study was conducted at a comprehensive university in Nepal as part of a larger project on supervisory feedback on master's theses (Bastola & Hu, 2021). Data for this study was collected from 434 student participants (master's students) in four disciplines English Education, English Studies, Physics, and Engineering through an online questionnaire (Bastola & Hu, 2021). Participants in this convergent mixed-methods study reported that their supervisors' comments on their dissertations were the source of their negative emotional experiences of formative feedback. Expressions like "disappointment, frustration, bitter experience, insulted, worried, scolded, feeling panic, bored, terrible, horrible, awful" were used by the study participants to describe their negative experiences of receiving formative feedback from their supervisors (Bastola & Hu, 2021, p.5). Students in this study felt upset when their supervisors added "new and difficult" requirements, "asked totally irrelevant questions", "gave negative comments in an impolite way", "screamed at [them] using bitter words", and "embarrassed" them (Bastola & Hu, 201, p.5). Drawing from these findings, it may be said that students' negative emotions towards formative feedback are generally evoked when they interpret it as an unfavorable evaluation of their writing proficiency (Yu, Geng, Liu & Zheng, 2021). Feedback-givers should take this into consideration and provide balanced and encouraging feedback (Bastola & Hu, 2021). Harsh, scolding and humiliating comments on students' coursework hinder engagement with feedback and subsequently interfere with productive learning. In the context of ERL, students rely heavily on formative feedback to inform their learning. Therefore, they should receive guiding and scaffolding feedback that does not make them feel neglected and discouraged.

The convergent mixed-methods study by Bastola and Hu (2021) provides valuable insights into the negative emotional experiences of master's students across various disciplines when receiving e-formative feedback from their dissertation supervisors. However, the study's reliance on self-reported data from an online questionnaire may have limitations in capturing the full depth and nuances of students' emotional experiences and the specific factors contributing to these negative emotions. My current

study attempted to address this gap by employing a more comprehensive and triangulated approach to data collection. By combining in-depth semi-structured interviews and focus group discussions with students, my study attempted to provide a more holistic understanding of the factors that contribute to negative emotional experiences during e-formative feedback processes.

To address the gaps in Bastola and Hu's (2021), future research should aim to examine supervisors' feedback practices, communication styles, and their awareness of the potential emotional impact of their feedback This could uncover potential misalignments or gaps between supervisors' intentions and students' perceptions. Additionally, future research could investigate the institutional and disciplinary cultures surrounding feedback practices, as these may influence the norms and expectations surrounding the delivery and reception of e-formative feedback. By examining the role of disciplinary norms, power dynamics, and institutional support structures, future research can identify potential systemic factors that contribute to negative emotional experiences during e-formative feedback processes.

2.8.4 Valence of e-formative feedback

Formative feedback is a key factor in student academic attainment, and when well-constructed, can lead to improved academic performance (Hattie & Timperley, 2007; Lipnevich et al., 2021), in both physical and remote learning environments (Khan et al., 2021; Khlaif et al., 2021; Rahiem, 2021; Shrestha, 2022). Studies have evaluated the quality of formative feedback by assessing feedback valence – that is, whether feedback comments were positive, negative or balanced (a mix of positive and negative) as this can mediate the effectiveness of feedback (Durksen, 2014; Gielen & DeWever, 2015; Prins et al., 2006). Studies on the valence of e-formative feedback revealed that positive feedback comments encourage students and motivate them to learn whilst negative feedback discourages students and then reduces their learning motivation (Lipnevich et al., 2021; Zhang & Hyland, 2018). A study conducted by Zhang and Hyland (2018) documented that feedback that directly pointed out students writing mistakes (negative comments) discouraged their engagement and as a result, students paid little attention to the revising process. These findings were supported by Lipnevich et al. (2021) who found

that negative, overly harsh, and global rather than specific and empathic feedback comments led to a decrease in students' self-efficacy. Drawing from the findings in these studies, one may say that an excessive amount of negative e-formative feedback comments has the potential to reduce students' confidence in learning and can lead to a loss of self-confidence (Lee & Evans, 2019).

The studies by Zhang and Hyland (2018) and Lipnevich et al. (2021) highlight the potential detrimental effects of negative, harsh, and overly general feedback comments on students' engagement, motivation, and self-efficacy. However, these studies primarily focused on feedback in the context of student writing and may not fully capture the nuances and complexities of e-formative feedback experiences across diverse academic disciplines and learning contexts. My current study contributes to closing this gap by investigating students' e-formative feedback experiences across different types learning activities. My study provides a more comprehensive understanding of the impact of negative and positive e-feedback comments on students' engagement, motivation, and self-efficacy.

Although the studies by Zhang and Hyland (2018) and Lipnevich et al. (2021) provide valuable insights, future research should aim to explore the role of individual differences, such as students' feedback literacy, goal orientation, and cultural backgrounds, in shaping their perceptions and responses to different types of feedback comments. This can inform the development of more personalised and culturally responsive feedback strategies that cater to the diverse needs and preferences of learners. Additionally, future research could investigate institutional practices and support mechanisms aimed at developing feedback literacy and emotional intelligence among both students and instructors. By exploring training opportunities and interventions designed to enhance the ability to give, receive, and utilise feedback effectively, as well as manage emotional responses to feedback, future research could inform evidence-based recommendations for fostering a constructive feedback culture and promoting positive learning experiences.

Another study that tackled the issue of valence of e-formative feedback was conducted at 11 universities in the Chinese mainland, a typical English as a Foreign Language (EFL) context where the teaching and learning of English writing are included in the curricula of

primary, secondary, and higher education systems (Yu, Geng, Liu & Zheng, 2021). Most students in this study reported that they received negative e-formative feedback that focused on minor or simple writing problems as opposed to comments targeted at in-depth writing issues (Yu et al., 2021). Students in the study argued that the e-formative feedback they received was limited in diagnosing substantial problems in their writing and made it difficult for them to revise these problems, which negatively impacted their learning (Yu et al., 2021). Furthermore, students in the study identified the differences between the feedback they received in high school and university. They reported that teachers in high school did not give negative comments but suggestions on how to improve. However, in university, their instructors point out their writing errors thereby making them feel embarrassed and humiliated (Yu et al., 2021). Although useful, this study only focused on the negative influences of feedback on Chinese EFL student writers and their responses to such influences. A focus on both positive and negative influences of feedback could have provided a more nuanced discussion, thus the current study aimed to close this gap in research.

The study by Yu et al. (2021) provides valuable insights into the prevalence of negative and surface-level e-formative feedback in the context of English writing instruction across various educational levels in China. However, the study's focus on a specific domain (English writing) and a particular cultural context (Chinese universities) may limit the generalizability of its findings to other academic disciplines and educational settings. Future research can contribute to closing this gap by investigating e-formative feedback experiences across a diverse range of academic disciplines and cultural contexts. By examining e-formative feedback practices in various subject areas and educational institutions, future research can uncover potential disciplinary and cultural variations in feedback norms, perceptions, and preferences.

Furthermore, future research can delve deeper into the factors contributing to the observed differences in feedback practices between high school and university levels, as highlighted by participants in Yu et al. (2021). By exploring the institutional policies, instructor training, and assessment practices at different educational levels, future research can provide insights into the systemic factors that shape feedback approaches

and potentially contribute to negative experiences or misalignments in students' expectations.

2.9 E-FORMATIVE FEEDBACK CHALLENGES ON LEARNING OUTCOMES

The literature reviewed above revealed a number of significant challenges relating to e-formative feedback faced by students during Emergency Remote Learning (ERL). These challenges included issues with accessibility, language barriers, timing, specificity, clarity, amount, and valence of feedback (Bastola & Hu, 2021; Lipnevich et al., 2021; Yu et al., 2021). Each of these aspects played a crucial role in shaping students' engagement with feedback and, consequently, their learning outcomes. As universities rapidly transitioned to online platforms, these challenges became particularly pronounced, potentially exacerbating existing educational inequalities and creating new obstacles to effective learning. Understanding the impact of these challenges on learning outcomes is essential for developing strategies to enhance the effectiveness of e-formative feedback in remote and online learning environments. The following discussion examines how each of these aspects of e-formative feedback influenced student learning and academic performance during ERL.

Accessibility of e-formative feedback emerged as a significant challenge during ERL, with profound implications for learning outcomes. Students who struggled to access feedback due to technological barriers or unfamiliarity with online platforms were at a disadvantage in terms of their ability to improve and progress in their learning (Mahmood, Zakariya & Boukadi, 2020). This limited access could lead to a widening achievement gap, as students who could easily access feedback had more opportunities to reflect on their work and make necessary improvements (Hodges et al., 2020). The language barrier in e-formative feedback presented another crucial challenge. In diverse educational settings, where students may not be native speakers of the language of instruction, complex or jargon-heavy feedback could impede understanding and limit the effectiveness of the feedback (Hyland & Hyland, 2019). This linguistic inaccessibility could result in misinterpretation of feedback or, worse, complete disengagement from the feedback process, potentially stunting academic growth and development of critical thinking skills (Mahoney et al., 2019).

The timing of feedback delivery also played a critical role in shaping learning outcomes. Delayed feedback, often a result of increased instructor workload during ERL, could reduce its relevance and impact (Winstone & Carless, 2020). When feedback is not timely, students may have moved on to new topics or assignments, limiting their ability to apply the feedback effectively. This delay could lead to missed opportunities for improvement and potentially reinforce misconceptions or errors in subsequent work (Wisniewski et al., 2020). The specificity and clarity of e-formative feedback directly influenced its utility for student learning. Vague or overly general feedback failed to provide students with actionable insights for improvement (Carless & Boud, 2018; Bastola & Hu, 2021). Without clear, specific guidance, students might struggle to identify areas for development, potentially leading to stagnation in their learning progress. Conversely, highly specific and clear feedback could enhance students' ability to self-regulate their learning, leading to improved performance over time (Nicol & Macfarlane-Dick, 2006).

The amount of feedback provided also impacted learning outcomes. While detailed feedback can be beneficial, an overwhelming amount of information could lead to cognitive overload, particularly in the already challenging context of ERL (Sweller et al., 2019). Students might struggle to process and act upon excessive feedback, potentially resulting in selective engagement or complete disengagement from the feedback process (Winstone et al., 2017). Finally, the valence or tone of feedback significantly influenced students' receptivity and emotional response to it. Overly critical or negatively framed feedback could demotivate students, potentially leading to decreased self-efficacy and engagement with learning (Pitt & Norton, 2017). Conversely, constructive feedback that balanced critique with encouragement could foster a growth mindset, motivating students to persist in their learning efforts despite the challenges of ERL (Dweck, 2015).

These various aspects of e-formative feedback – accessibility, language, timing, specificity, clarity, amount, and valence – collectively shaped the effectiveness of feedback in supporting learning during ERL. The challenges in these areas could potentially lead to missed learning opportunities, reinforcement of misconceptions, demotivation, and widening achievement gaps. Addressing these challenges is crucial for maximising the potential of e-formative feedback to support student learning and

achievement in remote and online learning environments. This study provides evidence-based strategies and recommendations to address these challenges in Chapter 7.

2.10 IMPLICATIONS OF THE LITERATURE

The literature review has discussed the origin and impact of Emergency Remote Learning (ERL) during the COVID-19 pandemic, including the rapid shift to online delivery and changes to assessment practices. Relevant concepts such as e-formative assessment and e-formative feedback were defined, along with a discussion of feedback accessibility, timing, specificity, emotionality, and other influencing factors.

Prior studies exploring students' experiences of receiving e-formative feedback in remote contexts were reviewed. Common challenges were identified, including issues accessing feedback, a lack of feedback specificity, negative emotional reactions, and difficulty applying feedback to self-regulated learning. While these studies provide useful insights, gaps remain, especially in the South African context. Little research has focused specifically on first-year student teachers and their perspectives. This highlights the need for qualitative, context-specific data to further illuminate students' experiences and needs regarding e-formative feedback during ERL.

This study aimed to address these gaps by employing a qualitative case study methodology to deeply explore how first-year student teachers experience and respond to e-formative feedback in South Africa. Analysis through Social Constructivism, Feedback Intervention Theory (FIT) and Feedback Design Theory (FDT) frameworks helped provide a deeper understanding of the factors shaping students' feedback interpretations and use during remote learning. Additionally, the study identified and proposed strategies to address the e-formative feedback challenges faced by students. The findings are intended to offer practical and theoretical contributions to improving e-feedback strategies and dialogue in higher education. Importantly, while this research was conducted in the context of Emergency Remote Learning (ERL), its insights remain highly relevant in the post-ERL era, particularly as institutions transition to and refine their approaches to blended learning. By providing valuable information applicable to ongoing

blended learning environments, this study contributes to the evolution of feedback practices in higher education beyond the immediate context of ERL.

2.11 CONCLUSION

In this chapter, I provided a comprehensive review of the literature relevant to my study. By critically examining the existing body of research, I identified gaps and areas that warranted further investigation, thereby establishing the significance and relevance of my study. The literature review served as a foundation upon which my research inquiry was built, highlighting the need for an in-depth exploration of first-year students' experiences of receiving e-formative feedback during ERL.

Building upon this foundation, the subsequent chapter delves into the theoretical frameworks that guided and informed my study. These theoretical lenses provided a structured and robust approach to examining the multifaceted phenomenon of e-formative feedback in the context of ERL. The chapter discusses the selected theoretical frameworks in detail, elucidating their relevance, underlying assumptions, and applicability to the research objectives. By grounding the study within these established theoretical frameworks, I aimed to gain a comprehensive and nuanced understanding of first-year students' experiences in receiving e-formative feedback on their e-formative assessments during the ERL. The theoretical perspectives served as analytical tools, facilitating the interpretation and contextualisation of the research findings within a broader scholarly discourse.

CHAPTER 3 THEORETICAL FRAMEWORK

"*Feedback constitutes a powerful tool to help develop students' self-regulatory capacities*" (Theobald & Bellh¨auser, 2022, p. 3)

3.1 INTRODUCTION

In the previous chapter, I provided a review of local and international literature relevant to this study. In this chapter, I discuss the theoretical frameworks I used to explore first-year students' experiences of receiving e-formative feedback during ERL. A theoretical framework is defined as a way in which researchers report, question, and develop thoughts or theories on what possible answers could be (Creswell, 2012). A theoretical framework can influence how researchers design their study, and how they collect and analyse the data for their study (Creswell, 2012). This chapter outlines the theoretical lenses used to investigate the research questions for this study, which are:

1. What are first-year students' experiences of receiving e-formative feedback on e-formative assessment during ERL?
2. How do first-year students respond to the e-formative feedback they receive during ERL?
3. Why do first-year students respond to e-formative feedback the way they do during ERL?

To explore these experiences and behaviors related to first-year student teachers' responses to e-formative feedback in the context of ERL, I employed an integrated theoretical framework that draws upon the following perspectives:

- Social Constructivism
- Feedback Intervention Theory
- Feedback Design Theory

The integration of technology in education has opened avenues for innovative assessment and feedback practices. E-formative assessment and subsequent e-formative feedback have emerged as powerful tools for enhancing student learning, particularly in online and blended learning environments like Emergency Remote

Teaching and Learning (ERT&L). However, understanding how students respond to and make sense of this feedback remains crucial for maximising its effectiveness. This chapter explores three theoretical frameworks - Social Constructivism, Feedback Intervention Theory (FIT), and Feedback Design Theory (FDT) - to provide a comprehensive lens for examining first-year students' experiences of receiving e-formative feedback in ERL setting.

3.2 Social Constructivism: Laying the Foundational Lens

3.2.1 Background of Social Constructivism theory

Social Constructivism has its roots in the seminal work of seminal developmental psychologists like Lev Vygotsky, Jean Piaget, Jerome Bruner and Albert Bandura in the early to mid-1900s (Liu & Matthews, 2005). They pioneered constructivist learning theories that departed from prevailing behaviorist and psychoanalytic models of their time by emphasising the primordial importance of social interaction and culture in enabling the development of human intelligence and higher psychological functions (McLeod, 2014).

Vygotsky is considered the seminal figure who originally introduced Social Constructivism thought, highlighting how all uniquely human higher mental processes necessarily originate in, emerge from, and must be fundamentally explained as evolutionary products of collaborative interpersonal social interactions situated within particular cultural-historical contexts (Vygotsky, 1978; Frawley, 1997). Vygotsky specifically proposed that cognitively, young children are inherently primed to appropriate and internalise the external social activities and cultural tools of more competent community members through a process of ongoing participated cultural apprenticeship (Scott & Palincsar, 2013).

In his theories of cognitive development, Vygotsky strongly integrated seminal ideas from Marx and Engels regarding the dialectical nature of human consciousness, purposeful behavior and emerging personality as fundamentally shaped by the pragmatics of widespread cultural mediation within practical human social activity itself (Wertsch, 1985; Ratner, 2019). He also drew central insights from contemporaneous Gestalt perceptual psychology as well as current interdisciplinary theories within Russian psychology

focused on reconstituting the origins and mechanisms of integrated human psychological functions (Yasnitsky, 2018).

Others like eminent educational theorist Jerome Bruner built upon Vygotsky's cultural-historical psychological foundations. Bruner further emphasised that rather than passively receiving knowledge, learning inherently necessitates an active process whereby learners dynamically construct and reconstruct new ideas, models, frameworks and values based on the scaffolding support of instructors and through cooperative social interactions with more competent peers in contextual problem-solving scenarios (Bruner, 1961; Harland, 2003). His translated writings and research helped further shift psychological focus squarely towards the internal lived world of meaning-making experiences by individual learners in intrinsically interpreting external cultural factors rather than limiting analysis to environmental stimuli responses (Bruner, 1990).

3.2.2 Why the Social Constructivism theory?

In recent decades, core Social Constructivist principles have been widely discussed, applied and empirically examined in diverse scholarly fields and classroom pedagogical contexts emphasising collaborative, project-based learning approaches situated within communities of practice (Goodman, 2010; Young & Collin, 2004). Ongoing research in domains like instructional design, curriculum development, educational technology, cross-cultural psychology and human development have all integrated modern social constructivist interpretations of learning and development in manifold ways (Murphy, 1997). However, the common unifying thread running through contemporary applications is retained emphasis on the vital nature of cooperative social discourse, contextualised collaborative activity and sustained opportunities for interactively making shared sense of knowledge as crucial preconditions for meaningful, culturally-supported human learning and advancement (McKinley, 2015).

The central premise of Social Constructivism is that learning involves dynamic construction of meaning shaped through interactions between people, rather than passive absorption of objective knowledge (Adams, 2006). Students make sense of new information by integrating it with their existing mental models, frameworks, beliefs -

reconciling and revising internal cognitive structures to accommodate insights through social discourse, collaborative analysis and knowledge application (Tobias & Duffy, 2009). This active, interpretive process of creating "constructed understanding" is facilitated by instructors, peers and socio-cultural environments that allow students to surface, test and refine their conceptions through cumulative questioning, reasoning, reflecting and applying (Shunk, 2012). Scaffolded exposure to alternative viewpoints, higher-order tasks, exemplary modeling and forms of cooperative support provides impetus for challenging and expanding current comprehensions (Erlwanger, 1973).

In building these shared artifacts of understanding in any domain, both individual cognitive restructuring as well intersubjective shaping of perceptions occurs simultaneously through acculturation to ways of observing, acting and valuing privileged by particular communities (Prawat & Floden, 1994). Students thus actively co-construct situated knowledge, competencies and forms of membership guided by more experienced guides attuned to their developing needs and societal norms - not by deriving objectified truths in isolation (Young & Collin, 2004). This complex interplay between existing schemas, socially mediated scaffolding attuned to individuals' zones of proximal development and evolving collective practices underpins the constructivist emphasis that knowledge emerges from relational interdependence, not predefined transmission (Tabak & Baumgartner, 2004).

Social Constructivism conceives the enrichment of understanding as an iterative, collaborative human process of wrestling with the tension between existing internal conceptualisations and new external insights to forge contextualised, self-authored meaning - co-enabled by social exchanges with those possessing greater expertise.

Social Constructivism suggests that e-formative feedback in remote education settings has immense untapped potential to function as a collaborative catalyst for deep learning, meaning construction, and self-regulatory skill building rather than merely an authoritative judgment on quality. Specifically, constructivist principles indicate that properly scaffolded, dialogue-based e-formative feedback can promote higher-order peer discussions for interrogating work, enable personalised sensemaking to advance cognitive growth, and sponsor the genesis of self-directed learning habits.

Research on Computer-Supported Collaborative Learning (CSCL) reveals that e-formative feedback opportunities act as interactive nodes for collectively negotiating disciplinary knowledge and standards, debating judgments, coaching each other through complex tasks by providing process-oriented commentary, modeling enhanced approaches, and co-constructing meaning from instructors' expert input (Gielen, Peeters, Dochy, Onghena & Struyven, 2010). This establishes assessment as socially-embedded conversations threading together multiple academic growth opportunities rather than isolated end-results.

Constructing understanding around complex phenomena necessitates reconciling diverse perspectives through reasoning, consensus building, conflict resolution and collective reflection to achieve enhanced mental models (Scardamalia & Bereiter, 2014). E-formative feedback dialogue within student teams nurtures such pluralistic sensemaking by bringing divergent interpretations out into the open for systematic analysis, critique, consolidation and accommodation. Groups leverage the interactive exchange to challenge assumptions, fill conceptual gaps, tackle misconceptions, recognize nuance, prioritise evidence, construct evaluative maturity and expand their collective knowledge frontiers (Molloy & Boud, 2013).

The social exchanges foster intersubjectivity development marked by increased attunement to others' worldviews when appraising work and greater appreciation of how situational conditions and alternate logics can yield valid differing viewpoints (Carless, 2013). This creates fertile ground for synergistic conceptions to emerge across collaborators through reconciling individual predispositions with group expectations under instructor guidance.

For individual students, qualitative research underscores that they actively negotiate the meaning of e-feedback comments by interpreting them against personal prior knowledge frameworks, metacognitive skills, motivational influences and self-efficacy. Students transform standardised feedback remarks into individualised learning opportunities contingent on their readiness levels (Winstone et al., 2017). The internalisation pathways build heavily upon socially scaffolded analysis, mentorship and peer observation for clarifying intentions, discussing strategies suggested by instructors, consolidating

standards and rubrics into mental models, and appreciating gaps needing improvement from outside vantage points.

Social Constructivism thus envisages that e-formative feedback coupled with collaborative consultation opportunities fundamentally sparks deeper intellectual engagement and cognitive advancement (Yang & Carless, 2013). When instructors and students collectively make sense of performance levels, articulate next steps, answer questions about expected quality, analyse models, brainstorm ideas for reaching goals and relate skills to purposes, individual comprehension progresses through socially supported grafting. Students integrate external feedback with their maturing identity as authors of knowledge within communities of practice (Nicol, 2010).

This interdependent scaffolding process further enables perceiving connections of specific feedback to broader disciplinary ways of practicing, thinking and being that students aspire towards (Boud & Molloy, 2013). Situated mentoring conversations around e-formative feedback plant seeds for augmenting student agency, evaluative expertise, metacognitive awareness and adaptive skill application over time. Students become cumulatively less reliant on instructor validation and develop growing confidence in directing their own learning trajectories that align with field-specific habits of mind and extended ambition (Carless & Boud, 2018).

In essence, adopting a constructivist perspective envisions e-formative feedback functioning akin to collaborative coaching exchanges rather than unilateral decrees - underpinning both group and individual advancement. The social affordances foster assembling distributed understanding. This manifests in multifaceted learning centered on collective knowledge negotiation, personalised cognitive restructuring and expanding self-regulatory capacities. All catalysed through continuous, responsive feedback dialogue.

However, Social Constructivism alone does not provide a comprehensive framework for understanding student responses to e-formative feedback. While Social Constructivism provides a valuable framework for understanding how students construct knowledge and meaning from feedback through social interaction and cultural contexts, it does not

thoroughly capture the underlying psychological processes influencing students' behavioral and cognitive responses to e-feedback comments. It is here that FIT and FDT offer valuable insights.

3.3 FEEDBACK INTERVENTION THEORY (FIT): UNDERSTANDING THE "HOW" OF STUDENT RESPONSES

3.3.1 Background of Feedback Intervention Theory (FIT):

Feedback Intervention Theory (FIT) was proposed by Kluger and DeNisi (1996) as a framework to understand the complexities involved in how feedback influences performance. The development of this theory was motivated by the inconsistent findings in the literature regarding the effects of feedback interventions on performance outcomes (Kluger & DeNisi, 1996). Prior research had yielded mixed results, with some studies showing positive effects of feedback on performance, while others demonstrated negative or null effects. To address these conflicting findings, Kluger and DeNisi (1996) conducted a meta-analysis of 607 effect sizes from 23,663 observations, examining the relationship between feedback interventions and performance. Their analysis revealed that the overall effect of feedback interventions on performance was moderately positive, but there was considerable variability in the effect sizes across studies.

Based on their meta-analytic findings, Kluger and DeNisi (1996) proposed the Feedback Intervention Theory (FIT), which posits that the effectiveness of feedback interventions depends on how the feedback influences the recipient's attention and motivation. Specifically, FIT suggests that feedback can either direct the recipient's attention toward or away from the task at hand, and this attentional focus, in turn, affects their motivation and subsequent performance.

According to FIT, when feedback directs the recipient's attention toward the task, it is more likely to have a positive impact on performance. However, when feedback diverts attention away from the task, it may have a detrimental effect on performance (Kluger & DeNisi, 1996). The theory further proposes that several factors, such as the characteristics of the feedback (e.g., sign, specificity, timing), the characteristics of the recipient (e.g., self-efficacy, goal orientation), and the characteristics of the situation (e.g.,

task complexity, interpersonal context), can influence the attentional and motivational processes triggered by feedback.

Since its introduction, FIT has garnered substantial attention and has been widely applied in various domains, including education, organisational settings, and healthcare (Anseel, Lievens & Schollaert, 2015; Teunissen, Kok & Schuit, 2020). The theory has provided a comprehensive framework for understanding the cognitive and motivational mechanisms underlying the effectiveness of feedback interventions and has informed numerous empirical studies and practical applications related to feedback delivery and design.

3.3.2 Why the Feedback Intervention Theory (FIT)

Since its introduction, FIT has been widely applied in workplace, educational and training research on feedback delivery mechanisms and impact. Scholars have tested and refined aspects of the model across domains. FIT remains one of the most comprehensive frameworks for tracing psychological pathways linking feedback exposure to behavioral change. It continues shaping how researchers conceptualise factors that enhance or inhibit effective utilisation of feedback by recipients.

Feedback Intervention Theory (FIT) offers crucial insights grounded in empirical evidence about the underlying psychological processes that determine whether students are able to effectively receive, interpret, and leverage e-formative feedback supplied in remote learning ecosystems. At its core, FIT provides explanatory logic tracing how variability in feedback design, student characteristics, and learning conditions collectively mediate the journey from initial feedback exposure to demonstrated changes in competency (King, 2016; Lipnevich et al., 2020). This multifaceted theory reveals intricacies within what is often assumed to be a linear trajectory (Johnson & Cooke, 2016).

FIT developer Avraham Kluger, drawing from decades of research on performance feedback, suggests feedback exposure sets into motion a sequence of competing attentional phenomena and intra-personal appraisals that ultimately shape behavioral outcomes observed (Kluger & DeNisi, 1996). Students confront a series of cognitive checkpoints influenced by individual differences in line with cognitive load theory (Sweller, 1988) and information processing models (Atkinson & Shiffrin, 1968). Thus, in many ways

students themselves determine the efficacy of externally delivered feedback comments through filtering perceptual and evaluative mechanisms at each processing stage outlined by the theory (Stone & Stone, 1985).

The initial reception phase highlights issues of visibility, format interpretability, clarity and salience that govern whether students consciously register or ignore presented feedback (Wisniewski et al., 2020). Content deemed noisy, ambiguous, overloaded or tangential risks not capturing learner attention among competing stimuli (Lang, 2000). Structural design issues around coherence, specificity and actionability also foretell comprehension barriers (van der Schaaf et al., 2013). Equally important in remote settings are logistical factors like accessible timeliness and convenient virtual delivery mechanisms affecting timely visibility (Coll et al., 2021) along with individual differences in online learning self-efficacy that lower initial feedback receptivity (Zimmerman & Tsikalas, 2005).

Assuming successive perception, FIT outlines internal sensemaking processes as students actively relate generalised feedback remarks to personal contexts, backgrounds, self-conceptions and evolving grasp of disciplinary concepts (Quinton & Smallbone, 2010). Complications arise when comments use unfamiliar frames of reference students cannot map inputs onto (Carless & Boud, 2018). Conflicting interpretations may also emerge between external feedback and students' own internal self-evaluations rooted in prior knowledge, requiring reconciliation (Uzuntiryaki-Kondakci & Capa-Aydin, 2013). Moreover, problem diagnosis and vagueness around expected standards, desired actions for improvement impede decoding meaning (Dawson et al., 2018). These decoding struggles tie closely with learners' metacognitive and content schema development (Wang et al., 1990). Students with limited self-monitoring abilities or underdeveloped mental models face overriding FIT's intended benefits.

Finally, FIT draws attention to the outcomes phase focused on behavioral regulation and decision-making regarding if, how and to what extent students utilise feedback content to change learning processes, tasks strategies or performance (Wisniewski et al., 2020). Student agency, self-efficacy, goal clarity, organisational skills and perceived utility judgments concerning allocated effort versus valued rewards shape enactment levels

(Locke & Latham, 2002). Without intentional mobilisation and proximal regulatory support, retention stays inert (Labuhn et al., 2010).

This study used Feedback Intervention Theory (FIT) to guide analysis of impediments within the feedback processing phases that ultimately inhibit demonstrable learning and improvements following e-formative feedback exposure. Following FIT's multi-stage cognitive sequence, this research traced how issues in initial attention and perception, sensemaking complications, low perceived utility judgements or inactive mobilisation collectively derail students from being able to effectively receive, interpret and leverage e-feedback comments to enact positive changes. Both data collection methods and interpretative analysis mirror FIT's focus on unpacking the "black box" family of intra-personal mechanisms that shape the trajectory from external feedback delivery through to observable behavioral responses. The goal was to formulate targeted interventions at the level of specific psychological processes, skills and motivational drivers where students appeared most challenged based on breakdown locations diagnosed by the FIT model. The discussion of findings (as will be seen in Chapter 6) center on explaining how and why observable unresponsiveness toward feedback arises from underlying processing deficiencies using FIT's processing vocabulary as explanatory framework.

3.4 FEEDBACK DESIGN THEORY (FDT): OPTIMISING THE "WHAT" OF E-FORMATIVE FEEDBACK

3.4.1 Background of Feedback Design Theory (FDT)

Feedback Design Theory (FDT) is a relatively contemporary theoretical framework proposed by educational psychologist Mien Segers and colleagues including Gino Camp in the early 2000s (Narciss, 2008). It emerged out of growing research on using computer-supported learning environments and instructional technology tools to determine how to optimise digitally-mediated instructional feedback delivery mechanisms to enhance student motivation, self-regulated skill development and achievement (Segers & Verhoeven, 2009).

The conceptual foundation underpinning FDT built directly upon seminal ideas established several decades prior by cognitive load theory pioneers like John Sweller regarding the inherent processing limitations of working memory when managing novel

information along with constrained cognitive architecture imposing an intrinsic, relatively rigid ceiling on knowledge construction possibilities absent scaffolding support (Sweller, 1988). FDT assimilates Sweller's insights derived from human information processing models, highlighting restricted cognitive channel capacity with other pre-existing cognitive perspectives, including Atkinson and Shiffrin's focus on explanatory control processes governing perception, attention, encoding, retrieval and response compilation that critically shape ultimate utilisation (Atkinson & Shiffrin, 1968). This dual focus stitches together both cognitive prerequisites and processes involved in making use of new feedback inputs.

Additionally, FDT purposefully incorporates Keller's prior research emphasising the motivational design of instructional materials and intrinsic incentives needed to sustain student engagement across iterative learning opportunities (Keller, 1987). It also assimilates concepts from software design principles, perspectives on optimising functionality afforded through human-computer interaction, multimedia learning effects and emerging evolutionary educational psychology theories to synthesise an appropriately interdisciplinary framework capable of tackling the intricacies of digitally enhanced learning environments (Narciss et al., 2014). This interdisciplinary synthesis makes FDT well-suited as a lens for examining the nuances of students' experiences and interactions with digitally-enhanced formative feedback mechanisms in the current study. FDT's focus on optimising feedback design through instructional technology aligns with understanding how the emergency remote learning context and online feedback delivery through the university LMS shaped participants' ability to effectively perceive, process and apply formative feedback inputs.

3.4.2 Why the Feedback Design Theory (FDT)

The overarching goal motivating development of a dedicated Feedback Design Theory was providing conceptual guidance as well as translation into concrete measurement-driven design principles for intentionally developing feedback content and delivery mechanisms that are optimally adapted to known learner cognitive constraints while also strategically incentivising motivational requirements (Shute, 2008). FDT continues actively shaping current research directions and discourse on intentionally enhancing

computer-mediated feedback interventions across online education, corporate training and other technology-enabled learning ecosystems by retaining a focus grounded in psychological foundations (van der Kleij, 2019)

Feedback is a critical component of effective teaching and learning. While formative assessment techniques help gather evidence of student understanding, it is the feedback provided to students that enables them to actually improve their learning. FDT provides a research-based framework for constructing feedback in a way that maximises its benefit for students. Developed by researchers such as Susan Brookhart, Thomas Guskey, and Margaret Heritage, FDT complements formative assessment theory by focusing specifically on the design of the feedback itself.

The core principles of FDT emphasise the importance of tailoring feedback to the needs of individual students and specific learning goals. Clarity and specificity are key principles of effective feedback. The feedback provided to students should be as clear and specific as possible, providing actionable information on what students are doing well and concrete guidance on how to improve. As Guskey (2019) notes, vague feedback such as "good job" offers little value, while specific feedback such as "you made insightful connections between the text and real-world examples" gives students useful information to support further learning.

In addition to clarity, feedback should also focus on progress rather than solely errors or shortcomings. As Brookhart (2017) advises, while feedback should identify areas for improvement, it should put equal or greater emphasis on what students are doing right and analyse the positive steps they are taking. This fosters a growth mindset and supports motivation. Comments like "Your introduction is coming along nicely. The next step might be to expand on how this historical event relates to the modern day" balance constructive criticism with recognition of learning gains.

The language used in delivering feedback should also be carefully constructed to motivate learning and future action. As Guskey (2019) recommends, feedback should provide students with specific direction on what steps to take next using positive, action-oriented language. Vague statements like "work on your transitions" are far less helpful

than comments like "linking your paragraphs with transition words would improve the flow of your writing". This models for students how to turn feedback into concrete improvements in a constructive way.

In addition to content, the timing and frequency of feedback are also critical considerations within FDT. To meaningfully support learning and growth, feedback should be given in a timely manner, while learning is still underway (Brookhart, 2017). Providing rapid feedback allows students to incorporate improvements in their work right away. Giving students regular feedback is also important, as one-off instances are less effective than an ongoing feedback loop. Building routines for continuous peer and teacher feedback during the learning process better allows students to monitor their own progress.

There are several key strategies teachers can use to put the principles of feedback design theory into practice:

- Provide feedback frequently, not just on final products. Give feedback early and often, such as in classroom discussions, drafts, or practice tasks. This allows students to continuously refine their understanding.
- Focus comments on the learning goals and success criteria. Align feedback to specific desired outcomes to help students meet expectations.
- Balance criticism with praise. Point out strengths as well as areas for growth to encourage persistence and self-efficacy.
- Scaffold reflective processes. Model how to analyse feedback, set goals based on it, and systematically improve.
- Customise feedback based on individual student needs, abilities, and personal learning goals. What motivates and supports learning differs across students.
- Give feedback in a supportive manner. The tone and language used should promote motivation and engagement with the learning process.
- Provide actionable steps. Feedback should include specific directions on what students can do to improve their work or deepen understanding.

- Allow opportunities to apply feedback. Students need chances to immediately implement the guidance received to see its positive impact.
- Check student interpretation of feedback. Have students explain or demonstrate what they will do differently based on the feedback to ensure correct understanding.

While crafting quality feedback takes time and skill, it is an investment that can significantly improve student achievement. The principles of FDT offer instructors research-backed guidance on how to make feedback more purposeful, clear, supportive, and actionable. By focusing not just on formative assessment techniques but also carefully constructing the feedback itself, instructors can create more meaningful learning experiences for students. Regular, individualised feedback tailored to learning goals empowers students to continuously improve their work and deepen their understanding of course material.

FDT emphasises the importance of personalised, timely, and forward-focused feedback to promote student motivation and improvement (Brookhart, 2017). This provides a relevant framework for examining first year students' experiences of receiving e-formative feedback during ERL in terms of quality, usefulness, and impact on their learning process (Guskey, 2019; Heritage, 2010). Analysing the specific types of feedback strategies used in ERL against FDT guidelines on clarity, actionability, and tone can reveal potential gaps between recommended and actual practice that may explain student response patterns (Brookhart, 2017). Additionally, FDT's premise that effective feedback is ongoing rather than one-time suggests analysis of feedback frequency in ERL and its influence on perceptions (Heritage, 2010). Overall, FDT's criteria for maximising feedback effectiveness directly relates to the research goals of understanding how and why first year students respond to e-formative feedback during ERL.

3.5 APPLICATION OF THE THREE THEORETICAL FRAMEWORKS IN THIS STUDY

3.5.1 Social Constructivism

I analysed first year students' subjective experiences and perspectives shared in the semi-structured interviews and focus groups through a social constructivist lens. This

aligns with the theory's view of learning as constructed based on personal meaning-making. When coding data, I identified instances of collaborative remote learning, scaffolding, ZPD, and self-regulated learning capacity development as described by participants. The theory indicates these are important elements.

In determining themes, I looked for patterns related to instructors supporting students through e-formative feedback dialogue and interaction. The theory sees this mentorship as essential. Student descriptions of making sense of and applying e-feedback comments were analysed using the theory's assumption that knowledge is co-constructed during this social process.

When students described confusion or rejection of e-formative feedback, I interpreted the reasons through the lens of cultural meaning-making, recognising the theory's emphasis on language and cultural contexts. During analysis, I considered how social, cognitive, and emotional factors intersect to shape students' perceived reality of the e-feedback experience, as the theory foregrounds these elements.

The end goal was to develop a richer understanding of variables influencing students' feedback responses, taking a constructivist perspective focused on individual meaning-making and social knowledge construction.

Furthermore, I discussed the findings in relation to social constructivism principles to interpret why students respond to e-formative feedback in certain ways during ERL. Explicitly. I connected data analysis procedures to the tenets of social constructivism demonstrates intentional, theory-driven analysis.

3.5.2 Feedback Intervention Theory (FIT)

In this study, Kluger and DeNisi's (1996) FIT provided a valuable lens for examining how various factors influenced first year students' cognitive and motivational responses to the e-formative feedback they received during ERL. Specifically, FIT guided my analysis of how the characteristics of the e-feedback itself (e.g., clarity, specificity, valence), the characteristics of the students (e.g., self-efficacy, goal orientation), and the characteristics

of the learning environment (e.g., ERL) interacted to shape students' attentional focus and motivation toward the e-formative feedback.

Drawing on FIT, I explored how certain types of e-formative feedback, such as vague or overly critical comments, may have diverted students' attention away from the learning task, potentially undermining their motivation and performance. Conversely, this study unveils how specific, constructive e-feedback that highlighted areas for improvement and provided guidance could direct students' attention toward the task, enhancing their motivation and learning. Furthermore, FIT enabled me to examine the role of individual student characteristics, such as self-efficacy beliefs and achievement goals, in moderating their responses to e-formative feedback. By considering these student factors, I gained insights into why some students may have perceived and utilised the feedback more effectively than others.

3.5.3 Feedback Design Theory (FDT):

Complementing FIT, Narciss's (2008) FDT provided a framework for analysing the design and delivery of effective e-formative feedback interventions in my study. Specifically, FDT guided my investigation of how different types of e-feedback (e.g., knowledge-based, process-oriented, self-regulation feedback) and their presentation formats (e.g., textual) influenced students' cognitive, motivational, and metacognitive processes related to learning. Using FDT, I explored how text-based feedback impacted students' understanding, motivation, and self-regulation strategies. During the Thematic Analysis of my data, FDT provided a lens through which I could interpret students' responses. It helped me identify themes related to the effectiveness of feedback design, the impact of digital delivery on feedback reception, and how students' motivation and self-regulation were influenced by the feedback design. Furthermore, FDT was also instrumental in helping me interpret and contextualise my findings. I used the theory to understand how the design elements of e-formative feedback in the ERL context influenced students' perceptions, engagement, and learning outcomes. This allowed me to draw meaningful connections between feedback design features and students' reported experiences. By considering the elements of this design, I gained insights into how to optimise the delivery

of e-formative feedback to better support students' cognitive, motivational, and metacognitive processes.

The diagram below provides a summary of how I integrated the three theoretical frameworks to explore first-year student teachers' experiences related to e-formative feedback in the context of ERL.

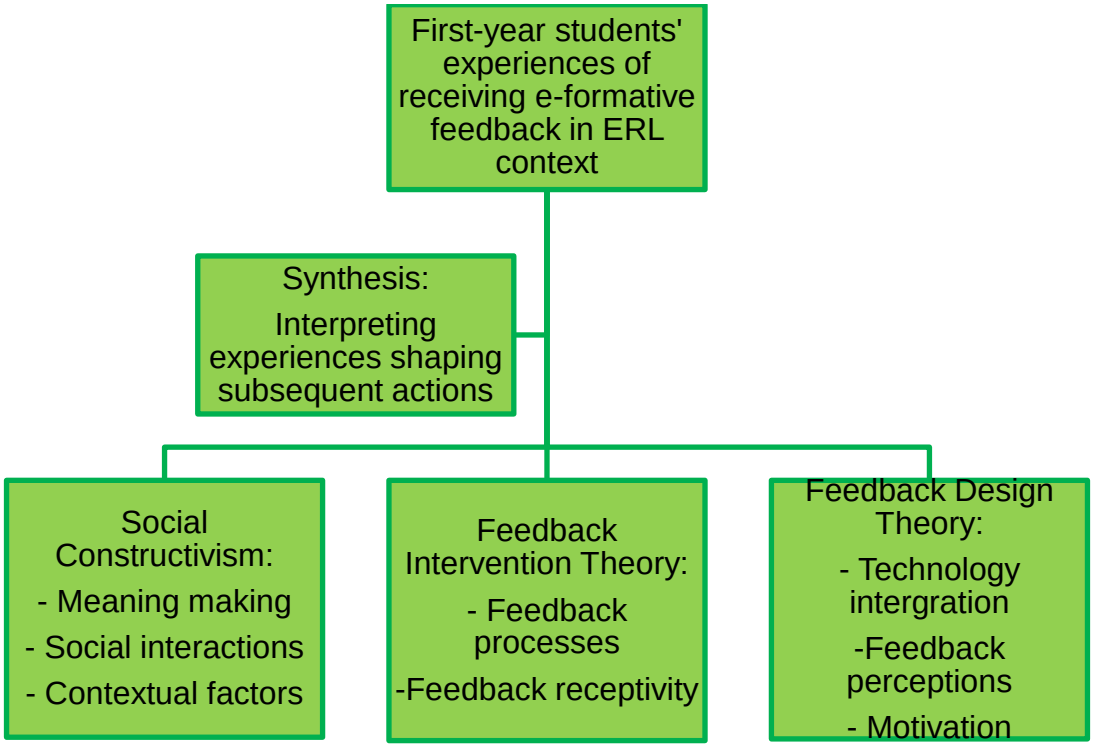


Figure 3.1 Theoretical Frameworks

The diagram depicts how the three theoretical lenses were integrated to interpret and provide comprehensive insights into first-year student teachers' experiences of and their subsequent actions to receiving e-formative feedback in the context of ERL. Social constructivism highlighted the role of meaning-making, social interactions, and contextual factors in shaping students' experiences. Feedback Intervention Theory focused on the processes involved in receiving feedback, feedback perceptions, and receptivity factors. Feedback Design Theory emphasised optimising feedback design through technology integration and motivational considerations. Together, these three complementary perspectives synthesised to offer a holistic theoretical framework for exploring how students interpret and make meaning of their e-formative feedback experiences, and how

those interpretations shape their responses within the unique ERL environment. The integrated framework helped me capture the personal, social, contextual, cognitive, and motivational dynamics influencing this phenomenon.

3.6 CONCLUSION

In this chapter, I discussed the three theories that served as a lens for my study. These three theories, when interwoven, offer a comprehensive framework for understanding students' experiences of e-formative feedback in the context of ERL. Social Constructivism lays the groundwork by highlighting the significance of social interaction and interpretation in learning. FIT delves deeper, examining the specific phases students navigate when receiving feedback - reception, interpretation, and utilisation. Finally, FDT focuses on optimising the design of the e-formative feedback itself.

This interconnectedness allowed me to explore not just what first-year students received but also how they made sense of it and how the feedback itself was structured. I could investigate how social interactions in ERL, facilitated by technology, influenced the reception of feedback (Social Constructivism). Subsequently, FIT allowed me to analyse how students interpreted the e-formative feedback based on their individual characteristics and learning styles. Finally, FDT helped me analyse if the e-formative feedback was designed effectively to be clear, actionable, and aligned with learning goals, maximising the potential for students to utilise it for improvement (Social Constructivism again!). By looking at these theories together, I gained a holistic understanding of how first-year student teachers engaged with e-formative feedback during ERL, ultimately leading to insights for improving their learning experience. In the next chapter, I discuss the research methodology, design and methods used to collect data for this study.

CHAPTER 4 RESEARCH METHODOLOGY AND DESIGN

"*Feedback can promote deep learning, increase reflective skills and help students prepare for future learning events.*" (Peacock, Murray and Scott, 2010, p. 309)

4.1 INTRODUCTION

In the previous chapter, I discussed the theoretical frameworks that I used to view the research problem and orient my study. The objective of this chapter is to describe and discuss the research methodology and design that I adopted in this study. Firstly, I outline the philosophical and methodological positioning in general, specifically, the case study approach that I used to explore first-year students' experiences of receiving e-formative feedback during ERL. Thereafter, I provide a description of the research context, the sampling strategies, and the data generation methods that I used in the study. Next, I discuss the process of data analysis that I employed to make meaning of first-year students' experiences of receiving e-formative feedback during ERL, how and why they use e-formative feedback the way they do. Then, I outline the appropriate and necessary considerations of the research by taking into account of issues of trustworthiness and ethics. Finally, I discuss the methodological limitations of this study.

4.2 RESEARCH METHODOLOGY

Research methodology refers to the logic through which a researcher addresses the design of their research study. It is how a researcher approaches a research problem as well as the ways in which they pursue the answers to a research problem (Taylor, Bogdan & De Vault, 2016). Research methodology can also be defined as a theoretical perspective or lens through which a researcher sees the social world (Hesse-Biber & Leavy, 2011). Drawing from this, one may say that research methodology is a bridge between a philosophical viewpoint and the methods used in a study. This study explored first-year students' experiences of receiving e-formative feedback during ERL and how they potentially use it to inform their remote learning. To achieve the objectives of this study, I adopted a qualitative research methodology. In the next section, I discussed qualitative research and its usefulness for my study.

4.2.1 Qualitative research

In this study, I adopted a qualitative research approach, which describes and analyses people's individual and collective social actions, beliefs, thoughts, and perceptions (Creswell & Poth, 2018). This approach differs from quantitative research, which assumes social facts exist with a single objective reality separate from individual feelings and beliefs (Merriam & Tisdell, 2016). I chose a qualitative study because it allowed me to explore e-formative feedback practices in higher education during Emergency Remote Learning (ERL) through the social experiences of first-year students. The choice of a qualitative approach was driven by several key factors. Primarily, it allowed for an in-depth exploration of the complex, nuanced experiences of first-year students navigating the unprecedented challenges of ERL. As Patton (2015) argues, qualitative research is particularly effective when seeking to understand phenomena within their context-specific settings, such as the "real-world" setting of ERL where I could not manipulate the behaviour of participants or control the implementation of feedback practices.

The main characteristic of qualitative research is that it is mostly appropriate for small samples, while its outcomes are not measurable and quantifiable (Braun & Clarke, 2021). This was favorable for my study as I sought to explore the experiences of receiving e-formative feedback from a small group of first-year students and provide in-depth immeasurable data. A basic advantage of qualitative research, which also constitutes its basic difference from quantitative research, is that it offers a complete description and analysis of a research subject, without limiting the scope of the research and the nature of participant’s responses (Braun & Clarke, 2021). A qualitative approach was suitable for this study as it sought to provide rich descriptive data about students’ experiences of receiving e-formative feedback during ERL from first-year students’ perspective, but without limiting the scope of the study.

Furthermore, the flexibility inherent in qualitative research methods was another significant factor in my methodological choice. As noted by Flick (2018), qualitative approaches allow for an iterative research process, enabling the researcher to refine and adapt their methods as new insights emerge. This flexibility was particularly valuable given the rapidly evolving nature of ERL practices during the study period. Moreover, the

interpretive nature of qualitative research, as highlighted by Denzin and Lincoln (2018), enabled me to delve into the subjective meanings that students attributed to their e-formative feedback experiences. This aspect was crucial, as the study sought to uncover not just what feedback students received, but how they perceived, interpreted, and acted upon this feedback within the unique context of ERL.

In summary, the qualitative approach adopted in this study provided the methodological framework necessary to explore the multifaceted nature of students' experiences with e-formative feedback during ERL. By prioritising depth of understanding over breadth, this approach allowed for a nuanced exploration of the phenomenon, capturing the complexities and contradictions inherent in students' lived experiences (Braun & Clarke, 2021). While quantitative methods might have provided broader, generalisable data, they would not have captured the rich, contextual insights that this qualitative approach afforded (Braun & Clarke, 2021).

4.3 RESEARCH DESIGN

A research design is like a plan or strategy and refers to a comprehensive outline of an examined study (Maree, 2007). It is how the research is conceptualised and how the findings are eventually put together (Maree, 2007). A research design is a kind of 'blue-print' of the study that focuses on the planning process, the end product and on the aim of the results. In this section, I discussed the case study design and the interpretive paradigm adopted in this study. While I chose to do a case study and to draw on principles of the interpretive paradigm, I was aware of the critiques levelled against them. I engaged with these critiques to explain how a case study and the principles of interpretive paradigm were managed in this study.

4.3.1 Case study

In this study, I chose to utilise a case study approach to investigate my research questions. Qualitative research designs include conceptual studies, historical research, action research, case study research, ethnography, and grounded theory (Maree, 2007). Within a qualitative framework, I found a case study most appropriate for this study. A case study is generally hailed for its strength in enabling an in-depth understanding of the

complexities of a situation or process because of its “heuristic, inductive and descriptive nature” (Anderson, 2002, p.37). This research design was, therefore, suitable for my study because it enabled me to provide a detailed description of first-year students’ experiences of receiving e- formative feedback during ERL. A case study focuses on a singular phenomenon and provides a description of “how, where, when and why things happen” (Henning, van Rensburg & Smit, 2004, p. 41). This was favorable for my study as I sought to provide an in-depth description of how students experience receiving e-formative feedback, and how and why they use it to inform their remote learning during ERL.

A case study research design does not prescribe a method but allows the researcher to use a combination of multiple data generation methods, including, among others, interviews, observation, and documents (Cohen, Manion & Morrison, 2011). This was another reason for my choice to use this research design in this study – because it allowed for triangulation – a case study enabled me to engage closely with my study participants using two data collection methods (semi-structured interviews and focus group discussions), allowing me to provide in-depth information needed for this study (Cohen, Manion & Morrison, 2011). A case study research design articulated well with the intention and purpose of my study, which was to explore first-year students’ experiences of receiving e-formative feedback during ERL in South Africa at one teacher education university.

While case studies may be credited with providing contextually rich information, they are not free from criticism (Merriam, 2009). Merriam (2009) provides three central drawbacks of this research design. Firstly, the time limit and other resources may interfere with the provision of “thick” descriptive data, which is the main aim of a case study. Secondly, case studies may oversimplify or exaggerate certain factors (Merriam, 2009). Thirdly, a case study, (like most qualitative research designs), depends on the researcher’s sensibility and integrity (Merriam, 2009; Anderson, 2002, p. 37). A further critique of case study research is described by de Vaus (2001) who asserts that “while case studies may achieve excellent internal validity by providing a profound understanding of a case, they lack external validity because they provide no basis for generalising to a wider population

beyond that case" (p. 237). Both de Vaus and Merriam's critiques on case study research design are vital, but it is important to recognise that not all case study research aims at making generalisations. This study, for instance, explored the typicality of a particular case – first year students' experiences of receiving e-formative feedback during ERL. This study did not seek to make generalisable assumptions but to obtain an in-depth rich understanding of the phenomenon.

As a response to the first drawback of case studies, I maintained a high degree of focus on the study to try and meet the time limit I had to carry out the study. As for the second drawback, I argued that my single case study did not mention everything about first-year students' experience of receiving e-formative feedback during ERL in South African universities. It stayed focused on the research questions and on the participants that were chosen to avoid oversimplification and exaggerations about the study. The third drawback, which speaks to the issues of sensitivity and integrity, presents a serious challenge, which, however, was avoided by sticking to research ethics while conducting this study.

A case study research design can address important questions regarding educational practices, of what works and what does not, and can add to a body of research and to theoretical understandings of teaching and learning grounded in specific contexts (Cohen et al., 2007). Thus, given the nature of my research, I believed that my qualitative case study enquiry with its interpretivist orientation was appropriate for understanding first-year students' experiences of and how they use e-formative feedback during ERL at a public teacher education university in South Africa.

4.3.2 Interpretive paradigm

The paradigm that guided this study was the interpretive paradigm, developed from the interpretivism theory. The interpretive paradigm emerged during the paradigm wars of the 1980s (Denzin & Lincoln, 2011), where a move to reject positivist, quantitative research approaches was led by post-positivists to promote a more naturalistic yet equally valid scientific enquiry in empirical social sciences (Dean, 2018). The interpretive paradigm was coined to demark research practices that turn away from de-humanised,

objective research towards a re-humanised, contextual and reflexive approach, which centralises human meaning-making and knowledge claims (Dean, 2018; Yanow & Schwartz-Shea, 2014). The interpretive paradigm is concerned with understanding the subjective world of human experience (Cohen, Manion & Morrison, 2011). It maintains that in order to understand human actions, one should see the world through the eyes of the actor doing the action rather than through the use of scientific methods (Collins, 2010). The interpretive paradigm is rooted in the belief that human beings make meaning of the world through the social interactions they have with others, within their specific context. This paradigm assumes that human beings actively construct their own knowledge; they create and associate their subjective meanings as they interact with the world around them (Creswell, 2012). Drawing from these interpretivism principles, one may say that an interpretivist researcher's effort is to develop an in-depth understanding of a phenomenon through the eyes of the participants (De Vos, Delport, Fouché & Strydo, 2005).

I located this study in the interpretive paradigm because I sought to explore first-year students' experiences of receiving e-formative feedback from the subjective views and experiences of each student participant (De Vos et al., 2005). I believed that students' experiences of receiving e-formative feedback during ERL cannot be quantitatively observed or measured but can be explored through active engagement with the students (Gichuru, 2017). Thus, as a researcher working in the interpretive paradigm, I explored first-year students' experiences of receiving e-formative feedback during ERL through active interaction and engagement with the study participants.

Furthermore, I drew from the principles of the interpretive paradigm to debate, ask questions, and raise awareness of factors that contribute to first-year students' experiences of receiving e- formative feedback during ERL. I sought to understand and reveal first-year students' subjective experiences of receiving e-formative feedback in the context of ERL. I used the principles of the interpretive paradigm in my research as a means of exposing underlying factors that contribute to first-year students experiencing e-formative feedback during ERL the way they do. By locating my study in the interpretive paradigm, I sought to grapple and probe some of the complexities and issues of e-formative feedback as experienced by first-year teacher education students during ERL

in South Africa, specifically at a selected teacher education university. I hoped that this would raise awareness and possibly address some issues relating to e-formative feedback practices in higher education.

The interpretive paradigm has been criticised in that its ontological view tends to be subjective rather than objective (Mack, 2010). For this reason, research outcomes are unquestionably affected by the researcher's interpretation, belief system, and ways of thinking or cultural preferences, which causes too many biases (Cohen, Manion & Marison, 2011; Mark, 2010). Another criticism of the interpretive paradigm is that it tends to leave out a gap in verifying the validity and usefulness of research outcomes because it aims to gain an in-depth understanding of phenomena within the complexity of the context rather than generalise these results to other people and other contexts (Cohen et al., 2011).

Despite the critiques levelled against the interpretive paradigm, researchers who position their research under this paradigm are unapologetic, maintaining that no research method is objective (Creswell, 2009). For this study, I used two data collection methods (triangulation), which are semi-structured interviews and focus group discussions, to overcome problems of bias and validity (Creswell, 2012; Cohen et al., 2011). Moreover, this study did not seek to produce generalisable findings but provide an in-depth understanding of the complexities of a situation in a particular context, at a particular time – that is first-year students' experiences of receiving e-formative feedback in the context of ERL.

4.4 RESEARCH CONTEXT

This study was conducted in South Africa in the Gauteng province. South Africa and many other countries worldwide have witnessed tremendous shock resulting from the emergence of the COVID-19 pandemic (Mukuka, Shumba & Mulenga, 2021; Sintema, 2020; Worldometer, 2021). When the first positive cases of COVID-19 were announced in South Africa in March 2020, the government, through the Minister of Higher Education, ordered the closure of all universities in a bid to combat the spread of the disease. At the onset of university closures, the COVID-19 outbreak reminded us of the need for

alternative teaching and learning as well as assessment practices outside the classroom environment. The COVID-19 pandemic forced a swift shift to ERL thus universities in South Africa launched interactive e-learning platforms for teaching and learning to continue remotely (Mukuka et al., 2021; Sintema, 2020; Worldometer, 2021). The South African Telecommunications Companies partnered with universities and provided registered students with free mobile data to ensure that students had access to the e-learning platforms during the COVID-19 outbreak period. Being aware that some students did not have access to technological devices, universities in South Africa offered laptop loans as part of the measures for attaining one of the most ambitious educational goals – "Inclusive and equitable quality education for all" (Mukuka et al., worldometer, 2021). The implementation of the measures highlighted above allowed for remote teaching and learning, the administration of e-assessments and the provision of e-formative feedback during the COVID-19 outbreak period.

It is worth noting that some institutions, particularly those with pre-existing robust online learning infrastructure, were able to transition relatively smoothly to fully online delivery of courses and feedback. These universities often had established learning management systems and staff trained in online pedagogy, allowing for a more seamless adaptation of feedback practices to the digital environment (Hodges et al., 2020). In contrast, other institutions, especially those in resource-constrained environments, faced significant challenges in implementing ERL. These universities often had to rely on more basic technologies, such as email or messaging apps, for delivering feedback. The disparity in technological resources led to varying qualities of e-formative feedback across different institutions (Mishra et al., 2020). The variability in institutional responses also extended to the level of support provided to faculty for adapting their feedback practices. Some universities invested heavily in professional development, offering workshops and one-on-one coaching on effective online feedback strategies. Others left it largely to individual instructors to adapt their practices, resulting in inconsistent experiences for students even within the same institution (Winstone & Carless, 2020).

With this background, I found it necessary to undertake a study to find out first-year students' experiences of receiving e-formative feedback during ERL. In South Africa, e-

formative assessment, in which e-formative feedback plays a critical role, is a clear policy expectation for remote classroom practices (National Protocol for Assessment [NPA], 2012; van der Kleij, 2019). E-formative feedback is regarded as crucial in the remote learning process because it is a tool that can help students bridge the gap between where they are in their learning and where they need to be (Clark, 2012; Nicol, Thomson & Breslin, 2014; Stobart & Gipps, 2010). This study reports on first-year student teachers' experiences of receiving e-formative feedback during ERL at a selected public teacher education university. The university is in Johannesburg and is one of the universities that launched an interactive e-learning platform (a Canvas LMS), partnered with South African Telecommunications Companies to offer registered students mobile data, and offered laptop loans to students to ensure that teaching and learning continued, the quality of assessment is maintained, and e-formative feedback is provided to students during ERL.

4.5 SELECTION OF PARTICIPANTS

The selection of participants (also known as sampling) is a crucial step in the research process, involving the researcher's decisions about which individuals, settings, materials, and events to include in the study (Sarantakos, 2005). A systematic approach to participant selection is essential to ensure the credibility and representativeness of the research data. In this study, I employed purposive and convenience sampling approaches. Purposive approach is sampling which looks for factors which fit the criteria of desirable (Onwuegbuzie & Leech, 2007). The purposive sampling approach is used when samples are chosen because they have particular features or characteristics that will enable detailed exploration and understanding of the central questions that a researcher intends to study (Ritchie & Lewis, 2003; Onwuegbuzie & Leech, 2007). In this study, I purposively selected first-year students who are enrolled for the Becoming a Teacher (BAT) course. BAT is a compulsory course for all first-year students who are registered for the Bachelor of Education degree in the selected university. The course aims to assist first-year students acquire important knowledge about what it entails to be a teacher. I purposively selected this group of first-year students because I believed that participants from a single discipline create a 'bounded setting' (Jazvac-Martek, 2009), which can be beneficial for providing a shared understanding of views and experiences

that will emerge from this research discussion. Purposive sampling ensured participants had experience with the phenomenon understudy and provided information-rich descriptions. Random sampling was not needed for this exploratory qualitative purpose.

Furthermore, I purposively selected this group of students because I believed that the e-formative feedback they receive on e-formative assessments (various tutorial tasks and other formative tasks) for the BAT course is crucial. After all, it has the potential to assist them in becoming teachers who are conscious about their feedback practices.

From this large sample of students, I further purposively selected thirty-six first-year students through academic profiling. With the help of the BAT course coordinator, I selected twelve student participants in each of the following academic performance categories; lower (<39%), middle (40-69%) and higher (above 69%). This was done to ensure that data was collected from students with varying academic performances in order to get a holistic understanding of their experiences of receiving e-formative feedback and how they use it to inform their remote learning during ERL. Although I purposively selected students according to academic profiling, the study was conducted as part of a broader consultation exercise on e-formative feedback, and the actual sample size was determined solely by the number of students who wished to and were able to take part within a specified timeframe, rather than on the number required to achieve saturation.

To gain access to a research space, more personalised requests have a greater impact and more committed responses from possible participants (Marshall & Rossman, 2011). Therefore, prior to following up the above-discussed sampling method (purposive sampling), I obtained permission to conduct my study from the Head of School and the Registrar at the selected teacher education university. When I received approval letters, giving me permission to conduct my research, I communicated with the BAT course coordinator, through e-mail, to ask for permission to invite first-year students from the BAT course to participate in my study. When permission was granted, the course coordinator then helped me select potential study participants according to academic profiling. Following the selection process, I communicated with the potential participants through their student emails about the purpose of my study and to probe their willingness

to participate in the study. I did this to ensure that the course coordinator and I do not in any way coerce students into participating, hence affording them an opportunity to make an informed decision to either participate in the study or not. Moreover, as discussed under the ethical considerations section, each student who agreed to participate in my study was sent a consent form through email, which they completed and indicated their willingness to participate in the study prior to the commencement of the study. Students were also informed that if they changed their minds about participating in the study, they could withdraw their participation and would not face any penalties from the university.

Another method I used in this study to select the study participants was convenience sampling because the study was intentionally limited to first-year student teachers who were enrolled for the BAT course at one public teacher education university in Johannesburg, Gauteng. Convenience sampling is defined as a method of selecting study participants based on their availability and accessibility (Remler & Ryzin, 2014). Researchers who use a convenience sampling approach choose the nearest participants, making it easy and quick for them to generate data (Cohen et al., 2011). I chose this group of students as participants for my study because I considered them as convenient sources for the reasons below:

- I am a tutor at the selected university, and I teach some of the first-year students who are enrolled for the BAT course.
- I am in several WhatsApp groups with first-year students – the WhatsApp groups were formed to enable students to conveniently reach out to their tutors for academic reasons and/or support during ERL. Therefore, these students are easily accessible to me.
- I have built a good professional relationship with the BAT first-year students; thus, I believe they may be comfortable discussing their experiences of receiving e-formative feedback during ERL with me.

As the researcher in this study, I found myself in a unique position that offered both advantages and challenges. Being a tutor at the university and having an established relationship with many of the first-year BAT students provided me with valuable insider access and rapport. My participation in student WhatsApp groups and familiarity with the

participants facilitated easy communication and potentially more open, comfortable discussions about their experiences with e-formative feedback during ERL. However, I was acutely aware that this proximity and familiarity could potentially influence the research process and outcomes. To address these concerns, I implemented several strategies to maintain objectivity and research integrity. First and foremost, I engaged in ongoing reflexivity, constantly examining my positionality and potential biases through a reflective journal. This helped me remain cognisant of how my role might shape data collection and interpretation.

I also took care to clearly delineate my role as a researcher from my position as a tutor, assuring participants that their involvement (or lack thereof) would not affect our professional relationship or their academic standing. Confidentiality and anonymity were emphasised to encourage honest and open responses. To further ensure the accuracy of my interpretations, I employed member checking, allowing participants to review and provide feedback on my initial findings. Additionally, I sought external perspectives through peer reviews from colleagues not involved in the BAT course. This external input helped identify potential blind spots or biases stemming from my familiarity with the context. By implementing these measures, I aimed to leverage the benefits of my insider status while maintaining research integrity. This approach allowed me to produce trustworthy findings that accurately represent the participants' experiences of receiving e-formative feedback during ERL, balancing the advantages of familiarity with the need for objectivity and rigor in qualitative research.

In summary, I employed purposive and convenience sampling methods to select participants for this study. These sampling methods enabled me to collect valuable data from the targeted population sample. In this study, I explored first-year students' experiences of receiving e-formative feedback during ERL, and therefore purposively and conveniently selected first-year student teachers with varying academic performances for the BAT course, who were willing to participate in the study and who were easily accessible to me. To address the potential influence of my dual role as both researcher and tutor, I implemented several measures to ensure research integrity and participant autonomy. Firstly, I emailed consent forms and information sheets to students, clearly

stating that participation was voluntary and that they could withdraw at any time without any disadvantages or penalties. This helped ascertain that students were not coerced into participation. Additionally, I engaged in ongoing reflexivity through journaling to examine my positionality and potential biases. I explicitly delineated my role as a researcher separate from my tutor position when interacting with participants. To further mitigate any undue influence, I employed member checking, allowing participants to review my initial findings, and sought external peer reviews from colleagues not involved in the BAT course. These comprehensive measures aimed to leverage the benefits of my insider status while maintaining objectivity and ensuring that the tutor-student relationship did not compromise the study's integrity or the participants' willingness to share honest perspectives.

4.5.1 Description of selected participants

The data for this study was collected from thirty-six first-year student teachers who were enrolled for the BAT course at a public teacher education university in Johannesburg in Gauteng province. These students were purposively sampled according to academic profiling and conveniently sampled depending on accessibility and willingness to participate. The data that was generated in this study came from the sample of student participants indicated below:

Table 4.1 Participants information

NAME	SPECIALISATION	NAME	SPECIALISATION
Student AA	FET Phase	Student AB	FET Phase
Student AC	FET Phase	Student AD	Senior Phase
Student AE	FET Phase	Student AF	Senior Phase
Student AG	Senior Phase	Student AH	FET Phase
Student AI	Senior Phase	Student AJ	Senior Phase
Student AK	FET Phase	Student AL	FET Phase

NAME	SPECIALISATION	NAME	SPECIALISATION
Student AM	FET Phase	Student AN	FET Phase
Student AO	Senior Phase	Student AP	FET Phase
Student AQ	Senior Phase	Student AR	Senior Phase
Student AS	Senior Phase	Student AT	FET Phase
Student AU	Senior Phase	Student AV	FET Phase
Student AW	FET Phase	Student AX	Senior Phase
Student AY	FET Phase	Student AZ	Senior Phase
Student BA	Senior Phase	Student BB	FET Phase
Student BC	FET Phase	Student BD	FET Phase
Student BE	Senior phase	Student BF	Senior Phase
Student BG	Senior Phase	Student BH	FET Phase
Student BI	Senior phase	Student BJ	FET Phase

4.5.2 Rationale for Selecting First-Year Becoming a Teacher (BAT) Students as Participants

As a researcher conducting this study on students' experiences of receiving e-formative feedback during ERL, I had specific reasons for choosing first-year students enrolled in the Becoming a Teacher (BAT) course as the participants for my study. This decision was carefully considered and aligned with the research objectives and context.

Firstly, the BAT course serves as a foundational module in teacher education programs, introducing and preparing students for the teaching profession. As aspiring teachers, the participants in this course would be actively engaged in learning experiences that involve various assessments and feedback processes. Exploring their experiences of receiving e-formative feedback during this critical stage of their professional development provided

valuable insights into the role and impact of feedback in shaping their pedagogical knowledge, skills, and dispositions.

Secondly, the BAT course typically covers a broad range of topics related to teaching, including classroom management, student diversity, assessment strategies, and curriculum design. By focusing on students enrolled in this course, I had the opportunity to examine how e-formative feedback influences their learning and understanding across multiple domains that are essential for effective teaching practices. Additionally, as first-year students, the participants are in the initial stages of their teacher education program, potentially experiencing e-formative feedback processes for the first time in a higher education context. This unique perspective allowed me to explore their perceptions, challenges, and experiences of receiving e-formative feedback in a formative phase of their academic journey, providing valuable insights into how feedback can be optimised to support their learning and development from the outset.

Furthermore, the BAT course often involves a combination of theoretical and practical components, such as lesson planning and microteaching experiences. Investigating the role of e-formative feedback in this context contributed to a comprehensive understanding of how feedback can support both the conceptual and applied aspects of teacher preparation. Moreover, by choosing first-year BAT students, I was able to identify gaps or areas for improvement in the e-formative feedback processes within the teacher education program. This information informed recommendations and strategies for enhancing the effectiveness of feedback practices, ultimately benefiting not only the current cohort but also future generations of aspiring teachers.

Finally, the decision to focus on BAT students aligned with my personal research interests and expertise in the field of teacher education and professional development. By conducting this study within this context, I contributed meaningful insights to the broader discourse on effective feedback practices in teacher preparation programs, potentially informing curriculum design, instructional strategies, and assessment practices.

In summary, the choice to include first-year students enrolled in the BAT course as participants in my study was driven by a multitude of factors. These factors included the foundational nature of the course, the breadth of topics covered, the unique perspective

of first-year students, the combination of theoretical and practical components, the potential for program improvement, and the alignment with my research interests and expertise in teacher education.

4.6 DATA COLLECTION METHODS

Different types of data collection methods can be used to collect qualitative data. These methods include, among others, documentation, observation, focus groups and interviews (Merriam, 2009). Within the qualitative framework, I found semi-structured interviews and focus group discussions most appropriate for this study. This study sought to explore first-year students' experiences of receiving e-formative feedback during ERL at a selected teacher education university. I began the data collection process when students were allowed back on campus because COVID-19 had eased down, and lockdown restrictions were lifted. Therefore, I chose to collect data through face-to-face semi-structured interviews and focus group discussions. Face-to-face interviews gave me access to body language and non-verbal cues which were at risk of being missed had I used technology-mediated data collection methods (Burke & Patching, 2021) – I had planned to use Zoom to conduct semi-structured interviews and MS Teams for the focus group discussions if I had collected data during university closure as I would not be able to meet the study participants face-to-face.

4.6.1 Interviews

Collecting research data through interviews is a characteristic of many qualitative studies (Barrett, 2018). Interviews are methods of data collection through oral quizzes using a set of preplanned core questions (Mason, 2012). Interviews have the potential to help a researcher collect rich and detailed data about a particular phenomenon (Barrett, 2018). An interview methodology assumes that interviews usually involve a conversation with a purpose (Creswell, 2012). This means that the interviewer must use key objectives to stimulate the interviewee to talk about particular aspects, while he/she listens carefully to what is being said, including how it is being said. In this way, the interviewer is able to interpret and obtain clarity, where necessary, on what has been said (Mason, 2002).

4.6.1.1 *Semi-structured interviews*

A semi-structured interview has features of both structured and unstructured interviews and therefore uses both closed and open questions (De Vos, Delport, Fouché & Strydo, 2005). As a result, it has the advantage of both methods of interviews. Semi-structured interviews allow researchers to gain insights into the views of the study participants (Seidman, 2013). Prior to conducting semi-structured interviews, researchers develop core questions which they will use as guidance to ensure that the same areas are covered by all study participants (De Vos et al., 2005). Like other data collection methods, semi-structured interviews have advantages and disadvantages. One notable advantage is that a semi-structured interview allows the researcher to probe and explore as the study is conducted and the participants' own words are captured (Holloway, 2005b). This data collection method focuses on participants' actual experiences more than general beliefs and values (King & Horrocks, 2010). During the interview, non-verbal cues are noted and recorded, and the researcher can easily clarify and/or rephrase questions that are not clear during the interview (Holloway, 2005b). One notable limitation of a semi-structured interview is that it requires the researcher to establish rapport with the participants to gain more information (Greef, 2011). Moreover, conducting interviews is time consuming, particularly transcription and analysis of data (Holloway, 2005b).

In this study, I used semi-structured interviews as a method to collect data about first-year students' experiences of receiving e-formative feedback during ERL. This data collection method was suitable for my study because it allowed me to ensure meaningful participation from the study participants, specifically because this method enhanced the participants' greater freedom, control and comfort during the interviews. A face-to-face semi-structured interview is thought to be particularly comfortable for study participants because of the greater ability it affords them to control a conversation (Madell & Muncer, 2007; Gibson, 2020). Semi-structured interviews allowed for flowing discussions and helped me obtain detailed information about how first year students' experiences and use e-formative feedback to inform their remote learning during ERL.

In this study, thirty-six first-year student teachers were interviewed for 30 minutes each. The semi-structured interviews took the form of a friendly conversation, while I tried to

piece together different parts of the stories into a cohesive meaning (Shakedi, 2012). I began each interview with a short explanation of the research, followed by a few personal background questions. Theming the interviews with the study participants was an enquiry into their experiences of receiving e-formative feedback, how they used it to inform their remote learning and why they used it the way they did. An interview guide with questions which did not follow a specified order was used to help in focusing the interviews on the topic without constraining the participants to a particular format (see Appendix A). This allowed the participants to voice issues and questions that I did not think of prior to the interviews (e.g., valence of e-formative feedback – students' experiences of receiving negative or positive e-formative comments on their work). The interview questions focused on students' experiences of receiving e-formative feedback during ERL in relation to the following themes:

- Accessibility of e-formative feedback
- Timing of e-formative feedback
- Specificity of e-formative feedback
- Clarity of e-formative feedback
- Emotionality of formative feedback
- Valence of e-formative feedback

When conducting one-on-one semi-structured interviews, I kept in mind the issues of anonymity and confidentiality. At the beginning of each interview, I assured each participant that their responses to the interview questions would be anonymous and that the information they would share with me would be held securely and would not be disclosed to anyone else. This helped build trust between the study participants and I, thus the participants were free and expressive during the interviews. I briefed the participants about the contents of the interview. I also asked for permission to tape-record their interview responses. All interviews were audio-taped and transcribed. Transcripts of the interviews were returned to participants so that they could assess for clarity and peruse my interpretation of interview transcripts to check that I did not misinterpret or

incorrectly cite what they had shared in a particular context. Once the semi-structured interviews were conducted, I conducted focus group interviews.

4.6.1.2 *Focus group interviews/discussions*

A focus group interview refers to a discussion in which an interviewer asks a set of open-ended questions to a small group of the target population (Zhu, Lucas, Becerik-Gerber & Southers, 2020). The name is derived from the fact that the selected groups are “focused” on a given topic (Zhu et al., 2020). Therefore, the selection criteria for participants in focus group interviews include having domain knowledge of the topic, being within the age range, and being comfortable talking to the interviewer and other participants (Richardson & Rabiee, 2001). Compared to individual interviews, the main advantage of focus group interviews lies in that the group can foster a synergy, which results in more than the sum of each individual's output (Richardson & Rabiee, 2001; Zhu et al., 2020).

In this study, I employed focus group discussions as the second method to collect data about first-year students’ experiences of receiving e-formative feedback during ERL. This data collection method was most suitable for my study because it enabled me to widen the range of responses from the participants and to activate forgotten experiences that were not mentioned during the semi-structured interviews (e.g. what participants view as important between marks and corresponding e-formative comments; the effect of the amount of feedback comments in students’ e-learning), thus enhancing the depth of my research data. Moreover, focus groups were most suitable for my study because they allowed for flowing discussion, in which I allowed each group discussion to unfold as the participants spoke about their experiences of receiving e-formative feedback during ERL. I only stopped the conversations when I felt that the participants were being repetitive or veering off the topic.

For this study, I divided the thirty-six participants into two groups. Each group of eighteen participants took part in a focus group discussion for 90 minutes. Conducting two focus group discussions allowed me to gather insights into the validity of the information provided during the discussions by assessing the responses across the two groups of participants. Each focus group discussion took the form of a friendly conversation in a

large, open and ventilated room on campus at the selected teacher education university. I developed an interview guide which helped to direct the focus group discussions (see Appendix B). Following the suggestion of Gibson (2020), the guide consisted of four parts. The first part covered the beginning of the discussion, including a welcome message, an explanation of the interview purpose and use of data, obtainment of participants' verbal consent to participate in the study and be recorded, and self-introduction of the study participants (Gibson, 2020). In the second part, I asked the participants a warm-up question: “How would you define e-formative feedback?” The purpose of this question was to motivate the study participants to share their understanding of e-formative feedback before they could discuss their experiences of receiving e-formative feedback during ERL. Subsequently, the third part contained a series of questions to further provoke participants’ thoughts about the phenomenon under study (Gibson, 2020). The purpose of these questions was to create a discussion about the participants’ experiences of receiving e-formative feedback through the university’s Canvas LMS during ERL. Finally, the last part of the focus group discussion included summarising the discussion and thanking the participants for their contribution to the study.

In summary, in this study, I used semi-structured interviews and focus group discussions as my data collection methods. Interviews and focus group discussions were conducted face-to-face at an open-ventilated venue at the selected teacher education university. During the data collection process, study participants had to come to the teacher education campus. Through participants’ information sheets, I informed the study participants that they would be responsible for any travelling costs they would incur as a result of their participation in the study. However, most semi-structured interviews took place in the afternoon when the participants had finished attending their classes, so participants did not incur any travelling costs outside their normal transport costs. In instances where the study participants experienced challenges with coming to campus, the interviews were scheduled for another day. Participation in this study was voluntary, thus only first-year students who were available and willing to participate took part in the study.

For the relevance of this study, semi-structured interviews and focus group discussions were chosen as data collection methods because of the advantages that they provided. The table below provides a layout of the procedures that I used to collect the data.

Table 4.2: Procedures used to collect data

DATE STARTED	ITEM	ACTION	DATE COMPLETED
1 April 2023	Head of School, and Registrar information sheets and consent letters.	Sent information sheets and consent letters to the Head of School and the Registrar asking permission to conduct my study.	21 April 2023
22 April 2023	BAT course coordinator information sheet and consent letter	Sent information sheet and consent letter to the BAT course coordinator. Received a list of potential participants and their contact details.	28 April 2023
29 April 2023	Students' information sheets and consent letters.	Sent information sheets and consent letters to potential student participants.	29 April 2023
17 May 2023	Students' consent letters.	Received written consent from some of the students to whom I sent information sheets and consent letters.	17 May 2023
22 May 2023	Students' information sheets and consent letters.	Sent information sheets and consent letters to more potential student participants.	22 May 2023
30 May 2023	Students' consent letters.	Received written consent from students.	30 May 2023
2 June 2023	Meeting.	Meeting with potential participants to explain the study, what their participation entails and address any concerns.	2 June 2023
5 June 2023	Semi-structured interviews	Conducted interviews.	30 June 2023
10 July 2023	Focus group discussions	Conducted focus group discussions	14 July 2023

As can be seen on the table above, the data collection period coincided with the gradual reopening of campus, marking a transitional phase in the educational landscape. This timing was particularly significant as it allowed me to capture the experiences of the first cohort of students who received e-formative feedback through the Canvas LMS during ERL. Although the collection of data occurred as COVID-19 restrictions were easing and blended learning was being introduced at the selected institution, the participants' experiences of receiving e-formative feedback during campus closure were still fresh in their minds. This recency was crucial, as it enabled me to gather vivid and detailed accounts of their experiences of e-formative feedback experiences when teaching and learning was exclusively remote.

My research spans a significant period, beginning with the onset of ERL in early 2020 and extending through the gradual transition back to campus in 2023. While I did not track individual student evolution over time, I captured a broad, retrospective view of students' experiences across this extended period. The data collection in June 2023 allowed me to gather rich, detailed accounts of students' experiences with e-formative feedback throughout the entire ERL period. Participants were able to reflect on their journey from the sudden shift to ERL in 2020, through the various phases of adaptation, to the eventual return to a more blended learning environment. This extended timeframe covered by my study allows for a longitudinal perspective on the implementation and impact of e-formative feedback during ERL. It encompasses the initial challenges faced by first-year students in adapting to e-feedback mechanisms, the gradual improvements and adjustments made over time, and the lasting effects as the institution transitioned back to partial in-person learning.

Moreover, by conducting my study in June 2023, I was able to capture not just the immediate reactions to e-formative feedback, but also the long-term reflections of students who had experienced receiving e-formative feedback over multiple semesters during ERL. This retrospective longitudinal view provides insights into how perceptions and utilisation of e-formative feedback evolved over the course of the ERL period. In essence, while my data collection occurred at a single point in time, the scope of experiences it captures spans a significant longitudinal period. This approach allowed me

to construct a comprehensive timeline of e-formative feedback experiences during ERL, from its hasty implementation to its refined practice, offering valuable insights into its long-term impact on student learning and engagement.

4.7 METHOD OF DATA ANALYSIS

In this qualitative case study, I employed Thematic Analysis (TA) to analyse data collected from semi-structured interviews and focus group discussions. TA is a versatile method of qualitative analysis widely used in both primary research and systematic reviews (Braun & Clarke, 2021). Fundamentally, TA is defined as "a method for systematically identifying, organising, and offering insight into patterns of meaning (themes) across a data set" (Braun & Clarke, 2012, p. 57). It is an interpretive process where the researcher methodically examines data to identify patterns, aiming to describe and interpret the phenomenon under investigation (Roberts, Dowell & Nieet, 2019).

This study, grounded in the interpretive paradigm and drawing from the principles of Social Constructivism, Feedback Intervention Theory (FIT), and Feedback Delivery Theory (FDT), found TA to be an appropriate method of data analysis. TA enabled me to examine how first-year students construct meaning from the e-formative feedback they receive on their e-formative assessments, as well as how they utilise this feedback to inform and modify their remote learning practices during Emergency Remote Learning (ERL) (Terry, Hayfield, Clarke & Braun, 2017; Braun, Clarke, Hayfield & Terry, 2019). The flexibility of TA allowed for a nuanced exploration of students' experiences, perceptions, and adaptations in response to e-formative feedback, aligning well with the study's theoretical framework and research objectives (Braun & Clarke, 2022). This approach facilitated a rich, detailed, and complex account of the data, enabling the identification of key themes that illuminate the role of e-formative feedback in the context of ERL.

Thematic Analysis (TA) is fundamentally an iterative, qualitative method for examining data that aims to achieve increased abstraction (Braun & Clarke, 2021). It begins with a line-by-line coding process, culminating in a set of themes that describe the phenomenon under study and its interrelationships (Braun et al., 2019). TA extends beyond mere word counting (content analysis) to explore both explicit and implicit meanings within the data

(Braun & Clarke, 2022). This analytical process commences during data collection and persists throughout the stages of transcription, repeated reading, analysis, and interpretation of the data (Terry et al., 2017). In the following sections, I will detail the specific steps I took in analysing the data for this study, adhering to contemporary TA methodologies.

4.7.1 Step 1: Becoming familiar with the data

After collecting data through semi-structured interviews and focus group discussions, I engaged in the process of immersing myself in the data. This immersion is a crucial step in qualitative data analysis, as it allows researchers to become intimately familiar with the data, identify patterns, and derive meaningful insights (Braun & Clarke, 2021).

Firstly, I transcribed the participants' responses from the audio recordings of the semi-structured interviews and focus group discussions into written form. Transcription is an essential step in qualitative research as it transforms verbal data into a format that can be more easily analyzed and coded. This process ensures that the participants' voices and perspectives are accurately captured and preserved for further analysis. After transcribing the data, I engaged in a thorough reading of the transcripts. I read the transcripts twice, in order to fully immerse myself in the data and gain a comprehensive understanding of the participants' responses. During this process, I actively identified patterns and meaning within the data. This involved looking for recurring themes, similarities, and differences across the participants' responses, as well as noting any significant or striking statements or perspectives.

As I read the transcripts, I also took notes along the way. Note-taking is an important aspect of qualitative data analysis, as it allows researchers to capture their thoughts, observations, and initial interpretations as they engage with the data. These notes can include potential codes, emerging themes, connections between different responses, or any other insights that arise during the immersion process. By immersing myself in the data, identifying patterns, and taking notes, I was engaging in the initial stages of thematic analysis, laying the foundation for further coding and theme development (Braun & Clarke, 2021).

4.7.2 Step 2: Code generation

After immersing myself in the data by reading through the transcripts multiple times and taking notes, the next step was to generate initial codes. Coding is a fundamental process in qualitative data analysis that helps to identify and organise relevant features within the data. As described by Braun and Clarke (2006), generating initial codes involved "coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code" (p. 87). This meant that I carefully went through each transcript line by line, identifying and labeling relevant pieces of information or meaningful segments using concise codes or labels.

The main focus during this step was to reduce the data and produce codes - in other words, to come up with shorthand labels or "codes" that could accurately describe and capture the essence of the content within my data (Attride-Stirling, 2001; Braun & Clarke, 2022). These codes served as a way to summarise and categorise the data into meaningful units, making it easier to analyse and identify patterns and themes. It is important to note that during this initial coding phase, I remained open-minded and did not try to fit the data into any predetermined categories or themes. Instead, I let the codes emerge naturally from the data itself, allowing the participants' voices and perspectives to guide the process. Furthermore, this step focused on the development of themes, which Braun and Clarke (2021) describe as the first and most basic level of analysis that is used as an organizational tool. By breaking down the data into codes, I was laying the foundation for identifying broader themes that could help answer my research questions and provide insights into the phenomena under study.

Throughout the coding process, I maintained a systematic and thorough approach, ensuring that I coded all relevant segments of the data across the entire data set. This involved meticulously going through each transcript, line by line, and assigning codes to capture the essence of the participants' responses, experiences, and perspectives.

The initial codes I generated during this step served as building blocks for the subsequent stages of analysis, where I would further refine, organise, and interpret these codes to

identify overarching themes and develop a comprehensive understanding of the research findings.

4.7.3 Step 3: Themes generation

After generating initial codes from the data, the next step involved searching for themes - a crucial phase in Thematic Analysis. As Braun and Clarke (2006) describe, theme generation is the process of "collating codes into potential themes, gathering all data relevant to each potential theme" (p. 87). During this step, I carefully reviewed the codes I had previously created, looking for patterns and connections among them. I scrutinised the codes, identifying areas of similarity or overlap, as well as any potential relationships or hierarchies that might exist between them.

As I examined the codes, I began to organise and group them into broader, overarching categories or potential themes. These themes represented higher-level concepts or ideas that captured the essence of various related codes and provided a more comprehensive understanding of the data. Throughout this process, I remained mindful of the research questions and objectives, ensuring that the potential themes I identified were relevant and could contribute to answering the overarching inquiries of the study. I also paid attention to the prevalence and significance of particular codes, as well as any contradictions or tensions that might exist within the data.

Once I had identified potential themes, I gathered all the relevant coded data extracts and began collating them under each respective theme. This involved carefully reviewing the data and ensuring that the coded segments aligned with the proposed themes, while also looking for any additional insights or nuances that might further enrich or refine the themes.

It is important to note that during this stage, the themes were still tentative and subject to further refinement and revision. I approached the process with an open mind, remaining flexible and willing to modify or discard themes as needed, based on the ongoing analysis and interpretation of the data. As I progressed through this iterative process, I continuously reviewed and refined the themes, ensuring that they accurately captured the essence of the data and provided a coherent and meaningful narrative. I also considered

the relationships and connections between the different themes, exploring how they might intersect or build upon one another.

The themes generated during this step formed the foundation for the final stage of TA, where I would further refine and define the themes, ultimately producing a comprehensive analysis and interpretation of the research findings.

4.7.4 Step 4: Reviewing themes

In this step, I engaged in a thorough review and refinement of the themes identified in the previous stage. The goal was to ensure that the themes were coherent, representative of the data, and provided a comprehensive and accurate interpretation of the research findings.

Firstly, I reviewed the themes by checking if they worked in relation to the coded extracts from Step 1 and the entire dataset. This involved going back to the original coded data and ensuring that the themes accurately captured and represented the essence of the coded segments. To refine the draft themes, I conducted a two-level analysis of the codes. In the first level, I read through all the codes associated with each theme to determine if I had developed a coherent pattern. During this process, I assessed whether the codes within a particular theme were logically connected and formed a meaningful and consistent narrative. If I identified that I had developed a coherent pattern, I moved on to the second level of analysis. However, in instances where some codes did not seem to fit within a particular theme, I critically examined whether the issue lay with the theme itself or with the specific codes and information related to that theme.

To complete the second level of analysis, I read through the entire dataset once again. This comprehensive review allowed me to ensure that the themes accurately represented the overall data and that no relevant information, or perspectives were missed during the initial coding process. By revisiting the dataset, I was able to check if there were any additional data segments that needed to be coded or if any existing codes required adjustment or reassignment to different themes. This iterative process ensured that the themes were grounded in the data and captured the full range of perspectives and experiences shared by the participants.

Throughout this review and refinement process, I maintained a critical and reflexive approach, continuously questioning and refining the themes to ensure their coherence, relevance, and ability to provide meaningful insights into the research questions. If necessary, I modified or merged themes, or even created new themes, based on the emerging patterns and interpretations that arose from this in-depth analysis. The goal was to develop a robust and well-supported thematic structure that accurately represented the richness and complexity of the data.

4.7.5 Step 5: Defining and naming themes

After a thorough review and refinement process, I arrived at a final list of themes that accurately represented the patterns and insights derived from the data. At this stage, it was crucial to clearly define and name each theme to ensure a comprehensive and coherent understanding of the research findings.

The process of defining the themes involved formulating a precise and concise explanation of what each theme encapsulated. As Braun and Clarke (2022) suggest, this step aimed to clarify "exactly what [I] meant by each theme and figuring out how it helped [me] understand the data" (p. 92). It was an exercise in distilling the essence of each theme and articulating its core meaning and significance within the broader context of the research. To define the themes, I carefully examined the coded data extracts and patterns associated with each theme, identifying the central concepts, ideas, and perspectives that underpinned it. I focused on capturing the fundamental essence of each theme, ensuring that the definition accurately represented the range of experiences, perceptions, and insights within the data.

Furthermore, I considered how each theme contributed to addressing the research questions and objectives, determining the specific aspects of the data and the overarching inquiries that the theme illuminated. This process helped me situate the themes within the broader context of the study, establishing their relevance and importance in advancing the understanding of the phenomena under investigation.

Alongside defining the themes, I also engaged in the process of naming them. Naming the themes involved crafting succinct and easily understandable labels that effectively

captured the core essence of each theme. As Braun and Clarke (2006) suggest, the goal was to arrive at names that were "concise, punchy, and immediately give the reader a sense of what the theme is about" (p. 93). In naming the themes, I aimed to strike a balance between conciseness and descriptiveness, ensuring that the names were clear and self-explanatory while also accurately reflecting the underlying meaning and scope of each theme.

Throughout this process, I maintained a critical and reflexive approach, continuously revisiting and refining the definitions and names to ensure they accurately represented the data and aligned with the broader research objectives. I was mindful of the importance of clearly defining "what themes are and what they are not" (Braun & Clarke, 2006, p. 92), as this clarity and precision are essential for effectively communicating the research findings and facilitating a deeper understanding of the phenomena under study. By meticulously defining and naming the final themes, I aimed to produce a coherent and well-articulated thematic structure that could serve as a solid foundation for the subsequent stages of analysis, interpretation, and reporting of the research findings.

The themes that emerged from the data collected in this study are listed below:

- Accessibility of e-formative feedback
- Timing of e-formative feedback
- Specificity of e-formative feedback
- Valence of e-formative feedback
- Amount of e-formative feedback
- Emotionality of e-formative feedback
- Clarity of e-formative feedback
- Focus on marks achieved
- Self-regulated learning and motivation

4.7.6 Step 6: Producing the report

After defining and naming the final themes, I embarked on the crucial step of producing the report, which Braun and Clarke (2006) describe as "selection of vivid, compelling

extract examples, final analysis of selected extracts, relating back of the analysis to the research questions and literature, producing a scholarly report of the analysis" (p. 87). This step involved synthesising the findings, providing an in-depth analysis, and crafting a comprehensive narrative that addressed the research questions and contributed to the existing body of knowledge.

During this stage, I carefully analysed the data extracts associated with each theme, selecting the most vivid and compelling examples that effectively illustrated the essence of the theme and captured the participants' perspectives and experiences. These extracts served as the foundation for my analysis, providing tangible evidence and rich insights to support my interpretations and arguments. I engaged in a final, in-depth analysis of the selected extracts, delving deeper into their meanings, implications, and connections to the broader research questions and objectives. This involved critically examining the extracts through the lens of the theoretical frameworks, existing literature, and my own analytical insights, aiming to uncover nuanced understandings and contribute to the advancement of knowledge in the field.

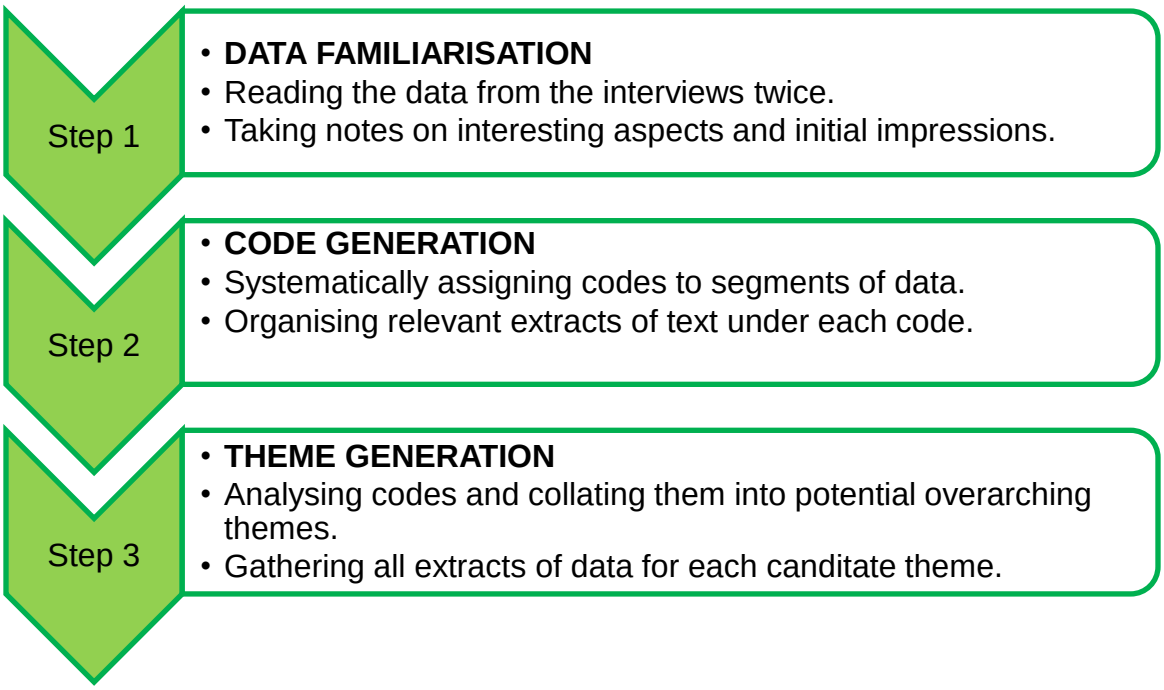
Throughout this process, I maintained a constant dialogue between the data, the research questions, and the relevant literature, ensuring that my analysis was grounded in the empirical evidence while also situating it within the broader scholarly discourse. I paid particular attention to identifying connections, contradictions, and gaps in the existing knowledge base, using the findings to challenge or expand upon established theories and conceptualisations.

In producing the report, I aimed to craft a coherent and compelling narrative that wove together the themes, data extracts, and analytical insights, presenting a comprehensive and persuasive account of the research findings. I focused on creating a logical and non-repetitive flow, guiding the reader through the various themes and their interconnections while avoiding redundancy and maintaining clarity and concision. To achieve this, I employed a range of strategies, such as using vivid language, incorporating relevant theoretical perspectives, and drawing upon my own critical reflections and interpretations. I sought to strike a balance between presenting a rigorous and scholarly analysis while

also crafting an engaging and accessible narrative that would resonate with the intended audience.

Ultimately, the goal of this final step was to produce a comprehensive and impactful report that not only presented the findings but also contributed to the broader scholarly discourse by offering new insights, challenging existing assumptions, and providing a solid foundation for future research and theoretical development.

The diagram below provides a summary of how I used Thematic Analysis to analyse data for this study:



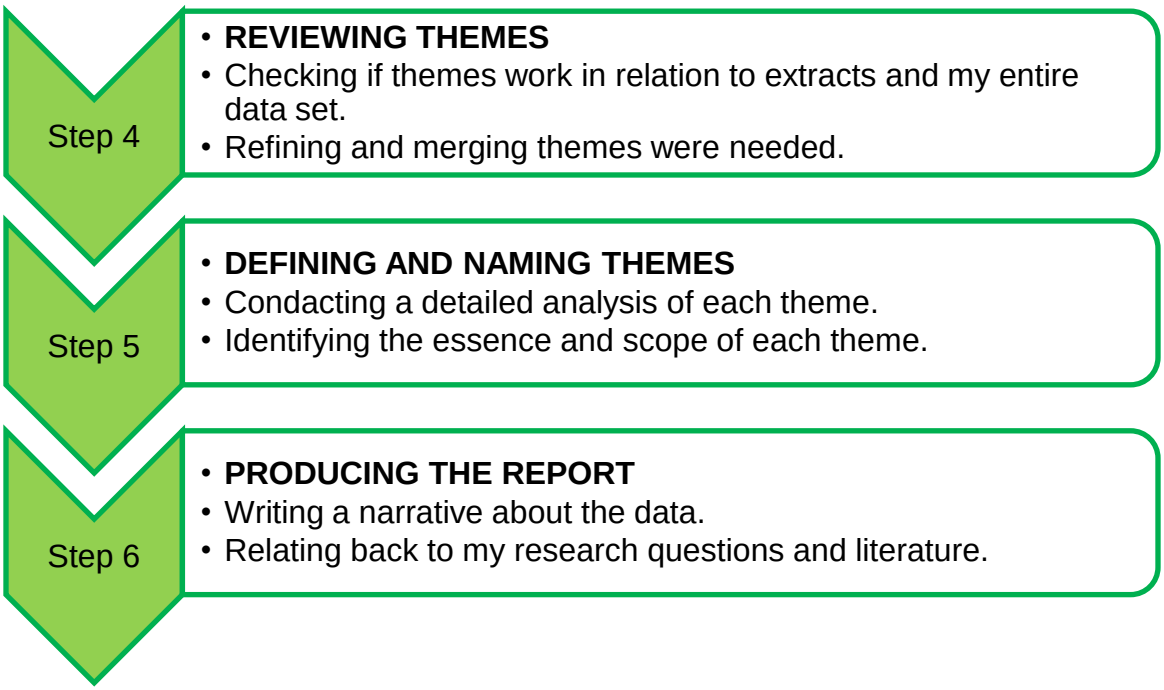


Figure 4.1 Method of data analysis (Thematic Analysis)

Throughout the various steps of TA, I followed a rigorous and systematic approach to analyse the data generated through semi-structured interviews and focus group discussions. This iterative and non-linear process allowed me to inductively analyse the qualitative data about first-year students' experiences of receiving e-formative feedback during ERL. The goal was to discover and interpret key patterns and meanings in students' lived experiences, providing valuable insights into their perspectives and challenges related to e-formative feedback in the context of ERL.

As I progressed through the steps of TA, which included data familiarisation, generating initial codes, searching for themes, reviewing and refining themes, defining and naming themes, and finally producing the report, I remained mindful of the importance of ensuring that the generated themes accurately represented the entirety of the data. To validate the themes and enhance the reliability of the analysis, I engaged in an iterative process of evaluation and refinement, involving my supervisor as a critical collaborator. Throughout the various stages of coding and theme development, I sought my supervisor's feedback and guidance to assess whether the emerging themes were compatible with the data generated from the interviews and focus group discussions. This collaborative evaluation

process was crucial in building reliability and ensuring that the themes accurately captured the essence of the students' experiences and perspectives. My supervisor's expertise and fresh perspective helped me to critically examine the themes, identify potential gaps or inconsistencies, and refine the themes as needed to ensure a comprehensive and accurate representation of the data.

By incorporating my supervisor's feedback, I was able to "build reliability in themes analysis coding" (Hosmer, 2008, p.52), enhancing the credibility and trustworthiness of the findings. This iterative process of evaluation and refinement was essential in maintaining the rigor and quality of the Thematic Analysis, ensuring that the final themes were well-grounded in the data and reflected the complexities and nuances of the participants' lived experiences. Through this inductive and in-depth process of coding and theme development, I aimed to uncover the key patterns and meanings that emerged from the data, ultimately providing a rich and nuanced understanding of first-year students' experiences of receiving e-formative feedback during ERL. The validation steps, involving collaborative evaluation with my supervisor, ensured that the findings were reliable, trustworthy, and accurately represented the voices and perspectives of the participants.

4.8 TRUSTWORTHINESS

Trustworthiness is a term used in qualitative research to measure the degree to which the data generated from a study is believable (Creswell, 2009). In research, data may be trusted if there is evidence of how it was collected and how conclusions were reached. Qualitative research does not usually require standardised instruments to check the trustworthiness of the data. This is because qualitative research usually uses smaller and non-random samples (Creswell, 2009). However, the trustworthiness of a qualitative enquiry is crucial in determining the worth of research. In this study, I used open coding to ensure the trustworthiness of the data collected from the semi-structured interviews and focus group discussions. Open coding is the process of breaking down, examining, comparing, conceptualising, and categorising data (Henning, 2007). Conducting line-by-line coding helps researchers verify and saturate categories, minimises the chance of missing an important category, and ensures the grounding of data categories beyond

mere impressionism (Henning, 2007). The result is a rich, dense theory with the assurance that nothing has been left out. It also corrects the forcing of ‘pet’ themes and ideas (Henning, 2007). Below I discussed how I conducted the open coding process in my study.

I began by carefully reading through each transcript of the interviews and focus group discussions. During this initial read-through, I identified and labeled concepts that seemed relevant to my research questions. These initial codes were descriptive and stayed close to the participants' own words, a process Charmaz (2014) refers to as "in vivo coding." This approach helped me remain grounded in the data and avoid imposing preconceived categories onto the participants' experiences. As I progressed through the data, I constantly compared new incidents with previous ones, both within and across transcripts. This constant comparative method, as described by Corbin and Strauss (2015), allowed me to refine my codes and begin to see patterns emerging from the data. I used memo-writing to keep track of my thoughts and insights during this process, which later proved invaluable in developing more abstract concepts and themes (Saldaña, 2021). Throughout the open coding process, I remained open to unexpected findings and was prepared to create new codes as needed. This flexibility is a key aspect of open coding and allowed me to capture the full range of students' experiences with e-formative feedback during ERL, including aspects I might not have anticipated based on the existing literature.

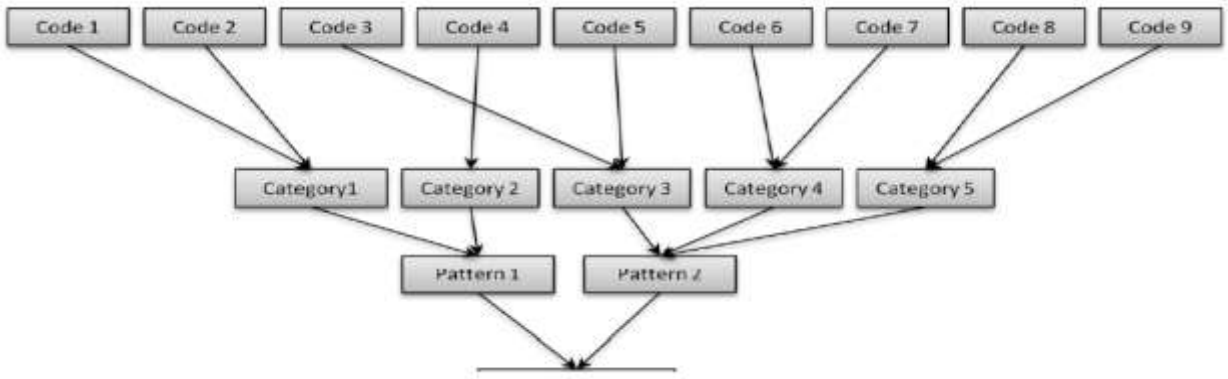


Figure 4.2 Open coding flowchart (Corbin & Strauss, 2015)

I further established the trustworthiness of my qualitative research through using the following four strategies: credibility, transferability, dependability and confirmability.

4.8.1 Credibility

Credibility refers to an evaluation of whether or not data production and data analysis are believable and trustworthy (De Vos et al., 2005). According to De Vos et al. (2005), credibility is parallel to internal validity- the analysis of whether or not the findings are equivalent to reality. This study is rooted in the interpretive paradigm which operates with the assumption that there is no single reality (Shuttleworth, 2008). This is because each individual constructs his/her own reality based on the meaning they construct in a particular context (Shuttleworth, 2008). However, to address the issue of credibility in this study, I used two data collection methods (semi-structured interviews and focus group discussions) and provided a clear outline of how I analysed the data collected through these methods. The use of two data collection methods, instead of one, enabled me to develop deep knowledge of the phenomenon understudy.

Furthermore, the trustworthiness of data collected through interviews and group discussions may be questioned. Therefore, to ensure the trustworthiness of data in this study, I employed the iterative questioning strategy (Shenton, 2004). During the semi-structured interviews and focus group discussions, I used probes to elicit detailed data and iterative questioning in which I returned to previously raised information and rephrased questions in order to detect falsehood of information that had been previously provided and/or the difference between new and old information.

To further enhance the credibility of my study, I discussed the findings and analysis of the data with my supervisor who helped me link the data that was collected in the study with the literature that I reviewed in Chapter 2. In addition, after transcribing the data from audio-recorded data to written form, I sent it back to the participants through emails so that they could check if the written form was the exact reflection of what they had reported in the interviews. This kept me from being biased and from including my personal views in the data (Nieuwenhuis, 2007).

4.8.2 Transferability

Transferability refers to the evaluation of whether the findings of a study can be generalized or extended to other contexts (Shenton, 2004). In other words, it assesses the degree to which a particular situation or phenomenon under study can be directly applied to different settings or populations (Shenton, 2004). However, in this qualitative study, the intention was not to transfer the knowledge to other contexts indiscriminately but rather to provide an in-depth exploration of first-year students' experiences of receiving e-formative feedback during ERL at a selected teacher education university. To enhance the transferability of the findings, I grounded the study within relevant theoretical frameworks, specifically Social Constructivism theory, Feedback Intervention Theory (FIT), and Feedback Design Theory (FDT). These theories underpinned my understanding of first-year students' experiences with e-formative feedback, providing a solid theoretical foundation for interpreting and contextualising the findings.

Furthermore, I addressed transferability by providing detailed descriptions of the research methods, contexts, and underlying assumptions of the study. This rich contextual information allows readers to assess the potential applicability of the findings to other situations or settings they may be familiar with (Shenton, 2004). By providing a comprehensive understanding of the study's context and methodological choices, readers can make informed judgments about the transferability of the findings to their specific contexts of interest. In addition, I discussed relevant literature relevant to this study. This information serves as a valuable resource for readers interested in applying the study's outcomes to other situations (Shenton, 2004). By situating the findings within the broader scholarly discourse and theoretical landscape, readers can evaluate the potential transferability and relevance of the insights to their respective contexts.

It is important to note that transferability in qualitative research does not imply a direct generalisation of findings but rather a contextualised exploration of the potential applicability to other settings. By providing rich descriptions, theoretical grounding, and contextual details, this study aims to facilitate transferability judgments by readers, enabling them to assess the relevance and applicability of the findings to their specific contexts of interest. While the primary focus of this study was to gain an in-depth

understanding of first-year students' experiences at a selected teacher education university, the measures taken to enhance transferability allow for the potential extension of insights to other relevant contexts, contributing to a broader understanding of e-formative feedback practices in online learning environments.

4.8.3 Dependability

Dependability, akin to reliability, refers to the evaluation of whether research findings are consistent and could be replicated under similar circumstances (De Vos et al., 2005). In qualitative research, establishing dependability can be challenging, as the study participants are humans, and human behavior can be influenced by various contextual and personal factors. However, this study acknowledged this potential issue and implemented several techniques to enhance dependability.

Firstly, I provided a thorough explanation of the research paradigm employed, which was the interpretive paradigm grounded in interpretivism theory. This transparency allows readers to understand the philosophical underpinnings and assumptions that guided the research process, enabling them to assess the study's dependability within the chosen paradigm. Secondly, to strengthen the dependability of the data collection process, I employed two complementary methods: semi-structured interviews and focus group discussions. The triangulation of these methods allowed for a more comprehensive understanding of the participants' experiences and perspectives, reducing the potential for biases or limitations associated with a single data collection approach. Furthermore, I meticulously described the method of data analysis, adopting a Thematic Analysis approach based on the framework proposed by Braun and Clarke (2006). By providing a clear and well-established analytical framework, readers can evaluate the systematic and rigorous process through which the findings were derived, enhancing the dependability of the study's results.

While acknowledging the inherent challenges in establishing dependability in qualitative research involving human participants, this study implemented multiple strategies to address this concern. By transparently communicating the research paradigm, triangulating data collection methods, and adhering to a robust analytical framework, I

aimed to enhance the study's dependability, increasing the likelihood that similar findings could be obtained under comparable circumstances. It is important to note that dependability in qualitative research does not equate to replicating findings verbatim but rather achieving consistent and trustworthy interpretations within the given context and research design. By clearly articulating the methodological choices and processes, this study provides a foundation for assessing its dependability and facilitating potential transferability to other relevant contexts.

4.8.4 Confirmability

Confirmability refers to the extent to which the findings of a research study can be corroborated or supported by others (Lincoln & Guba, 1990). This concept is closely linked to objectivity – the degree to which the researcher acknowledges and addresses their individual subjectivity or potential biases (Shenton, 2004). To ensure confirmability in this study, I adopted several techniques recommended by Khanare (2009, p. 40):

- Critical questioning: I engaged my supervisor, who served as an external auditor, to critically question and evaluate my interpretations of the data. This process helped to identify and mitigate potential biases or assumptions that could influence the findings.
- Negative case analysis: During the data analysis process, I actively sought and explored negative cases or alternative instances that contradicted or challenged the emerging themes. This approach ensured that the findings were grounded in the data and accounted for diverse perspectives.
- Judgement-free notes: Before developing categories or themes, I maintained a separate set of 'judgement-free' notes, documenting my initial observations and impressions without premature interpretations. This practice helped to minimise the influence of preconceptions and allowed for a more objective analysis.
- Auditing strategies: I conducted a thorough audit of the data generation and analysis strategies employed in the study. This self-evaluation process helped to ensure transparency, consistency, and adherence to established qualitative research practices.

Furthermore, throughout the study, I made a concerted effort to present a true and faithful reflection of the participants' experiences and perspectives. I assumed a neutral stance, actively seeking to ensure that the findings were not unduly influenced by my own personal views or biases. Additionally, my supervisor played a crucial role in critically questioning and evaluating my interpretations and analyses of the data generated through the two data collection methods (semi-structured interviews and focus group discussions).

By implementing these techniques and measures, I aimed to enhance the confirmability of the study's findings, ensuring that they are grounded in the data and can be corroborated or supported by others. The external auditing process, negative case analysis, judgement-free note-taking, and auditing of strategies collectively contributed to minimising potential biases and increasing the objectivity of the research process.

Confirmability is a crucial aspect of qualitative research, as it establishes the trustworthiness and credibility of the findings. By adopting these strategies, I strived to ensure that the study's conclusions are a true reflection of the participants' experiences and perspectives, rather than being unduly influenced by my subjective interpretations or preconceptions.

4.8.5 Triangulation

In social research, the term triangulation is used in a less literal sense – it involves the use of multiple methods and measures of an empirical phenomenon in order to overcome problems of bias and validity (Creswell, 2012; Cohen et al., 2011; De Vos et al., 2005). In other words, triangulation is the use of two or more data generation methods to produce a richer description of the studied phenomenon (Chidiebere, 2015). Triangulation arose from an ethical need to confirm the validity of the processes, and in case studies, it can be achieved by using multiple sources of data (Yin, 2003). It is an approach that utilises multiple data sources, multiple informants, and multiple methods (e.g., participant observation, focus groups, member checking, and so on), to gather multiple perspectives on the same issue to gain a more complete understanding of the phenomenon. Triangulation is used to compare data to decide if it corroborates (Creswell, 2003; Patton,

2002), and thus, to validate research findings. It is one of the most important ways to improve the trustworthiness of qualitative research findings.

In this study, I used two methods to collect data:

- Semi-structured interviews
- Focus group discussions

After communicating with the study participants and securing their written and verbal consent to participate in the study, I began the data collection process. I conducted thirty-six semi-structured interviews and two focus group discussions. Although using the two data collection methods helped me tackle issues of validity and reliability of the data collected, my methodological choices, beyond triangulation, helped me collect in-depth data and develop a comprehensive understanding of first-year students' experiences of receiving e-formative feedback during ERL. While I collected detailed data through semi-structured interviews, the focus group discussions enabled me to widen the range of responses from the participants and to activate forgotten experiences that were not discussed in the semi-structured interviews. This enhanced the depth of my research findings.

4.9 ETHICAL CONSIDERATIONS

Ethics, from a research point of view, are defined as widely accepted moral principles which offer rules and behavioral expectations from the researcher and respondents (Creswell, 2009). This qualitative case study required me to interact with human participants, thus the study required a high level of ethical consideration. McMillan and Schumacher (2010) maintain that full disclosure and deception are some of the many issues a researcher needs to take into consideration when dealing with human participants. A researcher is expected to be open and honest with the participants about all aspects of his/her study. In this study, I was open and honest about all aspects of my research. I used information sheets to inform the Head of School, the Registrar, the BAT Course Coordinator and first year students about my study.

Prior to embarking on this study, I requested permission to conduct my study from the Head of School and the Registrar at the Faculty of Education at the selected university. I sent formal letters and application forms requesting permission to conduct my study through emails. When I received approval to conduct my study, I sent an email to the BAT course coordinator in which I described my study and requested permission to invite first-year students who were enrolled for the BAT module to participate in this study. After securing the BAT course coordinator's written consent and permission to invite the students to participate in my study, I sent the students information sheets and consent forms, informing them about my study and asking them to participate in it. Students who were willing and available agreed to participate in my study and only then did I begin my research.

The other issue I considered regarding ethics is voluntary participation. McMillan and Schumacher (2010) argue that participants in a research project should not be compelled, coerced, or forced to participate. Participants should be informed that they may terminate their participation at any time and all risks associated with the study should be fully disclosed (McMillan & Schumacher, 2010). In this study, no student was forced to participate. Through the information sheets that I sent to first-year students, I explained that they were not forced to participate and that they could withdraw anytime during the study without any penalties. Before I commenced the study, I invited first-year students who agreed to participate in this study to a meeting which took place on campus in an open ventilated venue to explain the contents of the information sheets as well as discuss the nature and process of my study. In the meeting, students were encouraged to ask questions about any discomfort or confusion they were experiencing at that point. Confidentiality and anonymity could not be guaranteed in the focus group discussions, therefore students were informed of this and were told that prior to their participation in the focus group discussions, they would sign a digital agreement, stating that they would not share what would be discussed during the interview outside the focus group. I also assured the students that their participation in the study was anonymous as their names, or any personal information would not be disclosed in this study. In the study, all participants were referred to using pseudonyms. The raw data from the semi-structured

interviews and the focus group discussions was stored in a password-protected computer, with all identifying features removed.

Moreover, the university where this research was conducted requires researchers to apply for ethical clearance before undertaking any research project. Therefore, prior to embarking on this study, I took several careful steps to obtain ethical approval from the university's ethics committee for my study involving human participants. This process was crucial to ensure that my research adhered to all ethical standards and protected the rights and well-being of my participants.

First, I thoroughly reviewed the university's ethical guidelines and requirements for research involving human subjects. This initial step was essential in understanding the specific protocols and expectations set by the institution. I paid particular attention to areas such as informed consent, confidentiality, and data protection, as these were key aspects of my study involving student participants. Next, I drafted a comprehensive research proposal that outlined the objectives, methodology, and potential ethical considerations of my study. This proposal included detailed information about how I planned to recruit participants, the nature of their involvement, and the measures I would take to protect their privacy and ensure their comfort throughout the research process.

A critical component of my ethical application was the development of information sheets and informed consent forms. These documents clearly explained the purpose of the study, what participation would entail, any potential risks, and emphasised the voluntary nature of participation. I ensured that the language used was clear and accessible, avoiding jargon that might confuse potential participants. I also created detailed data management and storage plans. This included specifying how I would collect, store, and eventually dispose of data, ensuring compliance with data protection regulations. I outlined measures to anonymise participant data and secure it against unauthorised access. Another important step was preparing letters for participant recruitment and interview protocols. These documents demonstrated to the ethics committee how I would approach potential participants and conduct the research in an ethical manner.

Once all these documents were prepared, I compiled them into a comprehensive ethics application package. This package included my research proposal, information sheets, informed consent forms, data management plan, and any other supporting documents required by the university's ethics committee. Before submission, I carefully reviewed my application to ensure all required elements were included and that I had addressed all potential ethical concerns. I also consulted with my research supervisor to get feedback and ensure the application met all necessary standards.

Finally, I submitted my ethics application to the university's ethics committee. After submission, I remained prepared to respond to any queries or requests for additional information from the committee. This responsiveness was crucial in facilitating a smooth review process. Throughout this process, I maintained open communication with my supervisor and the ethics committee, ensuring that I was readily available to address any concerns or provide clarifications as needed. This proactive approach helped in securing ethical approval for my study involving human participants. The university's ethics committee granted unconditional approval for my study on first-year student teachers' experiences of receiving e-formative feedback during ERL (Protocol number: H23/03/05).

4.10 METHODOLOGICAL LIMITATIONS

As mentioned above, the study employed two data collection methods and Thematic Analysis was used to analyse the data for this study. Below I discussed the methodological limitations of the study.

4.10.1 Semi-structured interviews

Sometimes, in a semi-structured interview, participants may get distracted, and start discussing issues that are unrelated to the phenomenon being studied. Therefore, this requires the researcher to have interviewing skills so that he/she can guide the participants back to the focus of the interview (Creswell, 2012). Furthermore, the researcher (interviewer) may make the questions to be leading or prescriptive; therefore, semi-structured interviews require precise planning (Creswell, 2012). The semi-structured interview methodology was chosen for this study because it offered convenience in data collection (Creswell, 2012). This data collection method was most

suitable for my study because it helped me ensure meaningful participation from the study participants, specifically because this method allowed the participants greater freedom, control and comfort during the interviews. To ensure that the interview questions were not prescriptive, I asked my supervisors to check the interview schedule and to comment and give suggestions on how best I could ask the questions without being biased or without leading the study participants towards a particular answer. In instances where a participant discussed issues that were irrelevant to the study, I redirected their focus by asking a question that led them back to the topic of my study.

4.10.2 . Focus group interviews/discussions

One major limitation associated with focus group interviews or discussions is the potential for participants to feel inhibited from sharing sensitive ideas or experiences (Creswell, 2012). In some cases, participants may be reluctant to discuss certain topics or issues that could be valuable for the study. Consequently, the discussion may be restricted, affecting the overall depth and richness of the data generated (Creswell, 2012). Additionally, focus group discussions can be susceptible to bias towards more outspoken participants, making it challenging to capture the perspectives of less assertive or confident individuals (Creswell, 2012).

To mitigate these limitations, I encouraged active engagement and participation from all participants during the focus group discussions. I was cognisant that exerting too much control or allowing too little control over the discussions could impede the collection of rich data on first-year students' experiences of receiving e-formative feedback during ERL. Therefore, I facilitated an environment that promoted open and flowing conversations while minimising potential discomfort or power dynamics. In each focus group discussion, I aimed to strike a balance between guiding the conversation and allowing participants to freely share their experiences, perspectives, and insights. By adopting this approach, I aimed to create a safe and inclusive space where all participants felt comfortable contributing, thereby capturing a comprehensive range of experiences and minimising the risk of data being skewed towards a few dominant voices.

4.10.3 Limitations of Thematic Analysis

As mentioned above, I employed Thematic Analysis (TA) to analyse the data collected in this study. While this analytical approach has its merits, it is crucial to acknowledge a significant limitation associated with it. Braun and Clarke (2006) caution that TA may overlook nuanced data if the researcher is not meticulous and relies on it in isolation, without grounding it within a theoretical framework. This potential pitfall arises because TA, as a method, does not inherently prescribe any particular theoretical stance. Consequently, there is a risk of conducting the analysis in a theoretical vacuum, which could result in a superficial or incomplete understanding of the data.

However, in the context of this study, I opted to employ TA for a specific reason. Clarke and Braun (2018) highlight that TA, when executed rigorously, allows researchers to develop and interpret themes that are firmly grounded in the collected data. This data-driven approach was particularly valuable for my study, as it enabled me to identify and explore themes that emerged organically from the participants' perspectives and experiences, without imposing predetermined theoretical assumptions.

To mitigate the potential limitation of overlooking nuanced data, I exercised a high degree of diligence and thoroughness throughout the analytical process. Rather than relying solely on the mechanical application of thematic analysis techniques, I engaged in a iterative and reflexive manner, constantly revisiting the data, challenging my interpretations, and considering alternative perspectives. This approach ensured that the themes I identified were not only supported by the data but also captured the richness and complexity of the participants' lived experiences. Furthermore, I situated the TA within broader theoretical frameworks (Social Constructivism, FIT and FDT) that informed my understanding and interpretation of the data. By drawing upon these theories and existing literature, I was able to contextualise the emergent themes within a broader scholarly discourse, thereby enhancing the depth and nuance of my analysis.

In summary, while I acknowledge the potential limitation of TA in missing nuanced data if employed carelessly, I took deliberate steps to mitigate this risk. By grounding the analysis firmly in the data, engaging in a reflexive and iterative process, and situating the

findings within three theoretical frameworks, I aimed to develop a rich and nuanced understanding of the phenomena under investigation, allowing the participants' voices and experiences to shine through the interpreted themes.

4.10.4 Sample size

This study focused specifically on thirty-six first-year students enrolled in the BAT course at a selected teacher education university. While this sample size allowed for an in-depth exploration of the participants' experiences, it is important to acknowledge the limitations that arise from this scope.

Firstly, the absence of other first-year students from the same cohort who were not included in this study presents a limitation. The experiences and perspectives of those students were not captured, potentially leaving gaps in the overall understanding of the phenomenon under investigation. However, it is worth noting that the willingness and availability of the thirty-six participants provided a valuable opportunity for rich and detailed discussions, enabling me to delve deeply into their lived experiences.

Secondly, the relatively small sample size inherently inhibits the ability to draw broad generalisations from the findings. The experiences and perspectives shared by these thirty-six students may not necessarily reflect the wider population of first-year student teachers, either within the same institution or across different contexts. It is essential to exercise caution in extrapolating the results beyond the specific sample and setting of this study.

Despite these limitations, it is crucial to emphasise that the primary goal of this study was not to achieve generalisability in a statistical sense. Instead, the study sought to gain an in-depth understanding of the particular students' experiences of receiving e-formative feedback during their ERL. By employing a qualitative approach and focusing on a smaller sample, I was able to explore the nuances, complexities, and rich details of their lived experiences, which may have been obscured or lost in a larger-scale quantitative study. Furthermore, the limitations regarding sample size and generalisability do not diminish the significance or validity of the findings within the specific context of this study. The insights gained from these thirty-six participants can contribute to a deeper understanding

of the phenomenon, inform future research, and potentially resonate with similar experiences in other contexts.

It is essential to interpret the findings of this study within the boundaries of its scope and limitations, acknowledging that they represent a snapshot of the experiences of a particular group of students within a specific setting. While the results may not be immediately generalisable, they offer a valuable starting point for further exploration, discussion, and potential transferability to other contexts through future research endeavors.

4.10.5 Language

As a researcher conducting this study, I encountered a significant limitation related to language proficiency among the first-year student participants. For most of them, English was a second or even a third language, which posed challenges in effectively communicating and expressing their experiences during the interviews and focus group discussions. Throughout the interviews and group discussions, there were instances where some students struggled to fully comprehend the questions posed to them or found it difficult to articulate their experiences of receiving e-formative feedback during ERL. This language barrier had the potential to hinder the depth and accuracy of the data collected, as misunderstandings or difficulties in expression could lead to incomplete or inaccurate representations of their perspectives.

To address this limitation, I employed a proactive approach during the interviews and focus group discussions. Whenever a participant faced challenges in expressing themselves in English, I actively encouraged them to use their home languages. By creating an environment where they felt comfortable using their native tongues, I aimed to facilitate more authentic and unhindered communication, allowing them to convey their thoughts and experiences more naturally. Furthermore, to ensure the accuracy and validity of the data collected, I implemented a verification process during the transcription stage. After transcribing the interviews into written English form, I shared the transcripts with the respective participants, inviting them to review and confirm the accuracy of the information captured. This step allowed the participants to verify that their experiences

and perspectives were correctly represented, minimising any potential distortions or misinterpretations arising from the language barrier.

It is important to acknowledge that despite these measures, the language limitation may have persisted to some extent, as the translation and interpretation processes inherently introduce the possibility of nuances being lost or meanings being altered. However, by actively addressing the language barrier through encouraging the use of home languages and implementing a verification process, I aimed to mitigate its impact on the data's reliability and validity as much as possible. Recognising and addressing such limitations is crucial in qualitative research, as it enhances the transparency and trustworthiness of the study. By acknowledging the language barrier as a limitation and taking proactive steps to minimise its influence, I strived to ensure that the voices and experiences of the participants were accurately captured and represented, despite the challenges posed by language proficiency differences.

4.11 CONCLUSION

This chapter provided a comprehensive overview of the research methodology and design employed in my study. Given the nature of the research inquiry, which aimed to explore in-depth the experiences of first-year students of receiving e-formative feedback during ERL, a qualitative case study approach was deemed most appropriate. The decision to adopt a qualitative methodology was grounded in the interpretive paradigm, which recognises the subjective and contextual nature of knowledge construction. By embracing this paradigm, the study sought to gain a rich understanding of the participants' lived experiences, perspectives, and interpretations of the phenomenon under investigation.

To analyse the collected data, the study employed TA, a widely recognised and robust method for identifying, analysing, and reporting patterns or themes within qualitative data. This analytical approach allowed for a systematic and rigorous exploration of the participants' accounts, enabling the identification of salient themes that captured the essence of their experiences with e-formative feedback. The data for this study was gathered from a purposive and conveniently sampled group of thirty-six first-year student

teachers. The purposive sampling strategy ensured that the participants possessed relevant experiences and perspectives related to the research focus, while the convenience aspect facilitated accessibility and feasibility within the practical constraints of the study.

Recognising the importance of transparency and acknowledging potential limitations, this chapter also addressed methodological considerations that could impact the production and analysis of data. By openly discussing these limitations, such as language barriers or sample size constraints, the study aimed to enhance its credibility and provide readers with a comprehensive understanding of the context and potential challenges encountered during the research process. As the chapter comes to a close, it sets the stage for the presentation of the study's findings in the subsequent chapter. The insights gained through the rigorous application of the qualitative case study methodology and Thematic Analysis will be unveiled, offering a nuanced and in-depth exploration of the participants' experiences with e-formative feedback during their online learning journey.

Overall, this chapter has laid a solid foundation for the study by clearly articulating the methodological framework, data collection and analysis approaches, and relevant considerations that shaped the study's design and implementation. With this foundation in place, readers can better contextualise and interpret the findings that will follow.

CHAPTER 5 PRESENTATION OF FINDINGS

> "Formative *feedback helps students to maximise their potential at different stages of learning, raise their awareness of strengths and areas for improvement, and identify actions to be taken to improve performance"* (Leung, Fine, Blizard, Tonni, Ilhan & Louca, 2022).

5.1 INTRODUCTION

In the previous chapter, I provided a comprehensive overview of the research methodology and design adopted for this study. I carefully articulated the rationale behind choosing a qualitative case study approach, rooted in the interpretive paradigm. This methodological choice aligned with the study's objective of gaining an in-depth understanding of the participants' subjective experiences and interpretations. The data collection process was meticulously outlined, detailing the use of semi-structured interviews and focus group discussions as primary methods. These qualitative techniques allowed for rich and nuanced insights to emerge from the participants' narratives, enabling me to capture the complexities and nuances of their lived experiences.

Furthermore, I provided a detailed explanation of the data analysis method employed – Thematic Analysis. This rigorous and widely recognised approach facilitated the systematic identification, analysis, and reporting of patterns and themes within the qualitative data, ensuring a robust and comprehensive analysis of the participants' accounts. The previous chapter also addressed critical aspects of the research process, including sampling considerations, measures taken to ensure trustworthiness, ethical considerations, and methodological limitations. By transparently discussing these elements, I aimed to enhance the credibility and ethical integrity of the study, while acknowledging potential constraints and challenges that could influence the study findings.

Building upon this foundation, the present chapter delves into the findings of the study, which focused on exploring first-year students' experiences of receiving e-formative feedback on their BAT e-formative assessments during ERL at a selected teacher education university in South Africa. To present the findings, I have incorporated direct

quotations from the participants' responses during the semi-structured interviews and focus group discussions. These verbatim excerpts not only lend authenticity and richness to the findings but also allow the participants' voices and perspectives to resonate directly with the reader. By presenting the findings in this manner, coupled with the methodological rigor outlined in the previous chapter, I aim to provide a comprehensive and trustworthy account of the participants' experiences. The direct quotations serve as evidence, grounding the findings in the participants' own words and narratives, while the methodological transparency enables readers to evaluate the credibility and transferability of the insights gained.

Overall, this chapter represents the culmination of the research journey, where the findings emerge from the carefully designed and executed methodological framework. By presenting the findings with direct participant quotations, I strive to honor the participants' voices and offer a rich and nuanced exploration of their experiences of e-formative feedback during their emergency remote learning journey.

5.2 THEMATIC ANALYSIS

The findings I presented in this chapter were generated from thirty-six first-year student teachers on their experiences of receiving e-formative feedback during ERL. As I have already explained in the methodology chapter, after gathering all the data, I listened carefully to the audio recordings of the interviews which I later transcribed. I then carefully read through the transcripts and identified the patterns which I open coded and then developed into descriptive themes. This allowed me to become familiar with the content of the interviews and to be able to note subtle nuances in the responses of the first-year students who participated in this study. I used Thematic Analysis (TA) to analyse the data for this study. TA is the easiest strategy of categorising qualitative data as the researcher evaluates the data, makes notes, and sorts it into different categories (Braun & Clarke, 2006; Marshall & Rossman, 2016). I categorised the data I collected in this study into two broad themes as I sought to answer my main research question: How do first-year student teachers experience and respond to e-formative feedback to support their learning in an ERL context? The two themes that represented the data collected in this study were:

- Students' experiences of receiving e-formative feedback during ERL
- Students' responses to e-formative feedback during ERL

Each theme was supported by sub-themes and verbatim quotes from the students' responses to the interviews' questions.

5.3 STUDENTS' EXPERIENCES OF RECEIVING E-FORMATIVE FEEDBACK DURING ERL

In the interviews, I asked students to share their experiences of receiving e-formative feedback on their Becoming a Teacher (BAT) e-formative assessments during ERL. Students' responses revealed different experiences which provided great insights into how the e-formative feedback they received during ERL influenced their remote learning, specifically in the BAT course. The experiences they shared fit into the following sub-themes: Accessibility of e-formative feedback; Timing of e-formative feedback; Specificity of e-formative feedback; Valence of e-formative feedback; and Amount of e-formative feedback.

5.3.1 Accessibility of e-formative feedback

Data collected from first-year student teachers revealed several issues related to the accessibility of e-formative feedback[1] during ERL. Some students reported that they could not access the e-formative feedback because they lacked the necessary knowledge and skills to navigate the university's Canvas Learning Management System (LMS), through which feedback comments were provided. During ERL, their instructors posted comments on the students' BAT e-formative assessments within the Canvas LMS. However, the students could not find these comments due to their unfamiliarity with the Canvas LMS interface. The inability to access e-formative feedback hindered the students' ability to identify gaps in their learning of the BAT course. They emphasised that accessing the

[1] In this study, I use the term *accessibility of e-formative feedback* to refer to the degree to which students can obtain and understand e-feedback comments on their e-assessments whatever their locations, languages, academic performance, physical and mental aptitudes, etc.

feedback was crucial as it would provide insights into their performance and areas for improvement. One student expressed their frustration, saying:

> "*I didn't know where to find feedback comments on the course portal during emergency remote learning. So, I waited until the instructor gave us overall feedback in our online class, then I'd get an idea of how we were doing.*" – Student BD

Another student shared the following:

> "*This way of getting feedback was new to me and to all of us. It was quite difficult for me to check feedback online because I was not familiar with the course portal through which feedback was provided.*" – Student AM

Other students emphasised the negative impact of their inability to access e-formative feedback on their academic performance by stating that:

> "*I didn't understand how the course portal worked, so I couldn't check feedback on my work. It was frustrating because I couldn't keep track of how I was doing.*" – Student AH

> "*I didn't know how to navigate through the course portal, and so I didn't check feedback. So, I never knew where I went wrong and what I needed to do to improve in my next task.*" – Student AL

> "*I am not very good at using a computer, let alone checking feedback comments on the course portal. So, during emergency remote learning, I didn't know how I was doing or what I had to do to perform better in future tasks.*" – Student BG

The excerpts above reveal that some first-year students lacked the necessary computer and technological skills to navigate the university's Canvas LMS and access e-formative feedback on their BAT e-formative assessments. This deficiency in the required skills hindered their ability to identify strengths and weaknesses in their learning of the BAT course during ERL. The students emphasised that in high school, they did not require computer skills to access formative feedback as they received handwritten comments on

their work. Therefore, the transition to accessing e-formative feedback through the Canvas LMS presented a significant obstacle in their ability to learn from the feedback comments. This sentiment is evident in the following responses:

> "*In high school, we received handwritten comments, and it was easier to identify our mistakes. Now, during emergency remote learning, we had to log onto the course portal to check feedback comments. I did not have the skills to navigate through the portal, nor did I know where I would find the comments on my work after logging in. So, I didn't bother logging in to look for feedback comments.*" – Student BD

> "*This was the first time I had to log onto a course portal to get feedback on my work. In high school, I didn't need computer skills because our teachers gave us our scripts with handwritten comments so we could check where we went wrong. This was all new to me, and yeah it was difficult because I just didn't know where to find comments on my work.*" – Student AL

> "*I didn't expect that checking feedback on my work would be that difficult. In high school, it wasn't that much of a hustle to check feedback. So, I thought it would be the same here [in university]. It was frustrating because I could log in but didn't know where to go from there to check or find feedback on my BAT work.*" – Student AH

The responses above reinforce that the students' lack of computer and/or technological skills constrained them from accessing e-formative feedback on the university's Canvas LMS during ERL. Precisely, the first-year students in this study who did not have prior knowledge and experience of using a Canvas LMS missed valuable e-formative feedback information because they did not have the skills required to access the LMS and check e-formative feedback on their BAT e-formative assessments. This consequently hindered them from identifying a gap in their remote learning and what they needed to do to close that gap.

While some students in this study reported that they could not access e-formative feedback on their BAT e-formative assessments due to the lack of knowledge required to

navigate through the university's Canvas LMS, others stated that their accessibility of e-formative feedback was hindered by a lack of technological devices and network and/or internet connectivity. The students reported that during ERL, they did not have laptops and computers and internet connectivity which not only hindered their access to e-formative feedback but also constrained their overall remote learning. Responses extracted from the interviews read as follows:

> "*I didn't have a laptop for quite some time, so I could not access e-formative feedback.*" – Student AO

> "*I couldn't check feedback online because I did not have a laptop or a smartphone. The university offered laptop loans, but I couldn't come to campus to get a laptop due to the travel restrictions during lockdown level five.*" – Student AF

> "*The issue of network connectivity was a challenge for me. I couldn't log into the course portal to check feedback on my work because I didn't have mobile data. When the university gave us mobile data, I still couldn't access feedback because of the lack of network connectivity or signal in my area.*" – Student BI

> "*I missed the communication that the university offered mobile data. So, I couldn't check feedback on the course portal because I honestly couldn't afford data.*" – Student BA

Other students added that during the time of ERL, they were based in rural areas and struggled to get access to internet connections. Student AX reported the following:

> "*I was in the deep rural areas where there was bad internet signal, so I couldn't access the e-formative feedback.*" – Student AX

In the same vein, students AC and AU added that:

> "*Yes, I was also in the deep rural area and did not have access to internet.*" – Student AC

> "*In the rural area where I was based during emergency remote learning, there was poor internet connectivity or signal. Every time I tried to log in, I would either get*

an error message or my phone would display the 'loading' message that I would end up not logging in and accessing feedback." – Student AU

What emerged from the above students' responses was that accessibility of e-formative feedback was not only constrained by a lack of mobile data but also the unavailability of internet signals in areas in which they lived during ERL. Students who were in rural areas could not access e-formative feedback due to their area being underserviced, resulting in a lack of internet signals and/or connectivity. Student AU added that the lack of electrical supply and demand in his area also constrained his accessibility to the e-formative feedback because it affected the internet signals. The student claimed the following:

"*…another issue was that when there was no electricity, there was no internet signal and because of that, I couldn't access the course portal to check feedback. In my area, we would go for one week without electricity*" – Student AU

Other students reported the following:

"*The difficult part of e-formative feedback was that sometimes, you would discover that there is no internet, sometimes due to loadshedding, which made it impossible to access the course portal and e-feedback promptly*" – Student AC

"*In my area, we hardly had electricity. It was either loadshedding or cables were stolen. When there was no electricity, internet signals were also affected. So, I couldn't check my feedback online because I didn't have internet access.*" – Student AX

What emerged from the responses above is that access to e-formative feedback was affected by where students lived during ERL, suggesting that e-formative feedback is context bound. Some of the first-year students in this study could not access e-formative feedback on the university's Canvas LMS because they either had poor or no internet connectivity/signal in the area in which they lived during ERL. The data collected for this study also revealed that besides a lack of technological skills, technological devices and internet connectivity, accessibility to e-formative feedback during ERL was constrained by the complexity of the language and/or vocabulary used in e-formative feedback

comments. First-year students in this study who had reliable computer devices and internet connectivity reported that even though they could navigate through the university's Canvas LMS to access e-formative feedback, the language their instructors used in their e-feedback comments hindered their access to e-formative feedback. This is evident in the following responses:

> "*This other time, my tutor wrote, 'It seems you did not go through the readings intensively and therefore constrained your own epistemological access. Revisit the readings and the lecture recordings that were uploaded online." It sounded like I didn't do well, but really, what is epistemological access?*" – Student AB

> "*I feel like our teachers in high school knew us well because their feedback was written in an understandable language. Here, feedback language is too difficult and so during emergency remote learning, I didn't really get to understand what I didn't do well and what I was expected to do next*." – Student BH

> "*If you didn't understand what was being said in the feedback comments, you wouldn't know what to do with it. That was always the case with me*." – Student AS

> "*As a student whose home language is not English, when feedback wasn't provided in very simple, non-idiomatic language, it was nearly impossible for me to interpret on my own without being able to ask for clarification.*" _ Student BH

> "*I've received feedback written in such dense academic language that I did not understand what specific action my tutor wanted me to take. This was so frustrating.*" – Student AN

> "*English is my third language. I found it difficult to understand the feedback comments I received online because my tutor used words I found difficult to understand*." – Student BF

Generally, first-year students in this study who reported negative experiences relating to the accessibility of e-formative feedback revealed multiple factors that constrained their access to e-formative feedback on their BAT e-formative assessment. These included a lack of technological competence and skills, a lack of technological devices, a lack of

internet connectivity and/or signals, and the complexity of the language used in e-formative feedback. The students also pointed out that their inability to access e-formative feedback on the university's Canvas LMS made it difficult for them to learn from e-formative feedback comments and to use e-formative feedback to improve their remote learning and academic performance during the challenging time of ERL.

Although most first-year students in this study reported negative experiences relating to the accessibility of e-formative feedback during ERL, there were first-year students who reported positive experiences, stating that they possessed relevant computer skills that enabled them to navigate through the university's Canvas LMS to access e-formative comments on their BAT e-formative assessments and had reliable internet connectivity during ERL. These first-year students commended this new way of receiving assessment feedback, stating that receiving e-formative feedback through the university's Canvas LMS supported their digital communication with their tutors, as they could 'write back' to them through the LMS to ask for clarity on certain comments and ask for detailed e-formative feedback. These findings are evident in the following students' responses:

> "*I know how to use a computer, so I never had difficulty accessing e-feedback on the course portal during emergency remote learning.*" – Student AZ

> "*I could check feedback on the course portal. I also learnt to comment on my tutor's comments* [laughs]*. It was good because even though I didn't get to see my tutor face-to-face, we could sort of like chat on the e-learning platform*" – Student AP

> "*I had a computer, and with the help of my parents, I could check feedback and if I didn't understand the "university vocabulary" used on feedback comments, my parents broke it down for me*" – Student BE

Another student reported that his high school experience was the reason he did not find it difficult to access technology-facilitated assessment feedback.

> "*In high school, some of our teachers created online classes where they posted extra learning activities and sometimes provided feedback on those activities. It is through this that I learnt to access e-feedback on online learning platforms. So, I*

didn't find it difficult to access e-formative feedback through the university's e-learning platform. I was able to check feedback on my work and even save it on my laptop for access later." – Student BC

What emerged from the above responses was that students who could access e-formative feedback during ERL had technological devices, computer skills and competence, received help from their parents and had experiences in using LMSs to access e-formative feedback. The overall findings relating to the accessibility of e-formative feedback revealed a correlation between students' socio-economic status and accessibility of e-formative feedback. First-year students in this study who came from low-income families, thus did not own a computer device, did not have internet access and lacked computer skills thus could not access e-formative feedback during ERL. On the other hand, first-year students from middle/high-income families could access e-formative feedback because they possessed the necessary resources and skills required to access e-formative feedback through the university's Canvas LMS. Data collected in this study unveiled accessibility challenges, revealing that accessibility of e-formative feedback problems does not exist simply because of lingering issues such as random technological gaps, a lack of internet connectivity and complexity of e-formative feedback language, although these also contribute significantly to accessibility barriers. These problems were deeply rooted in students' socio-economic backgrounds and serious gaps in the university's preparedness to support diverse students during the challenging times of COVID-19 and ERL.

5.3.2 Timing of e-formative feedback

Students in this study who could access e-formative feedback during ERL (had resources and skills required to access e-formative feedback) on the university's Canvas LMS reported that they received delayed e-formative feedback[2] on their BAT e-formative assessments. The students reported that while they preferred immediate e-formative

[2] In this study, I use the term *delayed e-formative feedback* to refer to when e-formative feedback is provided weeks after the submission deadline. Immediate e-formative feedback is, therefore, when feedback comments are provided during an assessment or a day after an assessment has been submitted.

feedback, they received e-formative comments on their BAT learning tasks two to three weeks after the submission deadline. For these students, e-formative feedback did not help improve their remote learning of BAT because they received it when they had already forgotten the assessed content knowledge and moved on to other topics and/or other academic articles. The following are some first-year students' responses:

> "*I didn't get timely feedback during emergency remote learning, which was frustrating and did not help me in improving my performance and my remote learning of Becoming a Teacher.*" – Student AJ

> "*I got feedback for a task when I had already submitted two more tasks. This made it difficult to track how I was doing.*" – Student AY

> "*Absolutely! By the time I got feedback on my work I was already disengaged from that material and focused on new course units. My mindset had moved on so reflecting retrospectively required more effort. Immediacy would help with relevance and follow through.*" – Student AW

> "*I received feedback three weeks after submitting a task. It* [feedback] *didn't help me much with improving my performance because it came too late when there wasn't much I could do to improve my performance in future learning tasks.*" – Student BB

> "*I got feedback two weeks after submitting a Becoming a Teacher task. This was not fair because it* [Feedback] *came when I had forgotten the contents of the article that was tested. In most cases, I didn't even pay attention to it* [Feedback] *because I was focused on the next article I was reading.*" – Student AR

What emerged from the excerpts above is that some first-year students in this study received delayed e-formative feedback which they could not use to inform their remote learning of BAT during ERL. This was because they received e-formative feedback when they had forgotten the learning goals, and the assessed topics and there was no time for them to act on it. Other students added that delayed e-formative feedback hindered them

from identifying areas of strengths and the gaps in their remote learning at the time when they needed to do so:

> "*I want to know I am not doing well at the time when I am not doing well. But, during emergency remote learning, I received delayed e-feedback which made it hard for me to identify my mistakes on time.*" – Student AK

> "*Because feedback on my work was always delayed, I found it difficult to learn about my mistakes on time.*" – Student AV

> "*I got comments like 'good job!!' or 'well done on this and that…'. But I was always frustrated that my feedback came back like two weeks after I submitted an assignment. By then, I'd already moved onto other tasks, so I didn't have time to apply the feedback properly to improve next time.*" – Student AH

Furthermore, other first-year students in this study reported that e-formative feedback was not only delayed on the side of their instructors but on their side as well, as they could not access it immediately when it was provided due to a lack of internet connectivity. This is evident in the following students' responses:

> "*It was frustrating because even when feedback was finally posted on the course portal, I still couldn't access it immediately due to lack of internet connectivity.*" – Student AT

> "*The delayed feedback I received was further delayed when I didn't have mobile data to access it. So, it was like it was double delayed* [laughs]. *But seriously, this affected my remote learning because it took long for me to know my mistakes.*" – Student AC

> "*When I didn't have data, I couldn't access feedback online. So, when my tutor finally posted my feedback on the course portal, it still took me a considerable amount of time to access it, because I hardly had internet connectivity during emergency remote learning.*" – Student AU

Most first-year students in this study complained that the timing of e-formative feedback was disappointing. Multiple elements including “delayed feedback”, and “lack of internet connectivity” were explanations provided for their negative experiences relating to the timing of e-formative feedback during ERL. The students also emphasised the importance of timely e-formative feedback in their remote learning of BAT. They pointed out that timely e-formative feedback would help them see their strengths and weaknesses early and subsequently come up with strategies to overcome their weaknesses while they are still mindful of the assessed content knowledge. This is evident in the following students’ responses:

> “*If I received feedback early, say two to three days after the submission deadline, I would learn about my mistakes and make sure to not repeat them next time. But, during emergency remote learning, I received feedback when it was too late to do anything about it.*” – Student AQ

> “*Because I received feedback like two weeks after submitting a task, it was difficult to incorporate it in my learning, because it was in the past, and the tested content was in the past. So, I just focused on what we were learning at that moment, I just moved on* [laughs].” – Student BJ

> “*I received feedback late, so I couldn’t do anything about it. I just read it, that’s it. But if I received it immediately after submission, not immediately, but like two to three days after submission, when I could still remember the contents of the task, then I would be able to use it to fix my mistakes.*” – Student AW

While most first year students in this study were dissatisfied with the timing of the e-formative feedback that they received during ERL, some first-year students seemed unbothered with receiving delayed e-formative feedback. They reported that immediate e-formative feedback required immediate processing of the feedback information (e.g: going over the feedback and an assessment right after completing it), which would increase their cognitive load and make it difficult for them to incorporate their instructors’ comments in their remote learning. These students expressed the following:

"*I didn't mind getting late feedback. Immediate feedback would require that I overwork myself, process feedback information and rework on the assessed content while at the same time, learning the new topic. This would be really hard for me.*" – Student AG

"*I received delayed feedback. Like three weeks after the submission deadline. But I was okay with this. When I did need to use it [feedback], I would just go online and access it.*" – Student AI

Students AI and AG added that:

"*I didn't see a problem with delayed feedback. I worked on other topics while I waited for feedback.*" – Student AI

"*Also, this way of giving feedback was new to our tutors. They needed time to learn how to give feedback online. So, it was fine even when it was late. At least it was online, and you could log in and read it anytime, especially when revising.*" – Student AG

Although the three students gave reasons for preferring delayed feedback, most students in this study maintained that immediate e-formative feedback would help them evaluate and adjust their knowledge while they were still mindful of the content knowledge, topic, and performance in question. They asserted that immediate e-formative feedback would help them identify misunderstandings and correct them as soon as possible. Data collected in this study suggests that immediate e-formative feedback holds the potential to enhance student motivation. Thus, providing immediate e-formative may be essential for improving the effectiveness of e-formative feedback and fostering students' learning during the circumstances of ERL.

Generally, the timing of e-formative feedback was a significant concern for most first-year students in this study, impacting their experiences of receiving e-formative feedback during ERL. Multiple interrelated factors contributed to the students' dissatisfaction with the timing of feedback, highlighting the complex nature of this challenge. Firstly, the students consistently cited delays in receiving e-formative feedback as a major obstacle.

Despite submitting their assessments, they often encountered substantial lags before receiving feedback from their instructors. This delay not only hindered their ability to promptly address areas of improvement but also limited their capacity to reinforce their strengths while the subject matter was still fresh in their minds. Compounding the issue of delayed feedback was the lack of reliable internet connectivity experienced by many students. Unstable or intermittent internet connections posed a significant barrier to accessing the e-formative feedback, further exacerbating the delays and hampering the students' ability to engage with the feedback in a timely manner. Moreover, the students emphasized the importance of timely e-formative feedback in their remote learning of the BAT course. They recognised that receiving feedback promptly would enable them to identify their strengths and weaknesses early on, providing them with the opportunity to develop targeted strategies to address their weaknesses while the assessed content knowledge was still fresh in their minds.

It is important to note that the students' dissatisfaction with the timing of e-formative feedback was not solely attributable to any single factor. Rather, it was the culmination of multiple interconnected elements, including delays in feedback provision, internet connectivity challenges, and the perceived importance of timely feedback for effective learning. The students' responses illustrated the profound impact that untimely feedback had on their learning experience, contributing to a sense of frustration and dissatisfaction with the feedback process. Their voices underscored the significance of promptly receiving e-formative feedback, as it allows them to make necessary adjustments and improvements while the content is still fresh, ultimately enhancing their understanding and mastery of the subject matter.

5.3.3 Specificity of e-formative feedback

The specificity of e-formative feedback[3] is another sub-theme that emerged from the data collected in this study about students' experiences of receiving e-formative feedback on

[3] Refers to the extent to which e-formative comments on students' e-formative assessment are specific to their learning progress; the strength and weaknesses of their work and how to proceed.

e-formative assessment during ERL. Some of the first-year students in this study reported that they received vague e-formative feedback that did not help them see their mistakes and did not outline what they needed to do to improve their performance. These first-year students reported that while they strongly preferred e-formative feedback that pointed out specific sections and/or areas of their work that needed improvement. On the contrary, they often received e-formative comments that were too vague and did not specify weak and strong sections of their work. Responses extracted from the interviews read as follows:

> "*On my BAT tutorial tasks, I received comments like, 'Well done on completing the task'. Nothing about what I did wrong or what I did right, just that, 'well done on completing the task'*." – Student AE
>
> *I received comments like, 'You misunderstood the article. Please go through it again for better understanding'. What about my responses that made the tutor say I misunderstood the article? Yho, the feedback just didn't specify what was wrong with my work*" – Student AN
>
> "*For this one assignment, my tutor wrote, 'next time pay attention to finer details of the questions to improve your results'. I had failed this specific task. I did not understand what that even meant. Was I not reading the questions correctly? I wished my tutor's feedback could tell me exactly what I was doing wrong!*" – Student AD
>
> "*I remember getting a comment that read, 'A little more effort can improve your marks'. And I was like huh? …which section required effort? What more could I have done?*" – Student AA
>
> "*For me was the lack of depth and specificity. I've gotten one-word comments like "expand" without elaboration on what exactly to expand on or how. The vagueness made improvement really difficult.*" – Student AI
>
> "*…when I finally got feedback, I got comments like 'keep up the good work' and 'well done'. This didn't help me understand what constitutes good work. I wanted*

comments that told me which section of my work was good and which section I needed to work hard on." – Student AK

What emerged from the excerpts above was that first year-students in this study received e-formative feedback that did not specify areas in their work that were well done and areas that needed improvement, and for this reason, they considered feedback unhelpful in preparing them for future learning events. The responses above indicated that first-year students preferred e-formative feedback that specified their learning progress – feedback that specified achievement and how they could improve. Importantly, first-year students in this study reported that while trying to meet their instructors' expectations, they were still unsure about the qualities of good and/or bad work because the e-formative feedback they received did not specify this. Furthermore, the interviews and focus group discussion data suggest that students preferred e-formative feedback that did not only specify good and weak sections of their work, and how to improve, but also feedback that specified assessment criteria (such as what constitutes good and/or bad work). This was perhaps an indirect way to express a wish for e-formative feedback that specified why a specific section of their work was good and/or why it was weak.

The findings also revealed that first-year students in this study did not only receive broad yet vague e-formative comments on their BAT tutorial tasks but also received generalised comments, which were not specific to their individual work. First-year students in this study reported that sometimes they received the same comments, irrespective of the difference in the quality of their work and the marks allocated. This is evident in the following students' responses:

"*My tutor would write, 'well done on completing the tutorial task' for everyone, irrespective of the mark allocated.*" – Student AV

"*I thought tutorial tasks were meant to just keep us working. Because the comments for these tasks were, in most cases, the same for everyone. Like, why did I have to even do the tasks in the first place if feedback wouldn't specify my learning progress and what I needed to do to improve*." – Student AW

"*Sometimes the tutor wrote, 'good work' for everyone who got 50% and above and 'needs improvement' for everyone who got below 50%. One never really knew what exactly they were doing wrong or right.*" – Student AQ

"*I didn't know very well what I was good at and weak in after reading my tutor's feedback because she wrote the same comment for everyone, even when our marks were different.*" – Student BJ

Other first-year students reported that e-formative feedback that did not address specific points of their performance and was not specific to their individual academic progress was unhelpful, as it did not provide information that led to greater possibilities for the learning of BAT during ERL. This made it difficult for them to incorporate e-formative feedback in their remote learning of BAT, which consequently interfered with their academic performance. Responses from the first-year students read:

"*Feedback that was not specific to my work and my progress didn't help me learn during emergency remote learning. Getting the same comment even though our marks were different was frustrating.*" – Student AT

"*During emergency remote learning, we needed feedback that would help us improve our academic competence. So, if feedback didn't specify your rights and wrongs, and how to fix those wrongs, then you couldn't use it in your learning or when you did revisions or prepared for exams.*" – Student BB

"*Lack of specificity in the feedback caused me to dismiss a lot of comments. If it wasn't clear what exactly I should modify, I often didn't know how to apply feedback comments to future work*." – Student AB

"*I thought it was unfair for the whole group to get the same comments, especially when our marks were not the same. Personally, I wanted feedback that was specific to my own work as this would show that the tutor saw my efforts. Also, I couldn't use such feedback when I was revising because it was not specific to my own learning progress.*" – Student AJ

The above responses emphasised the importance of differentiated e-formative feedback in helping first-year students see their individual progress in their remote learning of BAT. The students' responses showed that they wanted to see the relevance of e-formative feedback in their work which would help them study the course content in relation to their individual understanding and/or misunderstanding of the assessed content knowledge. This would help students develop self-regulated learning capacities, which they need during these circumstances of ERL. Furthermore, the first-year students in this study expressed that e-formative feedback that was not specific to their individual work caused frustrations and created a sense of unfairness because they received the same comment even though their work and the marks allocated were different.

Although most first-year students in this study were dissatisfied with the e-formative feedback they received on their BAT assessments because it did not specify strong and weak sections of their work and was not specific to their individual work, for some students, the effect was the opposite, as they seemed unaffected with this kind e-formative feedback. The responses from the students read as follows:

> "*When I got comments like 'good work' and 'you can do better', I felt like my tutor appreciates my work and I became more confident and prouder of myself and also more interested in studying harder to improve my marks*." – Student AY

> "*When my tutor commented 'you can do better', to me, it meant he believed in me. So, I took that as a motivation to study harder.*" – Student AI

The responses above suggest that for some first-year students, e-formative feedback that was not specific to their academic performance and did not provide suggestions for improvement, did not hinder their learning of BAT, but motivated them to study harder. This was perhaps an indirect way to express a wish to meet their instructors' expectations even though the feedback they received did not specify these expectations.

Generally, most first-year students in this study complained that the e-formative feedback they received through the university's Canvas LMS during ERL lacked specificity, thus hindering their remote learning of BAT. Multiple elements including a lack of specificity of strong and weak sections of their work, a lack of specific guidelines for improvement, and

generalised e-feedback comments were explanations provided for their negative experience of receiving e-formative feedback in their BAT e-formative assessment during ERL. Most first-year students in this study emphasised the importance of specificity of e-formative feedback comments in their remote learning of BAT. They pointed out that e-formative feedback that specified areas of improvement in their individual work would help them direct their energy towards specific areas of the BAT course content that required attention, which would help them learn strategically to improve their academic performance during ERL.

5.3.4 Valence of e-formative feedback

Another sub-theme that emerged from students' experiences of receiving e-formative feedback on BAT e-formative assessment during ERL is the valence of e-formative feedback[4]. Findings from this study revealed that there was a correlation between marks achieved and the e-formative comments that students received. First-year students in this study reported that they received positive e-formative comments when they had achieved 50% and above and negative e-formative comments when they had achieved below 50% on an e-formative assessment task. Responses extracted from the interviews read as follows:

> "*It depended on whether you passed or failed ma'am. When you passed, you got positive comments and when you failed, you got negative comments.*" – Student AN

> "*I'm not good at writing academic essays, so when a tutorial task required a discussion in the form of an essay I always got low marks and negative corresponding comments.*" – Student AA

[4] The extent to which e-formative feedback is characterized by an encouraging, affirming, or praising tone (positive valence) or conveys a critical, disapproving, or corrective tone (negative valence) (Raaijmakers et al., 2017).

> "*When I didn't do well, like when I got below 50%, I got comments that pointed out errors in my work. But I'd like to know, through feedback, what I could have done for better marks.*"– Student BJ

> "*When I read my tutor's comments on my work, I didn't end up knowing what I was good at because the feedback only told me about my errors, especially when I had failed.*" – Student AP

> "*When my marks were higher, I received feedback that confirmed that my work was good. Although I liked that, I also wanted to know my mistakes so that I could fix them.*" – Student AD

What emerged from the responses above is that first-year students in this study received either e-formative feedback that pointed out errors in their work or feedback that indicated to them that their performance was correct. No student in this study reported that they received e-formative feedback that constituted a balance between corrective (negative) and reinforcing (positive) comments (feedback that outlines strengths and weaknesses of students' work and how to improve). Furthermore, findings from this study revealed that most first-year students received e-formative feedback that showed errors than appraisal for the good work done. The data collected suggests that e-formative feedback that reveals students' errors does not necessarily help them gain a better understanding of their errors. As indicated in the responses above, students wanted to know how they could fix their errors in order to act on the e-formative feedback they received. Some students pointed out that their learning of BAT was not enhanced mainly in terms of knowing the errors they made in their BAT e-formative assessments but through the suggestions about what they could do to improve. Responses extracted from the interviews read as follows:

> "*It was difficult to learn during the pandemic, worse through emergency remote learning. If my tutor told me my mistakes and how to fix them, it would have reduced the frustration I had, caused by not being able to have face-to-face consultations with her.*" – Student AE

"*If I knew my errors and what I could do to fix them, then I would use my tutor's suggestions in future tasks so that I won't repeat the same mistakes.*" – Student AK

"*My tutor's comments on my work didn't offer suggestions for improvement. If they did, I would be able to study more independently. Emergency remote learning requires one to be able to study on their own. If feedback comments offered suggestions for improvement, I'd be able to use it when I studied or revise BAT coursework.*" – Student AU

When first-year students in this study were probed to enquire if they would prefer positive e-formative feedback even when they have failed an assessment task, most of them said they would welcome the idea, since this would motivate them to study harder and subsequently improve their academic performance:

"*It made me feel good about myself and my studies when I got positive feedback. So, I would be happy and motivated if I got positive comments even if I got low marks.*" – Student AI

"*Even when the marks were unsatisfactory, positive comments would motivate me to learn.*" – Student AV

"*If the tutor only criticised my work, I would be demotivated to learn. So, even when I failed a task, I preferred positive comments for trying and suggestions for improvement. That way, I'd be motivated to learn.*" – Student AZ

The responses above suggested that negative e-formative feedback has a damaging psychological impact on students' learning. The responses above indicated that students were demotivated by negative e-formative feedback, and this harmed their academic improvement and/or motivation to learn during ERL.

Generally, first-year students in this study received either positive or negative e-formative feedback, depending on the marks achieved in a particular e-formative assessment task. Those students who received negative e-formative feedback reported that they appreciated comments that showed them the errors in their work, but preferred e-

formative feedback that also indicated what they could do to improve. First-year students who received positive e-formative feedback also reported that they preferred feedback that did not only point out what they did well but also areas of improvement. The findings in this study suggested that students wished to receive e-formative feedback that constituted a balance between positive and negative comments, regardless of the marks they had achieved in their e-formative assessments.

5.3.5 Amount of e-formative feedback

First-year students in this study reported that the number of e-formative comments they received on their BAT e-formative assessments was small. The students reported that they received insufficient amounts of e-formative feedback comments that either pointed out their mistakes or praised their work, but not enough to help them understand what they needed to do to improve. Responses extracted from the interviews read as follows:

> "*As I've mentioned before, I received comments like 'well done on completing this tutorial task." A comment like that wasn't enough to help me understand the strengths and weaknesses of my answer to a tutorial question and what I need to do to improve how I responded to questions in future.*" – Student BJ

> "*I've received some feedback where the remarks were just very vague like "watch your analysis" without elaborating where my analysis fell short. Without specifics on what didn't meet expectations, the feedback alone didn't help me improve.*" – Student AK

> "*I agree, I needed very detailed and concrete suggestions in order to understand and apply feedback to subsequent assignments. The broad comments I received were not helpful.*" – Student BH

> "*…for example, a comment like 'good job' wasn't enough to help me understand what I did right. I wanted to know which section of my work was good and which one needed improvement.*" – Student AN

> "*Imagine getting a comment like 'a little more effort can help improve your mark'. This was just not enough. Where was I supposed to put effort? Which section of*

the assessed topic did I have to revisit? See what I mean? A small amount of feedback just didn't help. I needed detailed feedback, especially during emergency remote learning where I relied on it to learn about my mistakes" – Student AQ

What emerged from the excerpts above was that the number of e-formative feedback comments that first-year students in this study received on their BAT e-formative assessments was too small that it did not encourage them to act on it. The responses above indicated that the students preferred e-formative feedback that contained a usable amount of information, but instead, they received insufficient comments on their work that were unhelpful in preparing them for future learning events. Interestingly, some students reported that the amount of e-formative comments they received hindered their confidence and self-efficacy. One student reported that a comment that pointed out one error in her work made her doubt her ability to succeed academically during ERL. The student shared the following:

"*A comment that only told me one mistake in my work made me doubt myself and my ability to learn remotely and succeed*"– Student AW

Other students added the following:

"*I get you. One comment about my work, whether positive or negative, was not enough to help me improve. Remote learning was hard, and insufficient feedback made it even harder.*" – Student AE

"*When my tutor commented that my work was good or my work was bad, I was always left wondering what made it good or bad. It wasn't enough to just say that. I wanted to be told what made it good or what made it bad. Insufficient comments messed with my confidence in remote learning because I kept wondering what else I could have done, especially when it was just one comment about a mistake in my work.*" – Student BB

The findings in this study also revealed that first-year students did not only receive a scanty amount of e-formative feedback comments on their work but also complained about receiving generalised comments, stating that such comments were insufficient and

did not help them improve their remote learning. Responses extracted from the interviews read as follows:

> "*Sometimes, we got the same comments, like 'well done' or 'good, but you can improve', even though our work was not the same. This was not enough to motivate me to do anything with the feedback. I just looked at it, and that was it.*" – Student AG

> "*My tutor wrote, 'this is very brief' on my tutorial task and that of my friend, even though our work was different. The comment was not enough to help me understand whether I was on the right track or not. I didn't end up knowing what more I could have written to improve my work.* – Student AV

The above responses reveal that first-year students were dissatisfied with the amount of e-formative feedback they received during ERL because it had little explanation or suggestions on how to improve the next assessment. Interestingly, although most students in this study seemed to want e-formative feedback that revealed to them more about their work – what they did wrong, what they did right and how to improve – there were a few students who complained about receiving voluminous amount of e-formative feedback during ERL. The students reported that they received e-formative feedback in which their instructors highlighted most points in their e-formative assessment responses and listed the errors that needed to be addressed. First-year students who received such e-formative feedback reported that they were overwhelmed by their instructors' voluminous comments on their work and did not know how to use the feedback information to inform their remote learning during ERL. Responses extracted from the interviews read as follows:

> "*My tutor seemed to find a problem with every point I attempted to discuss. She would highlight a point or two in each paragraph and tell me what's wrong with it. I found her comments overwhelming. I did not know which errors to address and how to address them. As a first-year student who didn't have prior online learning experience, I found such feedback demotivating. It made me feel like I just wasn't studying enough or settling in well at university.*" – Student AR

"*My tutor would write, 'yes, but what about this or that…' or 'yes, but you could have added this…' for most points in my tutorial responses. This was overwhelming. It made me feel like I was missing too much in our online classes even though I rewatched most of the lectures posted on the e-learning platform.*" – Student AZ

"*I received feedback that had so many lengthy paragraphs of comments that I felt overwhelmed. I didn't know where to start in processing and prioritising what changes to make first. I think my tutor was trying so much to help me understand the course articles, but the comments were just too much!*" – Student AR

"*Yeah, too many comments given in one go were overwhelming and demotivating.*" – Student AT

"*Honestly, the sheer volume of feedback comments I sometimes received was overwhelming. When there were paragraphs of notes, critiques, and suggestions on my assessment response, I didn't even know where to start. It felt too extensive to process and act on.*" – Student AK

"*I agree, balancing multiple paragraphs of feedback was overwhelming. I didn't know where to start in terms of making improvements. So, it [feedback] didn't help me improve my learning at all.*" – Student AR

What emerged from the excerpts above was that first-year students in this study who received voluminous e-formative feedback comments on their BAT tasks during ERL were overwhelmed and demotivated to use feedback to inform their remote learning. The students' responses revealed that too many e-formative feedback comments provided at a single time were overwhelming and consequently, interfered with their remote learning.

Generally, first-year students in this study received either scanty or voluminous amount of e-formative feedback on their BAT e-formative assessments during ERL. Data from this study revealed that e-formative feedback that was scanty or voluminous did not invite students to be active agents in their learning of BAT during ERL. Students' responses revealed that scanty e-formative feedback did not provide them with informative

opportunities to independently revise their work and voluminous e-formative feedback was overwhelming and demotivating as well.

To sum up this section, first-year students in this study reported their experiences of receiving e-formative feedback on their BAT e-formative assessment during ERL in terms of accessibility, timing, specificity, valence and amount of e-formative feedback. The findings revealed that some first-year students in this study could not access e-formative feedback during ERL due to a lack of technological competence and skills, a lack of technological devices, a lack of internet connectivity and/or signals, and the complexity of the language used in e-formative feedback. Students who could access the university's Canvas LMS and e-formative feedback reported that they received delayed e-formative feedback during ERL, which constrained their remote learning of BAT as the e-feedback was received when it was too late to act upon it. Furthermore, first-year students in this study reported that the e-formative feedback they received did not specify the strengths and weaknesses of their work, and how to make improvements. They also reported that they received either positive or negative e-formative feedback, depending on the marks achieved. The students reported that negative e-formative feedback was discouraging because it failed to recognise their efforts, damaged their self-esteem, and decreased their motivation to learn remotely. With regards to the amount of e-formative feedback, first-year students in this study reported that they received either scanty or voluminous amounts of e-formative feedback, and both forms of e-formative feedback did not help them improve on their remote learning of BAT. While most students were dissatisfied with the e-formative feedback they received due to the above-mentioned factors that consequently harmed their learning of BAT during ERL, there were a few first-year students who seemed unbothered. Their responses suggested that they misunderstood the role of e-formative feedback in their remote learning and academic performance.

The above findings respond to the first research question: What are first-year students' experiences of receiving e-formative feedback on e-formative assessment during ERL? In the following section, I present findings in response to the second research question: How do first-year students respond to the e-formative feedback they receive during ERL?

5.4 STUDENTS' RESPONSES TO E-FORMATIVE FEEDBACK DURING ERL

In the interviews, I asked students to share their subsequent actions of receiving e-formative feedback on their *Becoming a Teacher* (BAT) e-formative assessments during ERL. Students' responses revealed different ways in which students responded to e-formative feedback during ERL. Their responses fit into the following sub-themes: Emotionality of e-formative feedback; Clarity of e-formative feedback; Focus on marks achieved and Self-regulated learning and motivation. In the discussion that follows, I unpack these sub-themes.

5.4.1 Emotionality of e-formative feedback

The findings in this study revealed that the e-formative feedback that first-year students in this study received on their BAT e-formative assessments during ERL elicited a broad range of both negative and positive emotional responses. Below I discussed various factors that influenced students' negative and positive emotional responses to e-formative feedback during ERL.

First-year students in this study reported that their inability to access e-formative feedback due to the complexity of the language and/or vocabulary used in feedback comments elicited negative emotional responses. The students reported that when they did not understand e-formative feedback comments, they felt frustrated and angry, and as a result did not use the e-formative comments to inform their remote learning of BAT during ERL. Responses extracted from the interviews read as follows:

> "*When the tutor used difficult words that I couldn't understand, I felt frustrated and didn't use the feedback comments to inform my learning.*" – Student BF

> "*You can't use what you don't understand. So, when I didn't understand exactly what the tutor meant in a comment, I would feel upset to the point where I cried. You know, I wanted so badly to do well, and hoped feedback would help me. But when it didn't, it really upset me.*" – Student BH

> "*When I read and didn't understand my tutor's comments because she used bombastic words, I would feel annoyed because why would you use such big*

words when you know you are dealing with first years? So, I would just look at it [feedback]*, and do nothing with it. Because I didn't understand it.*" – Student AS

What emerged from the students' responses above is that first-year students in this study who did not understand the e-formative feedback they received due to the complexity of the language used in feedback comments felt upset, annoyed, and frustrated - all negative emotions - and consequently did not use the feedback to inform their learning of BAT during ERL.

The findings in this study also revealed that the valence of both feedback and emotions defined the relation between the two constructs. That is, positive feedback elicited positive emotions, whereas negative feedback elicited negative emotions. This is evident in the following students' responses:

"*I felt good when I received a positive comment. It was an indication that I was doing well. But I didn't do anything with it because I felt like my work was good enough.*" – Student AA

"*I recall receiving feedback that listed problems with my work. I felt ashamed. The comments did not motivate me to do anything at all, so I just read them and that was it.*" – Student AQ

"*I received feedback comments that told me only about my errors. It was frustrating because it meant I wasn't doing anything right. I didn't do anything with such feedback because it just told me I was wrong here and there, nothing about 'do this instead', you know.*" – Student AN

"*For me, when I got really critical, blunt feedback, I got an emotional gut reaction first. Comments that felt like personal attacks rather than constructive criticism automatically made me disregard the feedback out of feeling wounded or indignant.*" – Student AG

What emerged from the excerpts above was that first-year students in this study did not use e-formative feedback in their remote learning of BAT, whether it elicited positive or negative emotions. When e-formative feedback was positive, and therefore elicited

positive emotions, students did not incorporate it in their learning because it suggested to them that they were doing well. On the other hand, when e-formative feedback was negative, and therefore elicited negative emotions, students did not incorporate it into their learning because it only indicated to them about errors in their work and not what to do to improve on them. Interestingly, there were students in this study who reported that positive feedback that lacked specificity elicited negative emotions and did not encourage them to use it to inform their remote learning during ERL:

> "*I felt upset when the tutor just wrote: 'well done'. Although it meant I was doing well, I still wanted to know which section of my work I did well, whether there were any mistakes, and whether was there anything I could do to improve. Because even though I was doing well, according to my tutor's comment* [laughs]*, I still wanted to do even better.*" – Student AV

> "*I got a comment that read: 'well done on completing this tutorial task'. I felt upset because a comment like that wasn't saying anything about my work, and I couldn't even use it to improve my performance in the next task.*" – Student AB

It is evident from the excerpts above that students in this study desired more than just positive comments on their work. Their responses suggested a deeper need for constructive suggestions and guidance on how to improve. This holistic approach to feedback would not only elicit positive emotions but also motivate them to actively use the e-formative feedback to inform and enhance their learning of the BAT course during ERL. Furthermore, the students recognised the emotional impact that feedback can have on their learning journey. They reported that positive comments alone, while encouraging, did not necessarily provide the substance and direction needed for meaningful growth.

In essence, the students' responses suggested that they did not only want positive comments on their work also but suggestions about how to improve. This would elicit positive emotions and motivate them to use e-formative feedback to inform their learning of BAT during ERL.

5.4.2 Clarity of e-formative feedback

The responses from first-year students in this study revealed that they did not use e-formative feedback received on their BAT e-formative assessments during ERL because it was unclear and difficult to understand. First-year students in this study reported that they sometimes received e-formative feedback where their instructors used digital tools available on the university's Canvas LMS to highlight, underline and/or circle errors, put punctuation marks, and insert emoticons. Such e-feedback left them confused and unaware of what they did wrong and what they needed to do to improve. This was reported by students as follows:

> "*I didn't know what to do when my tutor inserted question marks or emojis on my work. So, I didn't use such feedback in my remote learning.*" – Student AJ

> "*Sometimes my tutor would highlight or underline words or sentences on my BAT essays. I wouldn't know why part of my work was underlined or highlighted, so I didn't use that kind of e-feedback in my remote learning.*" – Student AD

What emerged from the interview data is that first-year students in this study did not use e-formative feedback because they did not understand how to use it due to a lack of clarity of feedback information. First-year students in this study reported that they could not decipher e-formative feedback that was in the form of punctuation marks, such as question marks and exclamation marks and emoticons, such as sad and happy faces. The above responses indicate that first-year students in this study viewed unclear feedback as unhelpful in preparing them for future learning events. They reported that while they did want to use e-formative feedback to inform their learning of BAT during ERL, they did not use it because they did not understand it, and this caused frustration. The data collected suggest that students did not only prefer e-formative comments that were clear and easy to understand, but also feedback that did not only consist of punctuation marks, circles, and underlined errors. This was perhaps an indirect way to express a wish for e-formative feedback that clarified why a specific section of their work was weak as opposed to feedback that only indicated errors in their work.

5.4.3 Focus on marks achieved

First-year students in this study reported that when they received e-formative feedback comments in conjunction with a mark, they ignored the feedback comments and only focused on the mark achieved because they viewed it as clearer feedback than the corresponding comments. The findings in this study revealed that students viewed marks as more important than corresponding comments, and therefore desired good marks irrespective of the quality of their work. Students' responses are as follows:

> "*I focused on the mark I got for a task because I got it very clear in my head how I was doing, like whether I was passing or failing.*" – Student AE

> "*I ignored the comments and focused on the mark because it told me my progress. If I got a higher mark for a task, it meant I was doing well*." – Student AY

> "*I didn't do anything with the corresponding comments that I received, I just looked at the marks and that was it!*" – Student AG

Another first-year student in this study reported that marks were more important than corresponding e-formative comments because they were a deciding factor of whether or not they passed at the end of the academic year. The student reported the following:

> "*I was worried about failing at the end of the year. So, when I got feedback, I only looked at the mark to see how I was doing. If my mark was higher, I felt content and if it was low or if I failed the task, I felt less keen to learn.*" – Student AD

What emerged from the responses above was that first-year students who participated in this study were more interested in marks allocated for e-formative assessments than in learning from e-formative feedback. The responses above indicated that first-year students desired good marks because they were an indication that they were doing well in BAT. The data suggest that first year students in this study did not use e-formative feedback to inform their remote learning during ERL but focused on marks to judge their learning progress. The students also pointed out that when they were provided with an opportunity to resubmit an assessment task, they only did so to improve their marks as

opposed to learning from their mistakes. The responses below are a confirmation of these findings:

> "*Sometimes I didn't even understand my mistakes. I just rewrote the task to improve my marks.*" – Student AL
>
> "*In cases where I rewrote, I only did so to improve my marks.*" – AS
>
> "*For tasks that counted towards participation points, we were given opportunities to redo the task. I only did so to improve my points.* – Student BG

Generally, first-year students in this study ignored e-formative feedback comments and focused on marks achieved because they saw marks as clearer feedback compared to corresponding e-formative comments. First-year students in this study reported that they focused on marks because these gave them a clearer indication of how they were doing in the BAT course during ERL. The students also emphasised that they paid particular attention to their marks out of fear of failure. Surprisingly, most students in this study reported not using e-formative feedback to improve their learning of BAT, even though this could have led to improved academic results. The findings revealed that when students achieved satisfactory marks, they assumed they were doing well and when they received unsatisfactory marks, they felt less keen to learn. In both instances, students who participated in this study did not use e-formative feedback comments in their learning of BAT during ERL.

5.4.4 Self-regulated learning and motivation

Although most first-year students in this study reported that they did not use the e-formative feedback they received to inform their learning during ERL. Just a few first-year students reported that they used e-formative feedback, irrespective of the factors that were reported, to hinder the usefulness of e-formative feedback such as accessibility, timing, specificity, valence, amount, emotionality and clarity of e-formative feedback. The students reported that in order to improve their academic performance during ERL, they had to be active participants in the learning process, which meant they had to find ways

to make e-formative feedback information useful. Responses extracted from the interviews read as follows:

> "*When I received voluminous feedback comments, I didn't act upon them all at once. When I revised my coursework for better understanding, I would incorporate some of the comments. Then, next time, incorporate the outstanding ones.*" – Student BE

> "*When I didn't understand my tutor's comments because of the complexity of the language used, I asked someone at home to help me.*" – Student AP

> "*After reading comments on my work, I reflected on what I could have done differently to improve my performance*." – Student BC

> "*I sought clarification of my feedback comments from my tutor through email. Communicating with her about her comments on my work helped me understand and use them to prepare for other tasks.*" – Student AZ

These first-year students also reported that they were intrinsically motivated to deeply understand BAT course content knowledge and thus used e-formative feedback as guidelines when they revisited the learning materials for this course.

> "*I find the course very interesting; I want to understand it well. So, when my tutor's comments are not clear, I revise the assessed topic for better understanding.*" – Student BE

> "*Even when I received feedback a few weeks after the submission deadline, I still used it when I reread previous articles because I wanted to understand them better for the take home exam at the end of the year*." – Student AP

> "*This course gave me a different perspective of what it means to be a teacher. I found it interesting. I used feedback to understand it better.*" – Student BC

What emerged from the above responses was that some first-year students' objective to understand the BAT course content knowledge motivated them to find ways to make e-formative feedback useful. The responses above indicated that these students had a

sense of responsibility in their learning of BAT during ERL, thus strategically using e-formative feedback to enhance their understanding of the content knowledge. Moreover, the students reported that while they received late, non-specific and unclear e-formative feedback, just like the other first-year students in this study, they still used it to ensure that they did not repeat the same mistakes in future e-assessment tasks. The interviews data suggest that despite their challenging experiences of receiving e-formative feedback during ERL, the self-regulated students in this study took responsibility for their own remote learning and actively sought ways to make the feedback they received on their BAT e-formative assessments usable in order to fully understand the subject matters.

5.5 CONCLUSION

In this chapter, I presented several key findings illuminating first-year students' experiences of receiving e-formative feedback during ERL. The results revealed multifaceted challenges and opportunities associated with providing meaningful e-feedback in remote learning contexts. The findings in this study revealed that accessibility barriers posed by a lack of devices, technological skills and competence, issues with internet connectivity, and complexity of language used in e-feedback comments prevented equitable access to e-formative feedback. Data about the timing of e-formative feedback revealed extensive lags between assignment submission and e-feedback delivery during ERL. The interviews and focus group discussions revealed that students received delayed feedback which reduced motivation and its utilisation. Furthermore, the findings demonstrated that students received generic e-feedback comments that were either positive or negative, depending on their assessment results. Most students' responses demonstrated the heightened emotionality of e-formative feedback, a lack of engagement with e-formative feedback and tendency to focus on marks over explanatory comments.

However, the findings also revealed that while e-formative feedback posed obstacles, some students were still able to effectively utilise e-formative feedback to advance their learning. Interviews and focus group discussions data revealed specific behaviors and dispositions that enabled these students to overcome barriers, including that they proactively sought out clarification of e-feedback comments and developed capacities for

monitoring their own progress, identifying gaps, and guiding improvements based on feedback.

Having presented the findings of the study, in the next chapter, I presented a synthesis of the data and theoretical understanding.

CHAPTER 6 DISCUSSION OF FINDINGS

"*The goal of formative feedback is to modify the thinking and behaviour of the learner to improve learning (Frank et al. 2017).*

6.1 INTRODUCTION

In the previous chapter, I presented the data generated from semi-structured interviews and focus group discussions using the Thematic Analysis method discussed in chapter four. In this chapter, I discussed the findings presented in the previous chapter with reference to the literature I reviewed in Chapter Two and in relation to the Social Constructivism theory, Feedback Intervention Theory (FIT) and Feedback Design Theory (FDT) which I used as key analytical frames in this study. I discussed the findings of this study thematically, and in a similar fashion, I presented the findings in Chapter Five.

6.2 STUDENTS' EXPERIENCES OF RECEIVING E-FORMATIVE FEEDBACK DURING ERL

In the analysis of the data about first-year students' experiences of receiving e-formative feedback on BAT e-formative assessment during ERL, five sub-themes emerged: Accessibility of e-formative feedback; Timing of e-formative feedback; Specificity of e-formative feedback; Valence of e-formative feedback and Amount of e-formative feedback. The following discussion unpacks these sub-themes.

6.2.1 Accessibility of e-formative feedback

In the analysis of the data from the semi-structured interviews and focus group discussions, one distinct finding revealed that accessibility of e-formative feedback is one of the key variables in the remote feedback process that can either hinder or foster the effectiveness and usefulness of e-formative feedback. This corresponds with prior studies (Huda, Kabir & Siddiq, 2020; Butacha, 2020; Maila, 2020). E-formative feedback is important for growth and learning outcomes in higher education (Forsythe & Johnson, 2017; Moffitt et al., 2020). However, there are challenges to ensuring the accessibility of such feedback, especially when it is delivered remotely and during the critical period of ERL (Maila, 2020; Moffitt et al., 2020). In the current study, I found that first-year student

teachers could not access e-formative feedback during ERL because they did not have the knowledge required to navigate through the university's Canvas LMS through which e-formative feedback comments on their e-formative assessments were given to them. As a result, they could not identify a gap in their learning nor get recommendations about how to close that gap. This subsequently interfered with their remote learning.

These findings are consistent with previous literature revealing that a lack of computer skills and competence was one of the challenges in accessing LMSs that facilitated the delivery of e-formative feedback to students during ERL (Butucha, 2020; Maila, 2020; Moffitt et al., 2020). Importantly, this previous research targeting students' accessibility to e-formative feedback only revealed that a lack of computer skills and competence constrained students from accessing e-formative feedback during ERL. My findings in the current study provide unique evidence that goes beyond just identifying the cause of students' inability to access e-formative feedback during ERL to include the effect this challenge had on students' remote learning.

The findings in the current study also revealed that first-year students could not access e-formative feedback during ERL due to the challenges with internet connectivity and access to technological devices. First-year students in this current study reported that they could not access e-formative feedback during ERL because they did not have laptops and/or computers and internet connectivity which did not only hinder their access to e-formative feedback but also constrained their overall remote learning. These findings support previous literature which documented that during ERL, students faced challenges with internet connectivity and access to personal technological devices, and as a result, they could not access the LMSs through which e-formative feedback comments on their e-formative assessments were given to them (Ismail et al., 2020; UNESCO, 2020c). Importantly, unlike previous literature, my current study revealed a correlation between students' socio-economic status and accessibility of e-formative feedback. The findings in my current study revealed that accessibility of e-formative feedback problems do not exist simply because of lingering issues such as random technological gaps – a lack of technological devices and a lack of internet connectivity – although these contribute

significantly to accessibility barriers. These problems are far deeply rooted in students' socio-economic backgrounds.

My findings revealed that first-year students from low-income families, specifically those who were based in rural areas, during ERL did not own a technological device nor did they have access to internet connectivity, which subsequently constrained their access to e-formative feedback. It seems first-year students in my study who were from low-income families and lived in rural areas during ERL were less technologically prepared for ERL than those from high-income families who were based in urban areas during ERL. This explained my findings that rural first-year students could not access e-formative feedback nor engage in remote learning during ERL. This finding is also in line with previous studies, which have reported a widening educational gap in remote engagement and learning outcomes between students from low-income and high-income families (Tate & Warschauer, 2022; Xu & Xu, 2019). My current study revealed that the rural-urban divide is a major source of variations in first year students' accessibility to e-formative feedback, which has a direct impact on remote self-regulation and engagement during ERL. My findings, together with previous studies, extend my understanding of varying students' experiences of accessibility of e-formative feedback when taking into consideration students' socioeconomic status and/or backgrounds.

Furthermore, the findings in my current study revealed that beyond a lack of technological skills, technological devices and internet connectivity, accessibility of e-formative feedback during ERL was constrained by the complexity of the language and/or vocabulary used in e-formative feedback comments. First-year students in this study who had reliable computer devices and internet connectivity reported that even though they could navigate through the university's LMS to access e-formative feedback, the language their instructors used in feedback comments hindered their access to e-formative feedback. These findings are consistent with previous literature revealing that feedback containing complex academic vocabulary or advanced terminology may be difficult for some students to fully comprehend, especially English Additional Language (EAL) students (Mao & Lee, 2020; Sarcona et al., 2020; Selvaraj et al., 2021). In the context of ERL, where there was limited and/ or no tutor support to clarify meanings,

students' inability to comprehend e-feedback comments limited the usefulness of the feedback.

The participants revealed that complex language and academic vocabulary in e-formative feedback comments created barriers for first-year students in comprehending and integrating the feedback during ERL. This aligns with key tenets of Social Constructivism which emphasises that learning is an active process of constructing meaning shaped through social interactions and discourse (Vygotsky, 1978). Without scaffolds to assist students in mastering new terminology and concepts conveyed through feedback, they can struggle to grasp the full meaning and purpose (Hartshorn & McMurry, 2020).

Purely text-based feedback limits the social negotiation of meaning and collaborative knowledge construction highlighted in Social Constructivism (Doolittle, 2014; Elwood & Bode, 2014). The theory suggests students require interactive dialogue with instructors to discuss, clarify, and internalise new knowledge from feedback comments (Lin & Lin, 2016). Social Constructivism also points to the integral role of the instructor in providing tailored assistance through questioning and modeling to help students grasp skills just beyond their current level of independent capability, known as the Zone of Proximal Development (ZPD) (Vygotsky, 1978). Without this support, students may fail to bridge the gap between their present abilities and the new abilities described in complex feedback.

Feedback Intervention Theory (FIT) further elucidates this challenge. FIT proposes that for feedback to positively impact learning, students must first accurately understand the feedback message and perceive it as credible (Wisniewski, Zierer & Hattie, 2020). When language used in feedback is too complex, it inhibits comprehension and acceptance, undermining the utility of the comments in the learning process (Wisniewski, Zierer & Hattie, 2020). Students who struggle to interpret dense vocabulary and phrasing cannot productively apply guidance to improve their work.

Finally, Feedback Design Theory (FDT) reinforces the need to carefully tailor the content and language of feedback to learner needs (Guskey, 2019). FDT suggests vocabulary that is too advanced or academic without accompanying examples or explanations may

undermine the clarity and specificity of feedback for some students (Brookhart, 2017). Using student-friendly wording supports clearer understanding of instructions and next steps conveyed through feedback.

In summary, Social Constructivism maintains that the accessibility of e-formative feedback is crucial as it enables students to engage in dialogue with instructors or peers, facilitating the co-construction of understanding. Accessible e-formative feedback should be presented clearly and understandably to support the social nature of learning. FIT emphasizes the importance of feedback being perceived as actionable by the student. For e-feedback to be accessible, it needs to be presented in a way that is easily understood, taking into account the student's prior knowledge, skills, and learning preferences. FDT focuses on the design and presentation of feedback to support effective learning. According to FDT, accessible e-feedback should be designed with clear, concise language, appropriate terminology, and familiar examples. It should be logically structured, easy to navigate, and presented through multiple modalities (text, audio, video, graphics) to cater to diverse learning preferences. FDT also emphasises considering accessibility features for students with disabilities, such as alternative text descriptions and assistive technology compatibility. Overall, these theoretical perspectives highlight that accessible e-feedback should be comprehensible, and tailored to students' needs and preferences, and designed to support social learning processes. By addressing these principles, instructors and institutions can enhance the effectiveness of e-formative feedback and support students in constructing knowledge and achieving their learning goals.

6.2.2 Timing of e-formative feedback

Data from this study also revealed that timeliness is key for making feedback maximally meaningful and impactful. When feedback is significantly delayed, several detrimental effects can occur. In the current study, I found that students received e-formative comments on their BAT learning tasks two to three weeks after the submission deadline. This reduced learning value as students struggled to recall assessed content and contextualise the feedback. This corresponds with past studies which found that students perceive delayed feedback as having little value or purpose (Winstone et al., 2017). The

present study echoes this, with students self-reporting lower engagement with delayed e-formative feedback.

In this study, I also found that delayed e-formative feedback is demotivating and makes students feel like their work does not matter, leading to disengagement and diminished effort. Students in this study reported that they did not use e-feedback to inform their learning of BAT because they received it when it was too late to act on it. The findings in this study support previous studies (Peacock, Murray & Scott, 2010; van der Kleij, 2019) which documented substantial evidence that students do not use e-formative feedback because they receive it too late – when they are no longer mindful of the content knowledge, topic or performance in question. It can be noted from the findings in this current study that delayed e-formative feedback hinders early detection and correction of flaws in understanding, and also hinders the ability to integrate the new knowledge.

From a Social Constructivist lens, feedback cannot act as a scaffold for comprehension when it is received too late (Vygotsky, 1978). This is because delayed feedback hinders both teachers and students from taking corrective action as early as possible, in cases of flaws in understanding – this hinders learning from feedback. Moreover, Social Constructivism highlights scaffolding at students' Zone of Proximal Development (ZPD) to build new understandings (Vygotsky, 1978). Without quick feedback, students lose opportunities for this real-time guidance to deepen emerging skills (Gredler, 2009; Shute, 2008). In other words, timely e-feedback has the potential to help students determine the ‘distance’ between their actual and potential level of development. Drawing from the findings in this current study, one may argue that delayed e-formative feedback interferes with students’ cognitive development because it delays the development of advanced mental structures (which may be acquired through effective formative feedback), which may in turn delay students from reaching their potential level of development. Similarly, FIT maintains that for feedback to positively impact achievement, it must be received while the assessment task is still salient so students can readily apply it (Ilgen, Fisher & Taylor, 1979). As evidenced in the findings, significantly delayed feedback reduced students' engagement, use, and perceived value, as content was no longer fresh.

The current study also found that lack of consistent internet access and connectivity issues contributed to delays in e-feedback for some students in remote contexts. This aligns with prior research showing disparities in online access impact timely feedback. For example, Sayers et al. (2022) examined K-12 teachers' experiences providing remote feedback during COVID-19 school closures. They found that unstable home internet connections hindered teachers' abilities to give rapid video or live conferencing feedback. Students with limited means lacked equivalent access. Similarly, Darling-Aduana and Good (2021) analysed patterns in a learning management system and found students in low-income neighborhoods had significantly lower online activity and feedback engagement compared to more affluent areas. Connectivity gaps were a likely factor. These studies corroborate the present findings that unreliable internet access can be a barrier to prompt e-feedback and student participation, exacerbating equity gaps.

The findings in this study indicate that delayed e-formative feedback is ineffective in supporting learning. Students in this study reported that delayed e-formative feedback hindered them from devising learning strategies on time in order to improve their future academic performance. From a Social Constructivist lens, delayed feedback constrains learners from monitoring their own learning progress and delays teacher-student collaboration to monitor students' current level of achievement in relation to the learning intentions (Sardareh & Saad, 2012). These Social Constructivist assumptions are in line with the findings in this study on the effect of delayed feedback, that is, delayed feedback interrupts instructor-student collaborative effort in the learning process which subsequently constrains students' understanding and knowledge construction (Sardareh & Saad, 2012).

While most students in this study were dissatisfied with the timing of e-formative feedback, data revealed that some students preferred and benefitted from delayed feedback during ERL. The students reported that immediate e-formative feedback required immediate processing of the feedback information (e.g. going over the feedback and the assessment right after completing it), which would increase their cognitive load and make it difficult for them to incorporate their instructors' comments in their remote learning. These findings suggest that stepping away and then revisiting work with fresh

eyes helped these students better evaluate and implement feedback (Evans, 2013; Gaertner, 2014; Weaver, 2006). This indicates that while not ideal for most, delayed feedback may still afford certain advantages for some self-regulated students.

However, the current study shows that e-formative feedback is most effective to support learning if provided immediately (a few days), instead of weeks after the submission deadline. The study shows that delayed feedback constrains the usefulness of feedback which consequently impedes learning. Therefore, an attempt should be made by instructors to provide timely e-formative feedback to enhance its effectiveness and usefulness as well as to encourage productive learning. Instructors and tutors should also consider access limitations and explore alternative offline feedback methods when connectivity is inconsistent. Expanding internet programmes for disadvantaged students is also crucial for mitigating delays.

6.2.3 Specificity of e-formative feedback

Feedback is the ongoing provision of information to guide students' performance (Hattie & Timperley, 2007). The provision of feedback is a critical element of the learning cycle, and to be effective, it must be specific (Brookhart, 2008). In light of this, the findings in this current study revealed that vague feedback comments reduced students' ability to comprehend and apply the feedback. This aligns with previous research emphasising the importance of specificity. Several studies have found that students struggle to engage with and benefit from feedback that lacks concrete details and explanations (Weaver, 2006; Ferguson, 2011). The present study echoes this, with students self-reporting that vague feedback creates uncertainty about precisely what to improve or how to do so. Students in this current study reported frustration with comments such as "*You misunderstood the article…*" and "*next time pay attention to finer details of the questions to improve your results*", which reinforces this need for unambiguous, actionable recommendations.

Students in this study reported that the e-feedback comments they received from their instructors were not specific to their learning progress and did not specify what they needed to do to improve their work and/or prepare for future learning events. For this

reason, they did not use feedback information because they were unsure about what they needed to do to improve the quality of their work. These findings correspond with Vu, Harbaugh, De Roo, Biesterveld, Gauger, Dimick and Sandhu's (2020) case study which revealed that students did not use feedback because it was not specific to their performance and did not provide suggestions for improvement. The importance of specific, detailed e-feedback aligns with key tenets of social constructivism learning theory. According to Social Constructivism, learning occurs through social processes and active meaning-making as students integrate new ideas with prior knowledge (Vygotsky, 1978). Providing ambiguous feedback disables metacognition – hinders students from reflecting on their work and constrains their development of self-monitoring skills through active cognitive engagement (Nicol, 2014). Students in this study reported that they could not monitor their learning during ERL because the e-feedback comments they received did not specify gaps in their learning and what they needed to do to improve.

A Social Constructivist lens suggests that e-feedback should help students monitor their current level of achievement in relation to their learning intentions (Sardareh & Saad, 2012). Feedback should specify students' learning progress to enable them to not only actively monitor their learning progress but also control their success in the learning process (Sardareh & Saad, 2012). The findings in this current study suggest that students were unable to use e-feedback comments to actively control their success in the remote learning process because the feedback they received on their BAT learning tasks did not specify good and weak sections of their work, and how to improve. Hence vague and generalised feedback limits students' ability to actively make meaning and reflect on their learning (Nicol, 2014; Vygotsky, 1978). Without clear details on strengths, weaknesses, and steps for improvement, students struggle to develop metacognitive skills to monitor their understanding and progress (Sardareh & Saad, 2012). Similarly, FIT states feedback must provide clear guidance for students to correctly interpret and apply it to their work (Ilgen et al., 1979). Ambiguous comments fail to close the gap between current and desired performance. FDT further emphasizes the importance of detailed, individualised feedback. FDT advises avoiding vague general phrases and instead providing specific examples and explanations tailored to each student's needs (Brookhart, 2017).

It was also found that students received generalised e-feedback comments that did not specify their individual learning progress. Students in this study reported that they received the same comments irrespective of the difference in their work and the mark achieved. This finding corresponds with the findings in Engelsen and Smith's (2010) and van der Kleij's (2019) case studies which documented that student received standardised feedback in the form of general phrases like "*try harder, good work, excellent work*", which they could not use to inform their learning because the comments did not specify how an individual student could improve his/her work. Furthermore, Ferguson (2011) established that students disengage from feedback perceived as too general or abstract. The present study echoes this, with students self-reporting that generalised and standardised e-feedback comments did not lead to greater learning possibilities.

The findings in this study suggest that overly broad, vague and generalised/standardised e-feedback comments constrain meaningful use by failing to provide students with sufficient scaffolding and direction for improvement. Teachers should ensure constructive criticality through clear, concrete, and personalised feedback.

6.2.4 Valence of e-formative feedback

In terms of the valence of e-formative feedback, the interview data in this current study revealed that students received either negative or positive feedback comments, depending on the mark achieved, but never received feedback that constituted a balance between positive and negative comments. Students in this study reported that they received positive comments on their work when they achieved a mark of 50% and above and negative comments when their mark was below 50%. This finding suggests that higher-achieving students received positive feedback and under-performing students received negative feedback. The findings in this study corroborate with a previous study (Gentrup, Lorenz, Kristen & Kogan, 2020) which documented that under-achieving students received negative comments on their work which led to frustrations and demotivated them to use feedback to improve their learning. In the same way, findings in this current study revealed that under-performing learners received feedback that showed errors rather than appraisal for the good work done.

The potential detrimental effects of overly negative feedback can be analysed through the lens of Social Constructivism theory. According to Social Constructivism, learning occurs through active meaning-making as students integrate new ideas within their existing knowledge frameworks (Vygotsky, 1978). Excessively critical feedback conflicts with this process as it diminishes students' participation and cognitive engagement needed for learning in a constructivist model (Meyer & Turner, 2006). Moreover, feedback focused on errors rather than development disrupts the collaborative negotiation of meaning between instructor and student (Richardson, 2003). In essence, overly harsh feedback fails to foster the social knowledge-building and learner autonomy that constructivism emphasises. Students disengage rather than meaningfully integrate critical comments. Similarly, FIT argues that for optimal motivation and utilisation, feedback must be perceived as fair and credible by the recipient (Ilgen et al., 1979). Comments seen as overly negative or critical may reduce acceptance.

The findings in this study revealed that negative e-feedback comments have a damaging psychological impact on students' learning. Students' responses indicated that they were demotivated by negative feedback and expressed a wish for positive feedback irrespective of their performance. These findings are consistent with previous literature revealing that students are more receptive to feedback that is positively valenced and includes supportive comments that highlight strengths rather than more critical feedback that emphasises errors or areas for improvement (Boudrias, Bernaud & Plunier, 2014; Forsythe & Johnson, 2017; Shute, 2008). Importantly, this previous research targeting student perceptions of assessment feedback has explored the effect of the valence of the written comments themselves. My findings provide unique evidence that the valence of e-formative feedback can influence student perceptions of the marker delivering the feedback, especially when comments either include positive or negative comments.

The results of this current study suggest that when students receive e-formative feedback that balances positive and negative comments, they are more likely to learn from feedback than when they receive either positive or negative comments on their work. Balanced, growth-oriented feedback aligns better with Social Constructivist principles by motivating active enquiry, scaffolding within the Zone of Proximal Development, and

building on existing conceptual frameworks. Students in this study reported that negative feedback that only pointed out their academic weaknesses demotivated them to learn, thus they often made the same mistakes in their next assessment tasks. Similarly, those students who received only positive comments could not identify their mistakes and/or weak sections in their work, thus also making the same mistakes in their next assessment tasks. The findings in this study concur with Brookhart's (2008) view that to enhance learning from feedback, feedback should be both corrective (negative) and reinforcing (positive). This study clearly shows that when feedback is either negative or positive, and does not constitute a balance between the two, students' productive learning will be constrained.

6.2.5 Amount of e-formative feedback

Providing the optimal amount of feedback is crucial for supporting student learning. Both excessive and insufficient feedback quantities can impede the learning process and outcomes in different ways. The findings in this study revealed that students received insufficient amounts of e-formative feedback comments that either pointed out their mistakes or praised their work, but not enough to help them understand what they needed to do to improve. This corresponds with previous research which documented that students were dissatisfied with the amount of e-formative feedback they received because it had little explanation or advice on how to improve the next assessment (Shrestha, 2022). The present study echoes this, with students self-reporting dissatisfaction with insufficient comments on their work that were unhelpful in preparing them for future learning events. According to Social Constructivism, scaffolding learning requires feedback calibrated to students' zone of proximal development (Vygotsky, 1978).

Feedback that is too little fails to support growth. Insufficient feedback deprives students of opportunities to deepen learning. Without adequate comments linking to learning goals and progress, students lack the scaffolding and guidance to reach the next level. Minimal feedback can also reduce motivation if students feel the teacher did not take enough time or care to provide meaningful responses. Insufficient feedback prevents constructive teacher-student dialogue around enhancing learning and academic performance.

The findings in this study also revealed that some students received voluminous e-feedback comments. Students who received voluminous e-feedback comments expressed dissatisfaction, stating that such feedback was overwhelming as they did not know how to use it to inform their earnings. This corresponds with a previous meta-analysis study which documented that a voluminous amount of formative feedback creates unnecessary load on the limited working memory capacity of students, making it difficult for students to apply feedback in their learning (Swart et al., 2019). Similarly, findings in this current study suggest that excessive feedback can overwhelm and inhibit learning. Students' responses show that when they receive feedback comments that are too abundant, they suffer from cognitive overload trying to process so much information. This can lead to confusion and an inability to determine the most critical improvement areas. From a Social Constructivist lens, one may argue that constructing knowledge is an active process driven by student's interests and self-regulation (Bruner, 1977). Feedback should encourage this autonomy, not over-direct. Moreover, feedback is most meaningful when integrated with students' existing frameworks (Doolittle, 2014). Large amounts of disconnected comments hinder this integration.

In essence, the volume of e-feedback must avoid cognitive overload while providing sufficient customised scaffolding for students to actively make sense of and integrate comments. Similarly, FIT states feedback must provide useful information without overloading students (Ilgen et al., 1979). Insufficient feedback lacks utility while too much becomes difficult to process and apply. Moderation and purpose should guide quantity.

To conclude this section, the findings about students' experiences of receiving e-formative feedback revealed issues with accessibility, timing, specificity, valence and amount of e-formative feedback during ERL. Findings revealed that the accessibility and timeliness of e-feedback play a major role in student motivation and utilisation. The findings also highlighted that sufficient specificity in e-feedback comments is needed to provide clear directions for growth. Additionally, the findings emphasised a preference for constructive yet supportive feedback that avoids potential detrimental effects from excessive or insufficient commentary.

Overall, the findings from this study highlight that merely providing e-feedback is insufficient for effective learning in remote environments. Instructors must intentionally and carefully design feedback practices to optimise various critical elements such as accessibility, timeliness, specificity, tone, and volume. This intentional engineering of feedback practices is emphasised by the FDT, which stresses the importance of "calibrating feedback quantity and scope to learner needs" (Brookhart, 2017, p. 18). Providing an excessive amount of feedback can overwhelm and confuse students, while overly sparse comments may fail to provide sufficient guidance and support for furthering their understanding. Striking the right balance in terms of feedback quantity and scope is crucial, and it requires instructors to have a deep understanding of the constraints and unique challenges posed by remote learning environments, as well as the core principles for making feedback meaningful and impactful.

Accessible feedback, delivered in a timely manner, with a constructive tone and appropriate level of specificity tailored to the student's needs, is more likely to be effectively utilised by students for improving their learning outcomes. However, achieving this optimal balance in feedback design and delivery requires careful consideration and incorporation of these insights through comprehensive instructor training programs and thoughtful integration within remote learning platforms and technologies. This has profound implications as online education continues expanding.

6.3 STUDENTS' RESPONSES TO E-FORMATIVE FEEDBACK DURING ERL

In the analysis of the data about first-year students' responses to receiving e-formative feedback on BAT e-formative assessment during ERL, four sub-themes emerged: Emotionality of e-formative feedback; Clarity of e-formative feedback; Focus on marks achieved; Self-regulated learning. The following discussion unpacks these sub-themes.

6.3.1 Emotionality of e-formative feedback

This study revealed that students have strong emotional reactions to e-formative feedback on e-formative assignments. Interview and focus groups data revealed that e-formative feedback received during ERL elicited a broad range of both negative and positive emotional responses. Students in this study reported that their inability to access

e-formative feedback due to the complexity of the language and/or vocabulary used in feedback comments elicited negative emotional responses of frustration, stress and confusion. The finding that the complexity of e-feedback language caused confusion and frustration aligns with previous research showing language complexity negatively impacts feedback receptivity (Evans, 2013; Hyland & Hyland, 2001). Students lacking background knowledge to comprehend terminology and academic vocabulary cannot construct meaning from feedback comments (Vygotsky, 1978). This lack of intelligibility elicits emotions like stress, anxiety, and diminished self-efficacy as students feel unable to meet expectations (Evans, 2013). Social Constructivism posits that students build understanding by integrating new ideas within their existing cognitive frameworks (Vygotsky, 1978). Incomprehensible language prevents this assimilation and risks an emotional disconnect between instructor and student during the co-construction of knowledge. Furthermore, incomprehensible language in feedback can elicit negative emotions like frustration and anxiety by preventing students from integrating new knowledge (Vygotsky, 1978). Unintelligible vocabulary disrupts collaborative meaning-making between instructor and student.

Interviews shed further light on how the valence of e-formative feedback impacts emotions. Students in this study described that negative feedback comments amplified negative reactions while positive feedback comments fostered positive effects. These findings align with prior research on the interplay between feedback, emotion, and motivation (Rowe & Fitness, 2018). While formative feedback aims to enhance learning, emotional impacts can hinder receptivity when not delivered sensitively. This suggests instructors should consciously employ "wise feedback" practices that mitigate threats, build confidence, and support growth (Gartmeier, Grubich, Puncken, Bauer & Heid, 2019). Similarly, FIT states that for optimal receptivity, feedback must not evoke excessive threat or negative affect (Ilgen et al., 1979). As shown in the findings, critical comments amplified negative reactions while praise fostered positive emotions. FDT also emphasizes the emotional impact of feedback, advising instructors to mitigate threats and build confidence through "wise feedback" practices (Brookhart, 2017). Harsh criticism or overly complex language risks harming motivation and self-efficacy.

The emotional dimension of e-formative feedback has critical implications for e-learning, where asynchronous communication poses risks of misinterpretation. Instructors must intentionally structure feedback that promotes positive mindsets and creates emotionally safe online environments. The prevalence of negative emotional reactions illustrates key principles in the theories around collaborative knowledge building and "wise feedback" that considers emotional impacts. Instructors must intentionally structure positive, intelligible feedback to foster receptivity in online environments where communication nuances can be lost. Attention to emotional dimensions is critical.

6.3.2 Clarity of e-formative feedback

In relation to the clarity of e-formative feedback, findings in this study revealed that students received unclear e-feedback. Students in this study reported that they received vague, ambiguous e-feedback comments in which their instructor underlined and/or circled errors, put punctuation marks, and inserted emoticons. Students reported that such e-feedback left them confused and unaware of what they did wrong and what they needed to do to improve. The finding that vague, ambiguous e-feedback confused students aligns with previous research emphasising clarity's importance for comprehension and utilisation (Weaver, 2006; Hyland & Hyland, 2001). Students in this current study frequently identified feedback in the form of a punctuation mark (question mark or exclamation mark), and emoticons (sad face ☹ or happy face ☺) as frustrating and unhelpful for guiding revisions. This reflects Weaver's (2006) identification of clear, specific explanations as pivotal for engagement. The importance of clear e-formative feedback aligns with key principles of Social Constructivism learning theory. According to Social Constructivism, students actively construct knowledge by integrating new ideas within their existing cognitive frameworks (Vygotsky, 1978). Unclear feedback contradicts this process. This is because unclear comments do not provide the scaffolding students need to build new understandings within their zone of proximal development (Richardson, 2003). Furthermore, unclear comments create uncertainty about how to improve, hindering students' ability to actively make meaning from comments (Wertsch, 1985).

The findings in this study also revealed that students misinterpreted e-feedback comments that lacked clarity. Consequently, they did not incorporate such feedback into their learning. The finding that unclear e-feedback comments lead to student misinterpretations aligns with prior research showing unclear comments hinder comprehension (Weaver, 2006; Carless & Boud, 2018). Similarly, FIT states that feedback must be clearly communicated for accurate interpretation and use (Ilgen et al., 1979). As evidenced in the findings, ambiguous feedback led to misconceptions and uncertainty about how to improve. Students in this study expressed confusion and frustration about the intent behind unclear or vague suggestions for improvement. This substantiates Weaver's (2006) identification of clarity as the key to understanding. FDT also emphasizes constructing feedback using precise language and examples to enhance clarity for students (Brookhart, 2017). Cryptic marks or brief comments caused confusion. When e-feedback lacks clarity, students struggle to make sense of comments independently, and remote contexts limit real-time clarification dialogue. This impedes the negotiated process of building understanding emphasised in social constructivism (Hyland & Hyland, 2006).

Students in this study expressed that follow-up conversations about e-feedback would mitigate confusion from complex and/or unclear comments. This aligns with Hyland and Hyland's (2001) conclusion that instructors must clarify unfamiliar terms and ideas within e-feedback to support students' emerging academic literacy. It further indicates that purposeful instructor-student dialogue around feedback enhances clarity. The need for precisely communicated e-feedback has critical implications for online learning, where misinterpretation risks increase. Findings in this study demonstrate that student-centered language, and collaborative discussion can enhance clarity of e-formative feedback despite remoteness. Hence Purposeful instructor-student dialogue around feedback can mitigate these challenges highlighted in Social Constructivism by supporting collaborative co-construction of meaning. Attention to clear explanations is critical, especially in remote contexts.

6.3.3 Focus on marks achieved

Data from this study revealed that when students received e-feedback comments in conjunction with a mark, they only focused on the mark achieved and ignored the corresponding comments. Students in this study reported that the marks they received for their e-assessments were more important than the comments because marks determined whether they passed or failed. The finding that students paid more attention to marks than e-feedback comments align with previous research showing marks often overshadow comments (van der Kleij, 2019; Weaver, 2006). Students in this current study frequently referenced marks as their main source of feedback, while largely overlooking corresponding comments about their work. This reflects Butler's (1988) conclusion that marks have primacy. However, interviews and focus group discussions in this study revealed that students valued specific, actionable comments for revising work, despite the prominence of marks. This substantiates Weaver's (2006) identification of personalised feedback as pivotal for engagement when given alongside marks. It indicates that purposeful, growth-oriented feedback can partially overcome marks' dominance.

The tendency for students to prioritise marks over qualitative feedback aligns with Social Constructivist views on the importance of personalised dialogue for co-constructing knowledge (Vygotsky, 1978). As Winstone et al. (2017) discuss, marks often become the dominant focus, overshadowing comments intended to provide scaffolding tailored to students' ZPD. This constrains the collaborative meaning-making and discourse emphasised in Social Constructivism (Carless, 2006). Without substantive discussion around feedback comments, students struggle to actively integrate new understandings (Nicol, 2010).

This marks focus also reflects FIT's identification of marks as commanding student attention, often reducing engagement with formative comments (Ilgen et al., 1979; Lipnevich & Smith, 2009). Students view marks as the definitive evaluation, causing them to overlook supplemental qualitative guidance (Havnes et al., 2012). However, as Brookhart (2008) discusses, while marks retain primacy, detailed feedback comments highlighting improvement pathways can partially counterbalance the dominance. This

corroborates Weaver's (2006) finding that personalised comments do enhance perceived utility when provided alongside marks.

Overall, the tendency to focus on marks versus qualitative feedback directly relates to core principles in Social Constructivism and Feedback Intervention Theory regarding dialogic co-construction of knowledge. As Nicol (2010) advises, fostering substantive discussions around feedback and conveying its purpose as scaffolding for growth is essential to motivate meaningful engagement and integration. This has important implications for deliberately designing assessment systems that emphasise formative comments over marks.

6.3.4 Self-regulated learning and motivation

Self-regulation in learning can be described as the ability to actively set goals in learning, take responsibility for learning and put effort into attaining the goals (Asikainen, Parpala, Virtanen & Lindblom-Ylanne, 2013). Self-regulated students are aware of themselves as learners and they play an active role in their own learning (Asikainen et al., 2013).

The findings in this study revealed that although most students did not use e-formative feedback to inform their learning, a few students played an active role in making feedback useful in their learning of BAT during ERL. These students reported that in instances where feedback language was too complex, they sought interpretation and clarity from a more knowledgeable other in order to make feedback understandable and useful. The finding that some students effectively used e-feedback to self-regulate aligns with research showing autonomy and personal initiative are key to online learning success (Barnard et al., 2009). Interviews in this study revealed these self-driven students valued formative comments to independently assess and improve their work. This reflects Barnard et al.'s (2009) conclusions that self-regulation is pivotal when instructors have limited ability to monitor progress remotely.

The finding that some self-driven students used e-feedback to actively construct meaning and self-regulate learning also aligns with Social Constructivism's emphasis on personalised guidance within a student's zone of proximal development (Vygotsky, 1978). The students seeking feedback clarification through social interaction demonstrated

personalised guidance enabling them to co-construct meaning within their zone of proximal development. Even incomplete understanding of complex feedback can foster greater learning through collaboration. This echoes the view students must actively build knowledge by socially making sense of suggestions rather than simply having correct ideas transmitted one-way. FIT affirms that the students persisting through complex language to leverage feedback shows their engagement was sufficiently motivated to sustain the necessary cognitive effort. Rather than a drain on mental resources, their proactivity reveals e-feedback's affirmative role in self-improvement. This highlights the importance of constructive feedback and support for maintaining effort, self-efficacy and depth of processing.

However, interviews also highlighted the critical role of scaffolded support in developing those self-regulated learning capacities, substantiating Social Constructivist notions of building skills within students' ZPD (Vygotsky, 1978). From a Social Constructivist perspective, personalised e-formative feedback provides the guidance necessary for actively making meaning from comments rather than passively receiving scores (Nicol & MacFarlane-Dick, 2006). The findings in this study suggest that purposeful e-feedback can foster autonomous, motivated students even in suboptimal remote contexts.

To conclude this section, the findings in this study revealed students' subsequent responses to receiving e-formative feedback during ERL. Data from semi-structure interviews and focus group discussions demonstrated that the emotional dimension of feedback has a significant impact; overly critical feedback elicits negative reactions like stress, confusion, and demotivation. These feelings deter receptivity and use of comments. Furthermore, the findings revealed that ambiguous, vague comments prevent comprehension of feedback, causing students to dismiss unfamiliar suggestions and not use feedback as guidance to inform learning. Finally, the primacy given to marks overshadows the utility of e-formative feedback for improved academic performance. Despite its benefits, e-feedback goes overlooked when students fixate on marks as the metric of success.

In essence, emotional, clarity, and grading factors frequently disrupt meaningful student engagement with feedback. Multifaceted strategies are required in online contexts to

address these barriers, including emotionally aware delivery of comments, individualised explanatory language, peer discussion, self-assessment training, and learning-oriented grading philosophies. Without concerted efforts to improve practices informed by students' experiences, e-feedback risks being marginalised. However, as this study's findings confirm, carefully engineered student-centered approaches can mitigate the identified challenges and motivate students to use e-feedback comments to inform their learning.

6.4 CONCLUSION

In this chapter, I discussed my findings about first-year students' experiences of receiving e-formative feedback and their subsequent responses to feedback. A central finding is that remote delivery cannot be an excuse for delayed, inaccessible, or low-quality feedback if instructors hope to support engagement and learning. Prompt, scaffolded, empowering feedback remains vital. However, unique constraints emerge around emotional impacts, language barriers, and technological skills that require intentional navigation. Ultimately, feedback is not a transactional act but rather a collaborative process of fostering growth and self-regulation capacities. In remote environments, nurturing these skills demands creativity, empathy, and techno-pedagogical ingenuity to be responsive to diverse needs. Students' feedback literacy skills must be continuously developed.

As the findings demonstrate, one-size-fits-all approaches will not suffice given the variability in students' needs and preferences. Instructors must gather ongoing insights from the student perspective, while students also have a responsibility to identify their goals, challenges, and beliefs about feedback. This mutual partnership and dialogue around e-formative feedback experiences is essential for cultivating effective practices at scale.

CHAPTER 7 SUMMARY AND RECOMMENDATIONS

> "*Timely and informative feedback can help students recognise and correct misconceptions, motivate them to acquire knowledge, and increase their confidence and motivation to learn.*" (Jensen, Bearman & Boud, 2021, p. 7)

7.1 Introduction

This concluding chapter presents the summary of the main findings and attempts to offer insights and implications of first-year students' experiences of receiving e-formative feedback during ERL. This thesis was necessitated by the acute contextual gap in the literature on students' experiences of receiving e-formative feedback during ERL, with particular reference to first-year students' experiences of receiving e-formative feedback at a public university. This research aimed to explore first-year students' experiences of receiving e-formative feedback on e-formative assessment during ERL, explore their responses to this feedback and explore the underlying reasons for their responses within the context of ERL. In pursuance of that, this research sought to address the following critical questions:

1. What are first-year students' experiences of receiving e-formative feedback on e-formative assessment during ERL?
2. How do first-year students respond to the e-formative feedback they receive during ERL?
3. Why do first-year students respond to e-formative feedback the way they do during ERL?

This concluding chapter begins by providing an overview of the study, summarising the key elements of the research phenomenon explored, the methodology implemented, data collected and analysed, and central findings uncovered. The chapter then outlines the major findings that emerged from the Thematic Analysis (TA) of student interviews and focus group discussions regarding their experiences and perspectives on receiving and utilising e-formative feedback for learning during ERL. These salient themes depict the factors shaping students' interpretation and use of e-feedback.

Based on the central findings, I propose an original conceptual framework model grounded in the empirical data analysed that encapsulates the interconnected relationships between key variables influencing students' formative feedback experience and subsequent learning in digital contexts. This data-driven student feedback process model constitutes a key theoretical contribution to enriching the existing literature. Additionally, this final chapter discusses several vital practical and policy implications stemming from the research findings to enhance the provision of responsive, motivational and equitable e-assessment support, especially for vulnerable student groups lacking sufficient scaffolding amidst turbulent transitions. Targeted recommendations are provided based on privileging marginalised student voices and needs.

The limitations of the study linked to sample size, population bounds, and data collection timing are summarised, along with the delimitations set for this study. These boundaries of investigation provide a springboard to make evidence-based suggestions for critical areas of future research needed to further elucidate the underexamined phenomenon of digitally mediated formative assessment processes from the student perspective across institutional contexts.

Finally, I provide a reflective commentary as the researcher regarding my enriching discoveries gained through the investigative process and how those have refined my perspective and practice as an embedded tutor striving to uplift diverse student voices. Concluding thoughts on the pressing need to foster more empowering cycles of teaching, learning and assessment anchored in social justice aims of amplifying marginalised students close the dissertation.

7.2 OVERVIEW OF THE STUDY

In Chapter 1, I presented the introduction where I provided the contexts (international, national and institutional) in which my study was situated. The introduction discussed assessment transformations in higher education spurred by the COVID-19 pandemic. With traditional face-to-face instruction disrupted, e-formative feedback became even more crucial for student progress, yet also encountered novel barriers amplified by remoteness. The switch surfaced longstanding feedback issues while introducing new

complexities. Motivated by students' feedback challenges and the dearth of research in this specific context, I embarked on an in-depth qualitative study to illuminate these lived experiences. The introduction chapter also discusses rationale for the study, research problem, and objectives of the study as well as the critical questions that guided the study. Lastly, I presented the research design and method; and how the entire study was organised to provide understanding to the reader.

Chapter 2 focused on the extant literature on e-formative assessment and feedback during ERL in higher education which revealed the following key issues: Despite broad recognition of feedback's importance, studies across disciplines show that students still struggle to access and utilise feedback effectively in remote environments. The reviewed studies documented that most students faced challenges relating to accessibility, revealing that a lack of technological skills and competence, unreliable internet connectivity and a lack of personal technological devices constrained students' access to e-feedback during ERL. Other studies found that students could not use e-feedback to inform their learning because they received comments that lacked specificity - did not guide students' thinking and give strategies for improvement. Furthermore, the studies revealed that the students who received e-feedback comments that did not balance constructive critiques with acknowledgement of strengths and successes lost intrinsic motivation to use feedback in their learning. Additionally, a few studies deeply explore the thinking behind students' feedback perspectives and engagement. The implication of this was that more studies are required to present an opportunity to give voice to student experiences within the uncharted South African ERL context. Furthermore, debatably, most studies employed the quantitative approach. Although they revealed some useful insights, the use of a quantitative approach provided only limited insights into a social condition like students' experiences of receiving e-formative feedback during ERL which gave relevance to this study.

Chapter 3 outlined the theoretical lens for the research. This study integrated three key theoretical frameworks: Social Constructivism, Feedback Intervention Theory (FIT), and Feedback Design Theory (FDT) to examine how first-year students responded to e-formative feedback during Emergency Remote Learning. Social Constructivism analysed

the social processes involved in making meaning from feedback. Feedback Intervention Theory explored the individual psychological stages of receiving and using feedback. Feedback Design Theory evaluated the quality and structure of the feedback itself. Integrated, these frameworks provided a multi-layered understanding of the complex individual, social, contextual, and design factors that shaped students' engagement with feedback in these unprecedented learning environments precipitated by the pandemic. The insights gained informed ways to enhance support structures and optimise feedback delivery to foster effective remote learning experiences.

In Chapter 4, a detailed explication of the research design and methodology was presented. I explained the research design and methodology used in the study in order to answer the posed research questions. I approached this study from a qualitative perspective. A qualitative approach allowed me to explore e-formative feedback practices in higher education during ERL through the social experiences of first-year students. A qualitative approach allowed me to give an in-depth description of first-year students' experiences of receiving e-formative feedback during ERL. The paradigm that guided this study was the interpretive paradigm, developed from the interpretivism theory. The interpretive paradigm is concerned with understanding the subjective world of human experience (Cohen, Manion & Morrison, 2011). It maintains that in order to understand human actions, one should see the world through the eyes of the actor doing the action rather than through the use of scientific methods (Collins, 2010). I located this study in the interpretive paradigm because I sought to explore first year students' experiences of receiving e-formative feedback from the subjective views and experiences of each student participant. I believe that students' experiences of receiving e-formative feedback cannot be quantitatively observed or measured but can be explored through active engagement with the students. Thus, I explored first-year students' experiences of receiving e-formative feedback during ERL through active interaction and engagement with the study participants.

Furthermore, the students who participated in this study were purposively sampled from a single discipline, Becoming a Teacher (BAT) course, to create a 'bounded setting', which was beneficial for providing a shared understanding of e-formative feedback experiences

that emerged from the semi-structured interviews and focus group discussions. Students in this study were also conveniently sampled based on their availability and accessibility within the given timeframe and resource constraints of this research study. I adopted Thematic Analysis as a method to analyse data (Braun & Clarke, 2022). This allowed me to generate themes and use them to discuss the findings of this study. Finally, ethical issues like validity and reliability (trustworthiness) of the study were discussed.

In the data presentation, Chapter 5, I identified key data selections from the interviews and focus groups transcripts in response to the research questions: What are first-year students' experiences of receiving e-formative feedback on e-formative assessment during ERL? How do first-year students respond to e-formative feedback they receive during ERL? The themes were arranged in no particular order; each theme was not mutually exclusive, there were overlaps. Nine main themes emerged, all of which show how first year students experienced and responded to the e-formative feedback they received on their BAT e-formative assessment during ERL. Issues of accessibility, timing, specificity, valence, amount, emotionality, and clarity of e-formative feedback emerged. Other findings that emerged in this study relate to students' tendency to focus on marks and ignore corresponding feedback comments as well as issues of self-regulated learning and motivation. The themes depict a group eager to develop but often disconnected from the very processes intended to fuel their growth during a challenging educational moment.

The discussion of the key findings in relation to existing literature and theoretical frameworks adopted in this study were the focus of Chapter 6. Here distinct links to existing findings were presented in terms of how the current findings resonate with, contradict or expand existing knowledge about.

7.3 DELINEATING THE FINDINGS

In this section, I synthesise the key findings of my thesis to proffer tentative answers to the research questions. There were three research questions that this study aimed to answer. The research questions were motivated by my interest in understanding the first-year students' experiences of receiving e-formative feedback during ERL. The findings of

this study revealed that participants had a multiplicity of experiences when receiving and enacting e-formative feedback on e-formative assessment.

7.3.1 Research question one: What were first year students' experiences of receiving e-formative feedback on e-formative assessment during ERL?

Accessibility of feedback

In this study, many students lacked the technological tools and skills required to access online feedback, reflecting the digital divide where socioeconomic status impacts accessibility (Gorski, 2009; Robinson, 2009). Their inability to obtain feedback reflects the relationship between accessibility and socioeconomic status, as poorer students without devices and internet connectivity faced barriers to feedback access (Lu & Law, 2012). This aligns with the literature arguing that feedback perpetuates existing inequities unless measures are taken to address student diversity (Smailes & Gannon, 2020; Winstone & Boud, 2020). The language used in feedback also mediated accessibility, as unfamiliar academic terminology obstructed comprehension for some students - illustrating the socially constructed nature of disciplinary discourse that can marginalise non-traditional students (Burke, 2009; Lillis & Turner, 2001). Students' feedback experiences revealed the "hidden curriculum" where academic skills and norms are implicitly expected but not explicitly taught (Margolis et al., 2001). A critical approach is needed to address systemic inequality by making feedback more inclusive.

Timing of e-formative feedback

The study found that most students reported receiving delayed feedback on their work, often 2-3 weeks after submission. This untimely feedback came too late for students to incorporate and improve future work, as they had already progressed to new topics by then, thus defeating the core purpose of constructivist feedback as proximal guidance attuned to students' present needs (Narciss, 2008; Shute, 2008). Delayed feedback prevented the timely identification of mistakes and reduced opportunities for students to actively build on prior knowledge in a responsive manner (Gibbs & Simpson, 2004). While a few students were amenable to delayed feedback to avoid cognitive overload, most of them emphasised the critical importance of prompt feedback in remote learning contexts

to enhance motivation, quickly correct misunderstandings, and effectively scaffold self-regulated learning tailored to their current knowledge levels (Shute, 2008; Nicol, 2009). Students articulated the need for immediate feedback to see their strengths and weaknesses early so that they could improve before forgetting content (Chickering & Gamson, 1987). However, factors like internet connectivity issues caused additional feedback delays for some. Overall, the findings suggested that delayed feedback fails to provide the customisable, well-timed scaffolding essential for empowering students to actively advance their understanding in alignment with constructivist principles (Nicol, 2009). The study highlights the pivotal role that timely feedback plays in enabling students to actively construct knowledge by identifying and self-correcting gaps, which is particularly crucial in remote learning contexts (Gibbs & Simpson, 2004).

Specificity of feedback

First-year students expressed dissatisfaction with vague e-formative feedback that failed to pinpoint areas for improvement in their work and lacked specificity in highlighting both strong and weak sections (Weaver, 2006; Carless, 2006). The interviews and focus group discussions revealed a preference for feedback specifying learning progress, achievements, and areas for improvement (Lipnevich & Smith, 2009). The absence of detailed feedback, especially regarding assessment criteria, left students uncertain about meeting expectations (Higgins et al., 2002). Additionally, first-year students reported receiving generalised comments that were not tailored to individual performance, causing frustration and a sense of unfairness. The desire for differentiated e-formative feedback was emphasised, highlighting its role in helping students gauge their progress and develop self-regulated learning capacities (Nicol & Macfarlane-Dick, 2006). The lack of specificity hindered their ability to incorporate feedback into their remote learning of BAT, impacting academic performance (Poulos & Mahony, 2008). Despite widespread dissatisfaction, some students expressed motivation when receiving generic positive comments, viewing them as an encouragement to study harder. However, the majority emphasised the detrimental effects of non-specific e-formative feedback on their learning experience during ERL (Weaver, 2006; Carless, 2006). The findings underscore the significance of specific feedback in directing students' efforts towards targeted

improvements, strategic learning, and overall academic success during remote learning contexts (Lipnevich & Smith, 2009).

Valence of feedback

The findings revealed a discernible correlation between students' achieved marks and the tone of e-formative comments they received. First year students consistently reported receiving positive comments when attaining 50% or above and negative comments when scoring below 50% on e-formative assessment tasks (Lizzio & Wilson, 2008). The interviews highlighted the inconsistency between corrective (negative) and reinforcing (positive) feedback. Students expressed a preference for a balanced approach that not only highlighted errors in their work but also provided constructive suggestions for improvement (Brookhart, 2008). Surprisingly, none of the students reported receiving e-formative feedback that struck this balance, with the majority indicating a tendency towards comments pointing out errors rather than acknowledging strengths (Lizzio & Wilson, 2008). Importantly, students conveyed that knowing their errors alone did not contribute significantly to their learning experience. They expressed a desire for feedback that went beyond error identification, providing actionable suggestions for improvement (Hattie & Timperley, 2007). This sentiment was particularly pronounced in the challenging context of Emergency Remote Learning, where face-to-face consultations were limited (Hodges et al., 2020). Furthermore, students emphasised the psychological impact of feedback, revealing that negative comments had a demotivating effect on their learning during ERL (Ryan & Deci, 2000). The majority expressed a preference for positive comments, even in the face of unsatisfactory marks, as they found such feedback to be motivating and conducive to a positive learning experience (Brookhart, 2008).

Amount of Feedback

First year students uniformly reported a deficiency in the quantity of e-formative feedback comments received on their BAT assessments (Lizzio & Wilson, 2008). They expressed dissatisfaction with the insufficient feedback, which often failed to provide a comprehensive understanding of their strengths, weaknesses, and actionable insights for improvement (Burke, 2009). Students highlighted the need for a more substantial amount of feedback to effectively guide their learning process (Nicol, 2010).

Interestingly, some students conveyed that the scarcity of e-formative comments not only hindered their understanding of necessary improvements but also had detrimental effects on their confidence and self-efficacy (Bandura, 1977). A single comment pointing out an error led one student to doubt her ability to succeed academically during ERL. Others echoed similar sentiments, indicating that limited comments created uncertainty and hindered their confidence in remote learning (Ryan & Deci, 2000). Moreover, the study revealed a subset of students who received excessive e-formative feedback, finding it overwhelming and demotivating. The abundance of comments, highlighting numerous points for improvement, left these students unsure of which errors to address and how to address them (Weaver, 2006). The voluminous feedback was perceived as too detailed and interfered with their ability to utilise it effectively for remote learning (Nicol, 2010).

Emotionality of e-formative feedback

First-year students on BAT e-formative feedback during Emergency Remote Learning (ERL) revealed a spectrum of emotional responses, both negative and positive. Several factors influenced these emotional reactions, shedding light on the complex dynamics between feedback and emotions (Pekrun et al., 2002). Students reported that their inability to access e-formative feedback, attributed to the language complexity and vocabulary used in comments, triggered negative emotions (Rowe & Wood, 2008). Frustration, anger, and a sense of being upset were common responses when students encountered feedback written in challenging language (Pekrun et al., 2002). Consequently, their emotional reactions hindered the utilisation of feedback for their remote learning in the BAT course during ERL (Rowe & Wood, 2008). Furthermore, the findings indicated a correlation between the valence of feedback and corresponding emotions. Positive feedback generates positive emotions, such as feeling good and a sense of accomplishment (Deci & Ryan, 1985). In contrast, negative feedback induced negative emotions, including shame and frustration (Craven et al., 1991). Notably, students did not effectively incorporate either positive or negative feedback into their learning processes (Hattie & Timperley, 2007).

Interestingly, even positive feedback, when lacking specificity, elicited negative emotions and failed to motivate students to integrate it into their learning (Lipnevich & Smith, 2009).

Students expressed a desire for feedback that not only acknowledged their achievements but also provided specific suggestions for improvement (Hattie & Timperley, 2007). This nuanced preference reflected their motivation to use e-formative feedback to enhance their learning experience in the BAT course during ERL (Ryan & Deci, 2000).

Clarity of e-formative feedback

First-year students in this study expressed a reluctance to utilise e-formative feedback received on their BAT assessments during Emergency Remote Learning (ERL) due to its perceived lack of clarity and difficulty in understanding (Weaver, 2006; Winstone et al., 2017). The feedback often involved the use of digital tools on the university's Canvas LMS, such as highlighting, underlining, circling errors, inserting punctuation marks, and even including emoticons. However, the students reported confusion and a lack of awareness regarding the meaning behind these digital annotations, leading them to refrain from incorporating such feedback into their remote learning (Randolph, 2017).

Students provided firsthand accounts of their challenges in deciphering e-formative feedback that employed punctuation marks, including question marks and exclamation marks, as well as emoticons such as sad and happy faces. The consensus among the students was that unclear feedback was unhelpful in preparing them for subsequent learning events (Winstone et al., 2017). Despite their desire to leverage e-formative feedback for their learning during ERL, the lack of comprehension caused frustration and deterred its effective utilisation (Carless, 2006). The interviews revealed a preference among the students for clear and easily understandable e-formative comments. They articulated a need for feedback that went beyond mere punctuation marks, circles, and underlined errors (Randolph, 2017). This preference indicated a desire for feedback that not only pointed out errors but also provided explanations, clarifying why specific sections of their work were deemed weak (Burke, 2009). In essence, the students wished for e-formative feedback that offered a more comprehensive understanding of their performance, enabling them to make meaningful improvements in their learning of BAT during ERL (Higgins et al., 2002).

Focus on marks achieved

First year students in this study displayed a tendency to prioritise marks over e-formative feedback comments, considering the former as clearer indicators of their performance (Butler, 1988). The findings indicated that students perceived marks as more significant than the accompanying comments and often ignored the feedback in favour of focusing solely on the achieved mark (Sinclair & Cleland, 2007). Participants expressed that marks provided a straightforward assessment of their progress, influencing their perception of success or failure in the BAT course during Emergency Remote Learning (ERL) (Gibbs, 2006). The interviews highlighted students' inclination to value good marks as a sign of doing well in the subject (Torrance, 2007). The data suggested that first year students did not actively utilise e-formative feedback to inform their remote learning during ERL (Gibbs & Simpson, 2004). Instead, they concentrated on marks as a tangible measure of their learning progress in the BAT course. Students acknowledged that the fear of failure heightened their emphasis on marks, influencing their learning approach (Ryan & Deci, 2000). Remarkably, participants admitted to neglecting the opportunity to learn from their mistakes when resubmitting assessment tasks, focusing primarily on improving their marks (Torrance, 2007). The prevailing sentiment among first-year students in this study was a tendency to disregard e-formative feedback comments, emphasising the importance of marks for assessing their academic performance (Sinclair & Cleland, 2007).

While the majority of first-year students in this study did not incorporate e-formative feedback into their learning during Emergency Remote Learning (ERL), a subset of students demonstrated a proactive approach to leverage feedback for academic improvement (Nicol & Macfarlane-Dick, 2006). These students, despite facing challenges related to accessibility, timing, specificity, valence, amount, emotionality, and clarity of e-formative feedback, actively engaged with the feedback to enhance their academic performance (Zimmerman, 2008). Their responses reflected a commitment to self-regulated learning and intrinsic motivation, emphasising the importance of being active participants in the learning process (Ryan & Deci, 2000).

Self-regulated learning and motivation

The students' responses indicated a sense of responsibility in their learning process, highlighting their proactive efforts to transform challenging e-formative feedback into a valuable resource (Zimmerman, 2008). Despite facing similar issues with late, non-specific, and unclear feedback, these self-regulated learners actively engaged with the feedback to prevent the repetition of mistakes in subsequent e-assessment tasks (Nicol & Macfarlane-Dick, 2006). The findings suggest that, despite the broader challenges associated with e-formative feedback during ERL, certain students took charge of their remote learning, strategically using feedback to gain a comprehensive understanding of the BAT course content (Ryan & Deci, 2000).

7.4 RESEARCH QUESTION THREE: WHY DID FIRST YEAR STUDENTS RESPOND TO E-FORMATIVE FEEDBACK THE WAY THEY DID DURING ERL?

The COVID-19 pandemic precipitated an abrupt shift to ERL in higher education institutions around the world. For first-year university students, this transition came at a critical juncture as they were just embarking on their post-secondary journey and adjusting to the new landscape of higher education.

Social Constructivism posits that students construct knowledge and meaning through social interaction and discourse (Kim, 2001). While ERL&L created opportunities for accessing resources and connecting with peers online, the pandemic hindered the collaborative learning experiences envisioned by Social Constructivism. Opportunities for in-person group work, discussions, and shared reflection around e-formative feedback were restricted due to physical distancing requirements and the move to predominantly asynchronous online learning. This impacted students' ability to make meaning from e-formative feedback through social processes. As Dhawan (2020) found, a lack of community feeling was a key challenge noted by students adjusting to emergency remote online learning during COVID-19.

At the same time, ERL forums and discussion boards can still allow for meaningful exchanges between students around e-formative feedback when intentionally facilitated. Instructors can foster collaborative interpretation of feedback by encouraging respectful

interactions through discussion prompts and guidelines. As MacArthur and Villagran (2015) note, online communities that provide peer support and knowledge sharing around coursework can enhance student learning. This sense of community becomes even more critical in times of disruption. Through online dialogue and reflection, students can pose clarifying questions about feedback, learn from peers' perspectives, and collectively make sense of expectations, ultimately improving their comprehension and application of e-formative feedback.

However, the findings reveal several issues that hindered meaningful dialogic exchanges through feedback during ERL. Firstly, accessibility challenges meant learning was not adequately scaffolded to students' Zone of Proximal Development (ZPD) (Vygotsky, 1978). Vygotsky emphasised scaffolding students' learning within their ZPD to promote cognitive growth. The ZPD represents the difference between what students can achieve independently and with assistance. Targeted guidance in this zone enacts Vygotsky's notion of cognitive apprenticeship, enabling students to advance their competencies. However, accessibility issues obstructed scaffolding students within this optimally challenging zone. The lack of accessible feedback prevented tailored support attuned to students' ZPD. Without feedback available to provide prompts calibrated to their developmental level, students missed out on the intermetal functioning central to social constructivism, impeding joint progress in understanding.

In their first-year of university, students initially engage with and notice the feedback (Winstone et al., 2017). The unprecedented shift to online due to COVID-19 meant that many first-year students were accessing ERL systems for the first time. Unfamiliarity with how to locate and view e-formative feedback in the system possibly hindered student's initial use. As Napoles and Luna-Nevarez (2020) found, nearly half of students adjusting to remote learning during the pandemic cited issues accessing online technology and resources. Technical problems like login errors or platform glitches might also obstruct access to feedback. Without proper training and insights into ERL systems, students cannot move to deeper processing and use of the feedback.

The disruptions to learning sparked by the pandemic also negatively impacted interpretation. Students were dealing with the uncertainties of a global health crisis while

simultaneously adjusting to unfamiliar online learning environments, which may have generated stress and anxiety hindering their ability to comprehend e-formative feedback. Pre-existing anxieties about performance and self-efficacy, exacerbated by the challenges of emergency remote teaching, can act as barriers to effectively interpreting feedback (Ryan & Henderson, 2018). Students might also lack confidence in their skills for independent online learning. Coupled with the overload of navigating numerous technology platforms, this affected their cognitive load and overwhelmed their ability to process feedback meaningfully (Gillette-Swan, 2017). Explicit instructor guidance is key, as Evans (2013) suggests frequent reassurance and clearly explaining all aspects of e-formative feedback enhances interpretation. Peer learning communities created within ERL can also allow students to discuss feedback and assist one another in clarifying ambiguous aspects.

Adding to students' stress and anxiety, they lacked in-person resources and support previously available on campus, like academic advisors, tutors, and learning centres, limiting their ability to act on feedback. The disruptions to daily life during the pandemic hampered motivation, as students dealt with illness, family responsibilities, financial insecurity, and stressors outside the course, making it difficult to fully engage with learning and feedback (Smalley, 2020). While intrinsic motivation is key, developing self-regulation skills is also crucial for utilising feedback effectively (Winstone et al., 2017). First year students were still cultivating these skills and so providing scaffolding like checklists, exemplars, and opportunities to track progress over time was imperative to support the implementation of feedback into future work during ERT&L.

Henderson et al. (2019) found that concise, individualised comments are more meaningful to students. Vague, overly complex language is even harder to decipher in online environments where a lack of in-person cues can create ambiguity. Using concrete examples helps students grasp expectations and comprehend standards for improvement, which protects against misunderstandings amplified by the anxieties of adjusting to unfamiliar digital learning. Feedback Design Theory (FDT) also advocates for a positive tone focusing feedback on progress students are making towards goals (Shute, 2008). Growth-oriented language like "consider revising your thesis to more directly

answer the question" reinforces effort and empowers students to feel capable of success despite the disruptions caused by the pandemic.

Additionally, FDT points to the value of timely and frequent feedback. Learning online during COVID-19 intensifies the need for prompt feedback throughout the learning process, so students can adjust appropriately in a rapidly changing environment. Delayed responses leave students uncertain about how to proceed, while regularly providing e-formative feedback allows them to continually refine their understanding, especially important when navigating multiple new technologies and modalities (Gamage et al., 2020). The students echoed in the study that delayed and non-specific feedback disrupted the reciprocity element that is essential for collaborative knowledge construction through feedback (Carless, 2006; Yang & Carless, 2013). Delayed feedback also disrupted the temporal rhythm required for reciprocal elaboration of understanding. As insights from Bakhtin's dialogue theory suggest, dialogic feedback requires responsivity in a shared timeframe to open up reflective spaces for learning (Yang & Carless, 2013). Belated comments broke this real-time interplay, preventing collaborative progress in meaning-making. The asynchronous timing created a one-way transmission of feedback rather than a collaborative dialogue. Carless (2006) explains that timely, dialogic feedback enables students to actively clarify meanings, fill gaps in understanding, and iteratively refine their comprehension through reciprocal elaboration of ideas with their teacher. It permits dynamic co-construction of knowledge through ongoing exchanges. However, vague, belated comments provided limited prompts for sustaining this reciprocal feedback dialogue (Orsmond & Merry, 2013). Without specific guidance in a timely manner, students in this study lacked the substantive, personalised cues needed to meaningfully engage with feedback prompts in their Zone of Proximal Development (Molloy & Boud, 2013).

Furthermore, non-specific feedback gave limited prompts to provoke reciprocal responses from students. Constructive feedback dialogue relies on substantive comments tailored to students' needs to spark reflective discussions (To & Carless, 2016). Vague feedback without details about strengths, weaknesses, and improvement strategies provided insufficient personalised hooks for students to actively clarify

meanings and advance their understanding (Dawson et al., 2021). Generic comments lacked the nuanced details to sustain a rich reciprocal dialogue.

In essence, delayed and non-specific feedback impeded the reciprocal, real-time exchanges central to social constructivism's conception of collaborative knowledge advancement through dialogic feedback focused on students' ZPD. The findings revealed missed opportunities for this scaffolding of intersubjective understanding through substantive, timely feedback tailored to the needs of individual learners.

Moreover, students prioritised performativity cues like grades over qualitative feedback. The inclination of students to prioritise performativity cues, such as grades, over qualitative feedback is a phenomenon well-supported by educational literature. Boud (2007) warns against an assessment culture that places undue emphasis on metrics like grades, as this can inadvertently stifle the intrinsic learning value inherent in feedback. The prevalence of a product-oriented perspective, where the final grade becomes the primary focus, distorts students' receptiveness to the constructive aspects of feedback (Torrance, 2012). This phenomenon aligns with the work of Butler and Winne (1995) and Nicol and MacFarlane-Dick (2006), who distinguish between ego-oriented responses triggered by grades and task-oriented thinking stimulated by meaningful feedback.

Research has consistently shown that an overemphasis on grades can lead to a surface-level approach to learning, where the primary concern is meeting assessment criteria rather than engaging deeply with the subject matter (Rust, 2002). Students may adopt a strategic approach, aiming to achieve higher grades without necessarily internalising the feedback for long-term understanding and improvement (Carless, 2015). This tendency to focus on grades as a performance measure aligns with the broader critique of assessment practices that prioritise summative evaluation at the expense of formative feedback (Carless & Boud, 2018).

The distortion caused by a strong emphasis on grades extends beyond the immediate impact on learning outcomes. It can foster a risk-averse mindset, where students may be hesitant to engage in challenging tasks that might lead to lower grades and missing valuable opportunities for deeper learning and skill development (Gibbs & Simpson,

2005). Boud's (2007) emphasis on the potential learning value of feedback being suppressed in a grade-centric culture becomes particularly pertinent in this context.

Efforts to recalibrate students' orientation towards feedback necessitate a shift in assessment cultures towards a more formative and developmental approach (Carless, 2015). Strategies that emphasise task-oriented thinking, focusing on improvement and mastery rather than mere performance, can contribute to a more conducive environment for effective feedback utilisation (Nicol & MacFarlane-Dick, 2006). This aligns with the broader paradigm shift in education towards fostering a growth mindset and cultivating metacognitive skills to enhance the learning experience (Dweck, 2006; Hattie & Timperley, 2007)

In addition to the impact of performativity cues on students' feedback engagement, negative emotional responses further hinder their ability to effectively utilise feedback. This aspect is particularly significant within the framework of Social Constructivist theory of learning, which highlight the role of emotions in shaping cognitive processes and knowledge construction (Värlander, 2008; Ryan & Henderson, 2018). According to Carless (2006), feedback should aim to avoid triggering unproductive emotions that hinder the process of meaning-making and learning. Negative emotions, such as frustration, disappointment, or self-doubt, have been shown to impede students' cognitive engagement with feedback, limiting their capacity to reflect on and internalise the feedback provided (Rowe & Wood, 2008).

The significance of emotional responses to feedback aligns with the broader understanding of emotions as integral components of the learning process, influencing motivation, attention, and information processing (Pekrun, 2006). Negative emotions triggered by feedback can lead to avoidance behaviours or defensive reactions, where students may disengage from the feedback or reject its validity as a coping mechanism (Higgins et al., 2007; Narciss & Huth, 2004). This defensive response to negative emotions can impede the constructive cycle of feedback utilisation, where feedback informs subsequent learning activities and promotes skill development (Carless & Boud, 2018).

Moreover, research suggests that negative emotional responses to feedback can have long-lasting effects on students' self-perception and academic identity (Molloy & Boud, 2013). Persistent negative emotions associated with feedback can undermine students' confidence in their abilities and diminish their motivation to engage in future learning activities (Hattie & Timperley, 2007). This highlights the importance of addressing emotional responses to feedback as a crucial aspect of promoting effective feedback utilisation and fostering a supportive learning environment (Carless, 2006).

From a pedagogical standpoint, understanding the interplay between emotions and feedback reception is essential for designing feedback strategies that promote constructive engagement and facilitate meaningful learning experiences (Higgins et al., 2002). By considering the emotional dimensions of feedback, educators can tailor their feedback approaches to mitigate negative emotional responses and promote a more positive and conducive learning environment (Hargreaves, 2011).

In essence, from a Social Constructivist lens, e-formative feedback during ERL fell short of supporting collaborative co-construction of knowledge. By addressing issues of access, timeliness, specificity, balance, and emotional impact, e-feedback can be better leveraged as a dialogic tool to scaffold meaningful learning (Yang & Carless, 2013; Winstone et al., 2017).

7.5 TOWARDS A FRAMEWORK FOR RE-THINKING E-FEEDBACK AND STUDENT LEARNING DURING ERL AND BEYOND IN THE CONTEXT OF A DEVELOPING COUNTRY

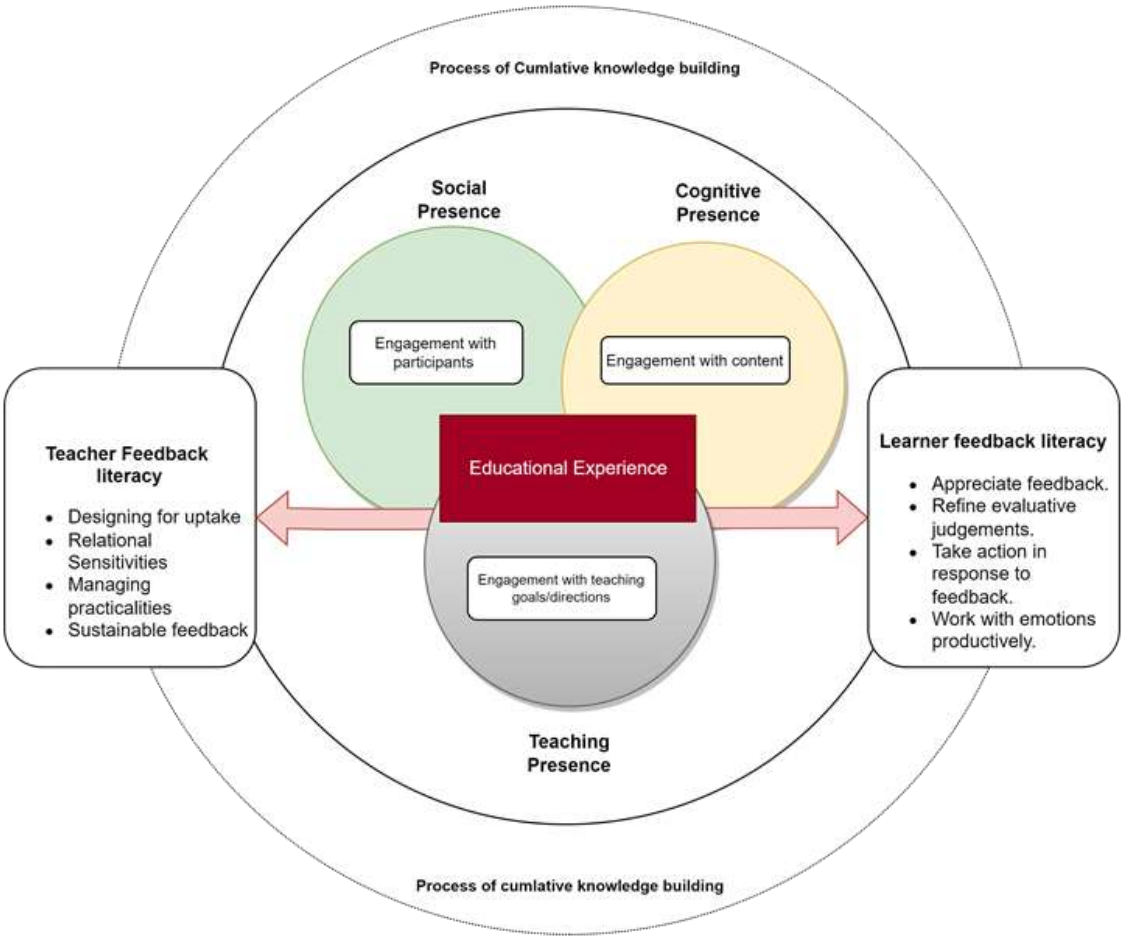


Figure 7.1 Framework for re-thinking participants' e-feedback experiences

The responses abstracted from participants' expressions of experiences of receiving e-formative feedback on e-formative assessment during ERL enabled the development of this framework. The framework offers a conceptual representation designed to support the learning process in providing e-feedback that is 'fit for purpose' (Brown, 2004; Gibbs & Simpson, 2004). This framework can readily be applied by instructors to the classroom environment, both in the remote-adapted classroom as well as face-to-face or blended learning contexts (Hodges et al., 2020). This framework positions itself on the argument that a more process-oriented approach to feedback has to come to the fore where the

focus is on making sense of feedback information and using it for enhancement purposes (Boud & Molloy, 2013; Carless & Boud, 2018). What this means is that feedback should be not simply about knowing, but about lecturers and students gaining a deep understanding as and when they participate in the continual creation of knowledge through the authentic learning processes of sharing, improving, and building on existing knowledge and ideas (Gikandi & Morrow, 2016; Evans, 2013). Hence feedback is an interplay between and among instructors' pedagogical goals and students' learning needs and this is a continuous process of cumulative knowledge-building (Tai et al., 2018; Yang & Carless, 2013). This view of feedback emphasises the student's role in generating, processing, and responding to feedback information (Nicol, 2010; Boud & Molloy, 2013). For this to be actualised, students require exposure to feedback literacy: the understandings, capacities and dispositions needed to make the most of feedback opportunities (Carless & Boud, 2018; Molloy & Boud, 2013). Students' feedback literacy involves an understanding of what feedback is and how it can be managed effectively; capacities and dispositions to make productive use of feedback; and appreciation of the roles of teachers and themselves in these processes (Tai et al., 2018; Carless & Boud, 2018). For students to develop their feedback literacy, they also need to acquire tacit knowledge: the kind of understanding which are difficult to communicate directly (Sutton, 2012). The development of tacit knowledge is needed for students to appreciate feedback messages, develop their capacities in making judgements and be primed to make adjustments to their own work during its production (Sutton, 2012; McConlogue, 2015). The acquisition of tacit knowledge of feedback processes emerges through observation, imitation, participation and dialogue (Sutton, 2012; Butler & Winne, 1995).

However, having assessment-literate students alone is not enough in facilitating holistic competency development unless they are supported by assessment-literate teachers (Smith et al., 2013; Xu & Brown, 2016). Thus, there is also a need to develop instructors' assessment literacy where they have a clear link between and among the elements of the feedback itself, the assessment activities and guidelines, and the assessment frameworks and criteria (Carless et al., 2011; Jones & Gorra, 2013). Students should be able to see the connection between what they have already achieved and their desired performance (Hattie & Timperley, 2007; Boud & Molloy, 2013). In this way, the

assessment feedback provides the relevant information needed by students to maximise their educational efforts (Evans, 2013; Yang & Carless, 2013). The idea of sustainable feedback should be foregrounded (Carless et al., 2011; Boud & Molloy, 2013).

Sustainable feedback is “dialogic processes and activities which can support and inform the student on the current task, whilst also developing the ability to self-regulate performance on future tasks (Carless et al., 2011, p. 397). A central aspect of sustainable assessment and feedback is thus the development of students’ self-regulation capabilities, which encompasses the development of reflexivity and evaluative judgements (Tai et al., 2018; Nicol & MacFarlane-Dick, 2006). This requires assessment practices that create opportunities for students to learn how to assess and practise assessing and providing feedback to themselves and their peers (Nicol et al., 2014; Boud et al., 2016). For example, producing an assignment requires students to plan, draft and re-draft whilst making adjustments based on their ongoing judgements about the quality of the work (Butler & Winne, 1995; Nicol & Macfarlane-Dick, 2006). As students review their progress on tasks, internal feedback is generated by this monitoring process (Butler & Winne, 1995).

External teacher feedback can beneficially be focused on supporting students to refine their own internal feedback, and this kind of feedback may have more impact on student learning than conventional feedback (McConlogue, 2015; Butler & Winne, 1995). Learners are more likely to change what they do only when they have formed their own judgements (Boud et al., 2016; Tai et al., 2018). Peer feedback is a key means of encouraging students’ sharing of judgements (Nicol et al., 2014; Gikandi & Morrow, 2016). Purposeful analysis of exemplars develops students’ feedback literacy by showing them rather than telling them about quality work (Hendry et al., 2016; Carless & Chan, 2017). These processes refine their ability to discriminate between works of different levels and sharpen their capacities to make academic judgements (Tai et al., 2018; Boud et al., 2016). Dialogues about exemplars should build on students’ views and perspectives so that there is genuine interaction around the complexities of judging quality (Carless & Chan, 2017; Hendry et al., 2016). Feedforward, for example, is also a strategy which can be used to increase the value of feedback to the students by focusing comments on what

the student might aim to do, or do differently, in the next assignment or assessment if they are to continue to do well or to do better (Yang & Carless, 2013; Evans, 2013).

At the center of instructors' and students' assessment feedback, literacy should be communication and interaction of teaching, cognitive and social presence designed to support the learning process, help students achieve higher-order critical thinking skills, and create a community of students and teachers in computer-mediated distance learning environments (Garrison et al., 2000; Garrison & Arbaugh, 2007; Daspit & D'Souza, 2012). The teaching presence is defined in terms of design, facilitation, and direct instruction (Anderson et al., 2001). The cognitive presence captures the extent to which the teacher or students can construct meaning and consists of the following phases: the triggering event, exploration, integration, and resolution (Garrison et al., 2001). Social presence consists of effective expression, open communication, and group cohesion (Rourke et al., 1999). Social, cognitive, and teaching presences intersect to enable meaningful dialogic feedback that enhances student learning and assessment experiences (Garrison & Arbaugh, 2007; Garrison & Cleveland-Innes, 2005). Socially, students must feel comfortable engaging in collaborative peer feedback to interpret standards and criteria (Nicol et al., 2014). Cognitively, learners integrate formative feedback to advance thinking and improve performance (Evans, 2013). The teaching presence designs and facilitates reflective feedback processes that support discourse, metacognition, and collaborative knowledge construction (Anderson et al., 2001; Garrison & Cleveland-Innes, 2005). Interactive feedback fostered by these presences cultivates deeper learning through increased engagement, motivation, and assessment literacy (Yang & Carless, 2013; Boud & Molloy, 2013). Students are empowered to make sense of expectations, benchmark against goals, apply insights, and co-construct knowledge (Tai et al., 2018; Carless & Boud, 2018).

7.6 IMPLICATIONS OF THIS PHD RESEARCH

The implications of the findings of this study are wide-ranging and involve various players, including education policy developers, university managers, and fellow students. Based on the findings, several recommendations are offered.

This research highlights important implications for education policymakers seeking to enhance assessment practices. The findings reveal gaps in feedback accessibility, timing, specificity and emotional impact that hamper learning. This suggests that policy initiatives should prioritise educator capacity building focused on constructing meaningful, motivational feedback attuned to diverse learner needs. Funding assessment literacy training programmes and designing scalable feedback mechanisms informed by learning sciences can ensure high-quality comments scaffold development for all students. National digitisation policies also need to address disparities in technological infrastructure and skills to facilitate uniform feedback access. Mainstreaming instruction in proactive feedback utilisation skills across all education levels can further equip students to leverage comments for growth.

At an institutional level, university leadership needs to promote a culture that recognises feedback's integral role in teaching and learning. This entails initiatives to build academics' abilities to provide constructive, compassionate feedback through communities of practice, mentoring structures and time allocation. Administrators also need to supply user-centric educational technologies and robust infrastructure enabling seamless feedback access. Curriculum reviews should align program outcomes, assessments and rubrics to enhance feedback coherence. Transition programmes teaching first-years to interpret standards and co-create meaningful feedback protocols also foster assessment literacy. More specifically, to improve accessibility, unified, mobile-compatible feedback delivery system across the university should be implemented. This should be coupled with comprehensive technology training for students to ensure they can easily navigate and engage with the platform. Providing offline access options can address issues of unreliable internet connectivity, which was a significant barrier for many students during ERL. It is also essential to promote the use of clear, concise language in feedback. Instructors should be encouraged to avoid complex jargon or discipline-specific terminology without proper explanation. When technical terms are necessary, they should be accompanied by brief definitions or explanations. This approach ensures that feedback is comprehensible to students at various language proficiency levels and from diverse academic backgrounds.

Timing emerged as a critical factor in the effectiveness of e-formative feedback. I propose establishing clear feedback timelines and implementing a system of automated initial feedback followed by more detailed instructor input. Staggering assignment deadlines across courses can help manage instructor workload, enabling more timely feedback. Furthermore, encouraging iterative feedback through draft submissions can allow students to benefit from guidance throughout the assignment process. Enhancing the specificity and clarity of feedback is crucial for its effectiveness. I suggest developing comprehensive feedback rubrics and utilising digital annotation tools to provide precise, contextualised comments. The use of video feedback can offer more detailed explanations, while peer feedback training can supplement instructor input and develop students' critical evaluation skills.

Balancing the valence of feedback is essential for maintaining student motivation. I recommend adopting a "feedback sandwich" approach, framing constructive feedback in growth-oriented language, and highlighting student progress. Providing exemplars of high-quality work can also guide students towards improvement while reinforcing positive aspects. Regarding the amount of feedback, finding the right balance is key. I propose prioritizing key points for improvement, implementing a tiered feedback system, and setting guidelines for optimal feedback quantity. Offering students the choice to indicate areas where they desire more detailed feedback can help tailor the amount to individual needs.

Finally, addressing the emotionality of feedback is crucial for student engagement and well-being. Training instructors in empathetic communication, personalising feedback, and implementing positive reinforcement systems can enhance the emotional impact of feedback. Additionally, offering feedback support services can help students process and act on feedback constructively. By implementing these multi-faceted solutions, institutions can significantly enhance the effectiveness of e-formative feedback during ERL and in ongoing blended learning environments. These strategies address not only the content of feedback but also its delivery, reception, and impact on student learning and well-being, providing a holistic approach to improving the feedback process in higher education.

For fellow students, this research signals the need for greater participation in shaping feedback experiences. Through dialogue with instructors around co-constructing mutually understood, specific feedback that balances critique with motivation, students can become collaborative partners rather than passive recipients in assessment processes. It is crucial for students to shift their focus beyond marks and grades, and instead engage deeply with e-formative comments. By actively applying these comments in their learning process, students can significantly improve their future performance.

Peer learning communities can foster autonomous use of comments by allowing students to clarify questions, compare work, identify improvement strategies and support each other's self-regulated learning. These communities can also provide opportunities for students to enhance their feedback literacy - the ability to read, interpret, and use feedback effectively. Developing strong feedback literacy skills can enable students to better understand and act upon the feedback they receive, maximising its impact on their learning. Ultimately, students need to develop agentic orientations, using feedback proactively to analyse needs, set goals and advocate for required guidance. This proactive approach involves not only understanding the feedback received but also seeking clarification when needed, reflecting on how to implement suggestions, and monitoring their own progress. By viewing feedback as a tool for ongoing improvement rather than just a response to a single assignment, students can cultivate a growth mindset that supports continuous learning and development.

Furthermore, students should strive to engage in meta-cognitive practices, reflecting on their learning strategies and how they align with the feedback received. This reflective practice can help students identify patterns in their work, recognise areas for improvement, and develop personalised strategies for addressing recurring challenges. By taking ownership of their learning in this way, students can maximise the benefits of e-formative feedback and develop skills that will serve them well beyond their academic careers.

The implications span across system levels, requiring coordinated efforts to actualise feedback's promise in enabling ethical, empowering assessment ecosystems. A paradigm shift is necessitated, away from transmission-focused feedback delivery towards

participatory co-creation of timely, clear and constructive comments scaffolded to students' needs.

7.7 CONTRIBUTIONS OF THIS RESEARCH

This research provides an in-depth qualitative window into student experiences of receiving e-formative feedback, specifically during the challenging pivot to online learning prompted by the COVID-19 pandemic. The rich narratives offer educators grounded insights into the distinct barriers, motivations, comprehension issues and affective dynamics students face in making sense of and applying comments to advance their skills and knowledge. While acute crisis education has stabilised, present blended environments integrating digital components confront ongoing iterations of these student feedback engagement phenomena. The phenomena depicted here regarding accessibility, emotionality, specificity and utilisation of comments remain salient and under-examined from learner perspectives. Thus, these qualitative accounts constitute crucial baseline evidence as higher education continues calibrating blended assessment designs. They offer lived learner experiences to inform ethical frameworks.

In essence, this research upholds and also complicates static cognitive perspectives on effective feedback. It reaffirms socio-material dimensions that mediate message transmission and reception while foregrounding the inextricable role of emotion in student identity and engagement. The research ultimately calls for reconceptualising feedback exchanges as humanising, negotiable spaces for nurturing reciprocal growth. These revelations productively extend conceptual conversations on enabling ethical, empowering assessment ecosystems. Notably, despite substantial prior work on effective feedback design, a few empirical studies deeply explore student perspectives, especially within emergency remote contexts prompted by the COVID-19 pandemic. This qualitative investigation helps address this gap through textured accounts depicting learner challenges, motivations, comprehension patterns and affective dynamics surrounding e-feedback.

Additionally, the study's methodology models the significant value of foregrounding students’ voices to critique and transform assessment systems that deeply shape their

learning. The privileging of student accounts as expertise to guide pedagogical improvements emphasises a humanising approach to assessment reform centred on inclusion, participation and welfare - an approach that persists as essential regardless of modalities. Thus, the methodological orientation promotes an ethical paradigm to elevate marginalised views.

Moreover, the findings catalyse important theoretical developments regarding the contemporary understanding of feedback functions. Setting student experiences against social constructivist interpretations illuminates fresh dimensions like the interplay between reason and emotion, the obstructed formation of a collaborative Zone of Proximal Development, missed scaffolding opportunities from socio-material barriers, and the need to recognise learner agency. These theoretical advancements have expectant implications for learning research. Additionally, this research extends theoretical dialogues rooted in Social Constructivist paradigms that position feedback as collaborative co-construction of knowledge between instructors and students. The findings illuminate complex forces that enabled or obstructed meaningful dialogic exchanges and scaffolded the development of understanding between participants during a challenging educational moment marked by physical distancing.

In essence, despite the passing of acute emergency remote learning triggers, this study furnishes rich, grounded student perspectives and analytical framings that retain deep relevance for continuously improving blended and online assessment systems, paradigms and theories to enable ethical, empowering learning in the digital era. It contributes baseline experiences, humanising methodologies and updated conceptual understandings carrying lasting significance. Centering student standpoints and perspectives pushes boundaries in assessment scholarship.

7.8 RELEVENCE OF THE STUDY POST-PANDEMIC

My study on first-year students' experiences of receiving e-formative feedback during ERL remains highly relevant in the post-pandemic and post-ERL era for several compelling reasons: Firstly, the rapid shift to online learning during the pandemic has accelerated the digital transformation of higher education. Many institutions have

recognised the benefits of incorporating online and blended learning approaches into their regular curricula. As a result, the insights gained from my study about effective e-formative feedback practices continue to be applicable in these evolving educational models (Guangul et al., 2020). The challenges and solutions identified in my research provide valuable guidance for optimising feedback processes in digital learning environments, which are likely to remain a significant component of higher education.

Secondly, the pandemic has highlighted and exacerbated existing inequalities in education, particularly concerning digital access and literacy. My study's findings on accessibility challenges and proposed solutions remain crucial in addressing these ongoing issues, ensuring that e-formative feedback is equitable and effective for all students, regardless of their technological resources or digital skills (Hodges et al., 2020). Thirdly, the experience of ERL has prompted a broader re-evaluation of assessment and feedback practices in higher education. My research contributes to this ongoing dialogue, offering evidence-based insights into how feedback can be designed to be more student-centred, timely, and impactful. These principles are universally applicable, transcending the specific context of ERL and informing best practices in feedback delivery across various educational settings (Carless & Boud, 2018).

Furthermore, the increased familiarity with educational technology among both students and instructors, catalysed by the pandemic, has created new opportunities for innovative feedback approaches. My study's exploration of various feedback modalities and their effectiveness provides a foundation for further development and refinement of these practices in the post-pandemic educational landscape (Winstone & Carless, 2020). Additionally, the psychological impact of the pandemic on students, including increased stress and anxiety, has heightened awareness of the importance of emotionally supportive feedback. My research's findings on the emotional aspects of feedback reception remain relevant in addressing students' ongoing mental health and well-being concerns in higher education (Pitt & Norton, 2017).

Lastly, the global nature of the pandemic has fostered greater international collaboration and knowledge sharing in education. My study, situated in the South African context, contributes to this global dialogue, offering insights that can be adapted and applied in

diverse educational settings worldwide. This cross-cultural relevance ensures the continued significance of my research in shaping global educational practices (Mishra et al., 2020). So, while my study was conducted during the unique circumstances of ERL, its findings and recommendations have enduring relevance. The insights gained continue to inform and shape educational practices, contributing to the ongoing evolution of effective, equitable, and student-centred approaches to feedback in higher education, regardless of the mode of delivery.

7.9 LIMITATIONS OF THIS PHD STUDENT RESEARCH

For the proper interpretation of the findings of this research thesis, some limitations of the research should be taken into account. Firstly, a limited number of participants (thirty-six participants) were used in this research. However, since the concern in this research was to not generalise but rather to have an in-depth understanding of first-year students' experiences of receiving e-formative feedback during Emergency Remote Learning (ERL) in the population sample, the participants were drawn from the different academic levels of their studies, and the data reflected the e-formative feedback experiences of all the different stages of their learning.

Secondly, this thesis did not explore the perspectives of instructors which would have enabled pairing of student accounts with instructor's accounts, in order to study the differences in the ways that instructors and students view and interpret e-feedback experiences during ERL. However, that was not the concern in this research, as it sought to give voice to students whose voices are usually unheard in e-assessment and learning, particularly in the South African context. Also, student learning, as described in this thesis, only reflects the learning of a particular group of students who are studying in a particular BEd course (Becoming a Teacher) in a specific context, related to one South African university. Other ways of learning may emerge with different groups of students in different contexts.

7.10 DIRECTIONS FOR FUTURE RESEARCH

The extent of the findings of this study has made me realise that many avenues have been opened for future research. This study will thus serve as a stepping stone for future studies:

This research explored the experiences of first-year university students with e-formative feedback on assessments during Emergency Remote Learning. As the study involved students from one specific course at one South African institution, further research could investigate whether similar themes emerge among different student cohorts in diverse learning contexts. Expanding the sample to include various disciplines, institutions, and demographic profiles would illuminate broader patterns and distinctions in the student experience of e-formative feedback.

Longitudinal studies tracking students' evolving perspectives on e-feedback over time would also offer useful insights. As students' progress through higher levels of study, how do their feedback literacy skills develop? How do their emotional reactions and utilisation strategies change as they become more experienced academic students? Tracing their developmental trajectory can inform scaffolding mechanisms to support continual feedback engagement.

Additionally, incorporating instructor experiences and viewpoints alongside students' voices can facilitate a more holistic understanding of e-feedback dynamics. Comparing instructor and student interpretations of the same feedback interactions could reveal disconnects contributing to dissatisfaction. Exploring instructors' decision-making processes regarding e-feedback design would also illuminate the reasoning behind choices that shape student reactions.

Moreover, research into innovations like adaptive feedback systems, personalised feedback at scale, audio/video feedback modalities and peer feedback networks could uncover technology-enhanced solutions tailored to contemporary student preferences. Studies evaluating the effectiveness of these digital feedback models in improving accessibility, specificity, timing and emotional impact would indicate high-potential areas for solution-oriented designs.

Ultimately further research needs to expand the diversity of participant samples and learning contexts examined. It should also adopt longitudinal lenses, incorporate instructor perspectives, and explore technology-based feedback innovations. Such investigations can build upon this study's groundwork to advance equitable, empowering assessment practices that actualise the learning potential of e-formative feedback across institutional types, disciplines, demographic groups and technological platforms.

7.11 MY THREE-YEAR PHD RESEARCH JOURNEY: REFLECTIONS ON LEARNING

Reflecting on the process of choosing my thesis title, it was a journey marked by careful consideration, evolving insights, and the delicate balancing act of aligning my interests and passions with academic rigour and contribution. The multitude of complexities inherent in this decision-making process ultimately added significant depth and nuance to my overall research experience. I found that choosing an appropriate, focused title was far from straightforward, and involved navigating several dimensions of complexity. Firstly, I needed to take the time to deeply reflect on my curiosities, motivations and areas of expertise that sparked my research enquiry. However, these personal interests then needed to be weighed against a rigorous review of the literature to identify meaningful gaps where my research could make a novel contribution. Reconciling my intrinsic passions with the objective academic landscape was an iterative process of exploration.

Additionally, as my understanding of the field developed, so too did the focus of my research questions and goals. This meant my thesis title needed to evolve accordingly, to accurately signal the nuances in my study's purpose and scope. The title changed numerous times as new insights emerged and my knowledge expanded. Remaining flexible to refine the wording and framing of my title as the research took shape was crucial. Making these calculated decisions around my title involved synthesising multiple viewpoints and considerations. I had to balance feedback from my supervisor, input from peers, and my developing conceptualisation of the research. Navigating these elements in tension was intellectually stimulating but demanding. The title acted as the lynchpin tying together the various complex threads of my inquiry journey.

In navigating the multi-layered complexities of choosing my title, I developed critical research skills around focus, judgement and conveying my unique contribution. The title provided a compass for the conceptual direction and significance of the study. Its evolution reflected my progress as a researcher - from building knowledge to developing my authorial voice. The enriching process of crafting my title thus set the stage for the intellectually rewarding expedition of my PhD research.

One of the initial challenges I encountered was reconciling my interests and areas of expertise with the existing gaps and opportunities in the literature. The motivation to engage with and explore a particular topic or research question, as emphasised by scholars like Conle (2000) and Afful (2008), played a pivotal role in steering the focus of my enquiry. I found that my intrinsic motivation to pursue a research direction often originated from my pre-existing passions, curiosities and experiences. This initial spark and engagement with a topic stemmed from fruitful discussions and mentorship from an influential undergraduate teacher. This aligns with perspectives in the literature that the choice of a PhD research topic often begins with personal fascination, engagement and curiosity within one's disciplinary field (Greenbank & Penketh, 2009; Dinham & Scott, 1999).

However, I soon realised that solely relying on internal motivations was insufficient without also identifying meaningful gaps in the external research landscape. A key challenge was taking my initial personal research interests and then diving deeply into the literature to find innovative ways my study could make novel contributions. Reconciling my expertise with gaps in knowledge involved investigating where my passions aligned with opportunities to extend existing theories and findings. This required embracing inherent tensions between my intrinsic curiosities and the objective academic terrain. Through this reconciliation process, I learnt to leverage both internal drives and external academic realities in sharpening the focus of my doctoral study. My undergraduate mentorship experiences provided the initial spark of curiosity while engaging with the literature guided how I could uniquely build on and advance that scholarly foundation. Drawing from both internal and external sources was crucial in orienting my research focus.

As I delved deeper into reviewing the literature within my field, new complexities arose in the form of identifying meaningful lacunae or gaps in the existing scholarly landscape. I noticed certain research questions and contexts seemed under-explored, particularly within African/non-Western settings relevant to my own work. Becoming aware of these gaps in existing theories and findings added a layer of complexity to my research planning. On the one hand, these underexplored areas represented exciting opportunities to make original contributions by venturing into uncharted academic territories. However, embarking on truly novel research also posed challenges around feasibility within the inherent constraints of time, funding, access to populations/data, and other pragmatic limitations PhD students face.

I soon realised I needed to strike a delicate balance between exploring trailblasing directions to address scholarly gaps versus ensuring my study remained realistic in scope and doable within my resource constraints. Guidance books on postgraduate research emphasise carefully weighing innovative contributions against pragmatic limitations around scale and access when designing doctoral projects. For my research, I aimed to find this sweet spot by exploring gaps relevant to my context while limiting the scope to identifiable student populations and accessible data sources. The insights I could generate by asking new research questions and investigating under-examined settings were invaluable for making unique contributions. However, I also had to be strategic in constructing boundary parameters for data collection and analysis that were achievable as a solo PhD candidate within a set timeframe.

Navigating these tensions and finding the right equilibrium between originality and viability was a delicate balancing act requiring creativity and flexibility. The complexity of identifying exciting yet pragmatic research directions significantly informed the focus and contours of my doctoral study.

Another layer of complexity emerged as I worked to refine and focus my chosen research topic. I initially grappled with the challenge of narrowing the scope of my enquiry to avoid it becoming too unwieldy or diffuse. The delicate task of ensuring I chose a focus that was neither too broad nor too narrow became readily apparent. This process involved not only deep personal reflections on my interests but also extensive consultations with my PhD

supervisor, colleagues and other academics. I had many fruitful discussions within my scholarly community about how to hone my research questions to an appropriate scope. I also thoroughly examined related dissertations and research articles to analyse how others framed and focused their projects.

The literature consistently echoed the importance of reading broadly across one's field to inform the focus and boundaries of a study. This guidance proved invaluable as I shaped the trajectory of my own project. However, I still found myself changing my proposed thesis title multiple times as my knowledge developed. The frustration of revising my framing was part of the expected evolution as I continually refined my enquiry. In total, my title progressed through about three distinct iterations, each change representing my improved conceptual understanding of the research. As Brabazon, Reardon and Murray (2020) discuss, this process of focus refinement is common in qualitative studies which benefit from flexibility and emergence rather than rigid pre-structuring. Like Dinham and Scott (1999) and Rockinson-Szapkiw and Spaulding (2014) found in their doctoral research, embracing title changes was crucial for signalling my progress in academic insight.

The complexity of focusing on my chosen topic was challenging but essential for determining meaningful boundaries for the scope. Through an iterative process of reading, writing, feedback and refinement, I was able to distil my study to an appropriate breadth and level of specificity. The resulting focused title became a touchstone for conveying my doctoral contribution.

The evolution of my thesis title also added an intriguing dimension to the complexities of this journey. From the initial proposal to the confirmation of candidature and finally to the post-confirmation and thesis presentation stages, the title underwent several transformations. Examples of titles included “Exploring Student Sentiments towards Digital Feedback", "Examining Technological Formative Feedback: A First-Year Student Perspective" and "The Examination of How E-Formative Feedback is received by First-Year Students". Each change was a conscious decision, reflecting a deeper understanding of the research focus and objectives. This resonates with the advice found

in the literature – that the title is not a static element but an evolving aspect that should be refined as the research progresses (Morton & Thornley, 2001; Noy, 2003).

In retrospect, the complexities in choosing the title were not obstacles but rather opportunities for growth and refinement. The process demanded flexibility, adaptability, and a willingness to embrace new insights. It highlighted the delicate balance between having a plan and allowing the research to unfold organically. Ultimately, the thought put into framing the title served as a crucial element, influencing the reception of my thesis and signalling the depth and focus of the research to potential readers.

As I moved to the literature review, I did not recognise the importance of deeply engaging with relevant literature to situate my study and demonstrate authorial voice. I found myself writing and reading at a superficial level and foregrounding the author as opposed to the argument. After many supervision meetings and reading of published PhD studies, I recognised the importance of deeply engaging with literature on e-formative feedback in order to establish the field, identify research gaps, and justify my study's contribution. I explored background sources, closely related studies, and directly relevant literature. Whenever I felt overwhelmed by complex literature, I used to take notes and write while reading to help me process information and avoid feeling overwhelmed. Situating my study within the field involved summarising, synthesising, analysing, and authorising sources or using linguistic tools like hedging to demonstrate criticality. Technical aspects like citation formats did matter, so I needed to ensure uniformity and closely proofread. I submitted many drafts to my supervisor from labelling it final draft to drafts 1,2,3,4 and, 5 as my literature review in many parts did not seem cyclical, informing my research questions which then could have guided further reading. One of the major highlights was the comment from my supervisor that I did "*not thoroughly review e-formative feedback literature"* and this prevented me from carving out an original niche for my research or substantiating its warrant through a critical lens - core goals for a doctoral researcher like me. After many drafts of the literature review, I realised that engagement with the literature, as Wellington et al. (2006) assert, is more of a cyclical process rather than a linear process that has a beginning and an end. To build an argument and convey one's

stance, four distinct levels of engagement can be employed: summarise, synthesise, analyse and authorise (cf. Trafford & Leshem, 2008).

In investigating how first-year students experience and respond to e-formative feedback, extensive face-to-face data gathering which brought unforeseen interpersonal challenges was involved. Conducting one-on-one interviews required cultivating trust and reading emotional cues to foster rich descriptions from students about their feedback perspectives. My first interviews felt awkward as students seemed hesitant opening up. I realised I needed to hone my active listening and empathy skills to create comfortable spaces for candid sharing.

Additionally, managing group dynamics and equitable participation in focus group discussions proved tricky. More vocal students sometimes dominated exchanges while quieter ones held back. I learnt to gently draw out reticent voices by asking easier ice-breaker questions before heavier topics. Probing divergent opinions respectfully without letting singular views dominate was a delicate balancing act requiring reflexivity and compassion.

The face-to-face sessions generated a mountain of narrative data that was intellectually exciting but demanded exhaustive qualitative coding and analysis. Tracking themes across transcripts was chaotic, as earlier patterns shifted with new angles emerging from each discussion. I persisted through self-doubt, anchored by the privilege of gaining deep access to student motivations and struggles. My interpretive lens constantly evolved through post-interview reflection.

This intensive emotional labour taught me the art of listening and illuminated my unconscious biases that could skew student depictions. The richness and honesty in interviews reaffirmed the power of in-person interactions to spark vulnerability and self-disclosure, but only with non-judgemental prompting. My growing ability to connect authentically with participants and represent their perspectives fairly developed crucial ethical research skills. Analysing volumes of transcripts built analytical stamina and an eye for nuanced patterns.

While face-to-face data gathering and analysis was demanding, this reflective account reaffirms its superiority for deeply exploring subjective learning phenomena. My upgraded communication, critical thinking and compassion skills will enable more humanistic research approaches elevating student voices and lived realities – a moral obligation as I disseminate this study's findings to improve feedback participation. The insights gained into managing interpersonal and interpretive dynamics will guide efforts to advocate qualitative inclusion in assessment scholarship.

Overall, my doctoral journey was a rollercoaster of intellectual stimulation, emotional turmoil, and physical fatigue. The thesis process demanded total immersion - embarking into the unknown, wrestling with self-doubt, and persevering through hurdles to reach that final moment of accomplishment. Narrating my experience has been cathartic, helping me process the highs and lows of PhD life. Beyond exciting learning and discovery, academia contains many uncertainties that test resilience. My account affirms the need for tenacity to weather the storms inherent to the doctoral climb. While rewarding, obtaining a PhD requires grit to push past the inevitable frustrations. My thesis experience was a transformative crucible, forging a stronger scholar and cultivating wisdom to face future trials. Though not easy, the struggle forged an enriched worldview to guide my ongoing journey of research and lifelong learning.

7.12 CONCLUDING REMARKS

This PhD research explored a crucial but understudied area - the lived experiences of first-year university students receiving e-formative feedback on assessments during emergency remote learning. Adopting an interpretivist qualitative approach, the findings reveal the complex interplay of factors impacting students' feedback comprehension, emotional responses and utilisation strategies.

While mirroring some existing literature on embedment challenges, this thesis breaks new ground by providing textured narratives illuminating student perspectives within the uncharted context of emergency remote pedagogy in South African higher education. The themes depicting motivations, barriers and responses to feedback showcase the need to re-evaluate conventional assessment assumptions.

Fundamentally, the issues underscored in my findings orient us to reimagine feedback practices, shifting focus from transmission to co-constructed meaning-making. This aligns directly with my proposed conceptual framework, which emphasises tailoring feedback to individual student needs and context. My research revealed that timely, personalised, and compassionate comments acknowledging student agency can foster collaborative knowledge advancement, a key component of the framework. The technological and pedagogical scaffolds enabling access, dialogue, and motivation around high-quality feedback, as highlighted in my findings, are imperative and form core elements of the proposed framework. Conceptually, the experiences documented in my study warrant deeper interrogation of how sociocultural dynamics mediate cognition, recognising reason and emotion as intertwined in student identity construction during assessment. This insight addresses a significant gap in the literature, which often overlooked the emotional and sociocultural aspects of e-formative feedback. My framework's emphasis on emotionality and accessibility in feedback design directly responds to this gap. Furthermore, the transformative paradigms suggested by my findings may reveal power dimensions undergirding feedback marginalisation, an aspect previously underexplored in e-formative feedback literature. By incorporating these elements into a comprehensive framework for designing feedback “fit for purpose”, my research closes the gap between theoretical understanding and practical application of e-formative feedback in emergency remote learning contexts and in ongoing blended learning environments, providing a more holistic and student-centred approach to feedback design and delivery.

Ultimately, this thesis sounds like a clarion call to further uplift student voices in reframing ethical feedback ecosystems that centre equity, empowerment and humanisation of assessment in higher education. The insights here can galvanise further explorations of feedback experiences encompassing diverse learner perspectives to make education more collectively responsive and impactful.

REFERENCE LIST

Abdool Karim, S. S. (2020). *The South African response to the pandemic.* New England Journal of Medicine, 382(24), e95.

Abrahamson, D. (2010). *Embodied spatial articulation: A gesture perspective on student negotiation between kinesthetic schemas and epistemic forms in learning mathematics.* In S. L. Christenson, A. L. Reschly, & C. Wylie (Eds.), Handbook of research on student engagement (p. 257–278). Springer Science + Business Media. https://doi.org/10.1007/978-1-4614-2018-7_13.

Achem, B., & Adegun, A. (2021). *Socio-Economic Effects of COVID-19 on Education in Nigeria and Policy Measures So Far.* Research in Globalization, 3, 100038.

Adams, P. (2006). *Exploring social constructivism: Theories and practicalities.* Education 3-13, 34(3), 243-257.

Aduana, C. G., & Good, A. J. (2021). *Using BERT and Chi-Square for Automated Essay Feedback.* The Journal of Writing Analytics, 5.

Afful, J. B. A. (2008). *A rhetorical analysis of the Ghanaian written petitions and petitions in the form of letters to government officials.* Rhetoric Society Quarterly, 38(2), 151-175.

Aguilera-Hermida, A. P. (2020). *College students' use and acceptance of emergency online learning due to COVID-19.* International Journal of Educational Research Open, 1, 100011.

Ajit, R., Malik, G., & Pather, S. (2022). *Student perceptions and preferences regarding feedback modalities in higher education.* Australian Journal of Educational Technology, 38(1), 123-138.

Ajjawi, R., & Boud, D. (2017). *Researching feedback dialogue: an interactional analysis approach.* Assessment & Evaluation in Higher Education, 42(2), 252-265.

Alpert, J. B., Young, M. J., Lala, S. V. & McGuinness, G. (2021). *Medical Student Engagement and Educational Value of a Remote Clinical Radiology Learning Environment: Creation of Virtual Read-Out Sessions in Response to the COVID-19 Pandemic*. Academic Radiology. Volume 28 (1), Pages 112-118.

Alqurshi, A. (2020). *Investigating the impact of COVID-19 lockdown on pharmaceutical education in Saudi Arabia - A call for a remote teaching contingency strategy*. Pages: 1075-1083. doi: 10.1016/j.jsps.2020.07.008. – PubMed.

Anderson, C. (2010). *Presenting and evaluating qualitative research.* American journal of pharmaceutical education, 74(8).

Anderson, T., Rourke, L., Garrison, D. R., & Archer, W. (2001). *Assessing teaching presence in a computer conferencing context.* Journal of Asynchronous Learning Networks, 5(2), 1-17.

Angen, M. J. (2000*). Evaluating interpretive inquiry: Reviewing the validity debate and opening the dialogue.* Qualitative Health Research, 10(3), 378-395.

Anseel, F., Lievens, F., & Schollaert, E. (2015). *Reflection as a strategy to enhance task performance after feedback.* Organizational Behavior and Human Decision Processes, 126, 113-121.

Asikainen, H., Parpala, A., Virtanen, V., & Lindblom-Ylänne, S. (2013). *The relationship between student learning process, study success and the nature of assessment: A qualitative study.* Studies in Educational Evaluation, 39(4), 211-217.

Atkinson, R. C., & Shiffrin, R. M. (1968). *Human memory: A proposed system and its control processes.* In K. W. Spence & J. T. Spence (Eds.), The psychology of learning and motivation (Vol. 2, pp. 89-195). Academic Press.

Attali, Y., & van der Kleij, F. (2017). *Effects of feedback elaboration and feedback timing during computer-based practice in mathematics problem solving.* Computers & Education, 110, 154-169.

Bandura, A. (1977). *Self-efficacy: Toward a unifying theory of behavioral change.* Psychological Review, 84(2), 191-215.

Barnard, L., Lan, W. Y., To, Y. M., Paton, V. O., & Lai, S. L. (2009). *Measuring self-regulation in online and blended learning environments.* The internet and higher education, 12(1), 1-6.

Barrett, B. (2018). *Evaluating for public value: Broader lessons for student voice work.* FORTHcoming.

Bastola, M., & Hu, C. Q. (2021). *The effects of teacher written corrective feedback: A case study.* IAFOR Journal of Education, 9(3), 69-84.

Bawa, P. (2020). *Learning in the age of SARS-COV-2: A quantitative study of learners' performance in the age of emergency remote teaching.* Computers and Education. DOI:10.1016/j.caeo.2020.100016

Bearman, M., Dawson, P., Bennett, S., Hall, M., Molloy, E., Boud, D., & Joughin, G. (2021*). How university teachers design assessments: a cross-disciplinary study.* Higher Education, 83, 57-74.

Berger, P. L., & Luckmann, T. (1966). *The social construction of reality: A treatise in the sociology of knowledge.* Anchor Books.

Biggs, J. (2003). *Teaching for quality learning at university* (2nd ed.). Open University Press.

Biwer, F., Wiradhany, W., Egbrink, M. O., Hospers, H., Wasenitz, S., Jansen, W. & de Bruin, A. (2021). *Changes and Adaptations: How University Students Self-Regulate Their Online Learning During the COVID-19 Pandemic.* doi: 10.3389/fpsyg.2021.642593 [PubMed].

Black, P., & Wiliam, D. (2018). *Classroom assessment and pedagogy.* Assessment in Education: Principles, Policy & Practice, 25(6), 551-575.

Bloxham, S., & Boyd, P. (2007). *Developing effective assessment in higher education: A practical guide.* McGraw-Hill Education.

Booyse, C., & du Plessis, E. (2020). *#Feesmustfall and youth inclusivity: Protesting voices in South Africa.* In The Struggle Over Ideology (pp. 59-88). SUN Press.

Boud, D. (2007). *Reframing assessment as if learning were important.* In D. Boud & N. Falchikov (Eds.), Rethinking assessment in higher education: Learning for the longer term (pp. 14-25). Routledge.

Boud, D., & Molloy, E. (2013). *Rethinking models of feedback for learning: The challenge of design.* Assessment & Evaluation in Higher Education, 38(6), 698-712.

Boud, D., Lawson, R., & Thompson, D. G. (2016). *Does student engagement in self-assessment calibrate their judgement over time?* Assessment & Evaluation in Higher Education, 40(5), 676-694.

Boudrias, J. S., Bernaud, J. L., & Plunier, P. (2014). *Candidates' integration of individual psychological assessment feedback. Journal of Managerial Psychology.*

Brabazon, T., Reardon, D., & Murray, G. C. (2020). *How Universities Work: Understanding Misconceptions About Higher Education as a Precursor to Reform.* Trajectories of Education in the Post Pandemic World, 51-71.

Braun, V., & Clarke, V. (2006). *Using thematic analysis in psychology.* Qualitative research in psychology, 3(2), 77-101.

Braun, V., Clarke, V., Hayfield, N., & Terry, G. (2019). *Thematic analysis.* In P. Liamputtong (Ed.), Handbook of research methods in health social sciences (pp. 843-860). Springer.

Braun, V., & Clarke, V. (2021). *Can I use TA? Should I use TA? Should I not use TA? Comparing reflexive thematic analysis and other pattern‐based qualitative analytic approaches.* Counselling and Psychotherapy Research, 21(1), 37-47.

Braun, V., & Clarke, V. (2022). *Conceptual and design thinking for thematic analysis.* Qualitative Psychology, 9(1), 3-26.

Brearley, F. Q., & Cullen, W. R. (2012). *Providing students with formative audio feedback.* Bioscience Education.

Brookhart, S. M. (2008). *How to give effective feedback to your students:* Boston: Alexandria Press.

Brookhart, S. M. (2017). *How to give effective feedback to your students, 2nd edition.* ASCD.

Brown, G. T. (2004). *Teachers' conceptions of assessment: Implications for policy and professional development.* Assessment in Education: Principles, Policy & Practice, 11(3), 301-318.

Brown, C. (2008). *Constructivism.* In 21st Century Education: A Reference Handbook (pp. 57-64). SAGE Publications, Inc.

Brown, S. (2019). *Assessment, learning and teaching in higher education.* Routledge.

Brown, N., Bower, M., Skalicky, J., Wood, L., Donovan, D., Loch, B., & Jorre de St Jorre, T. (2020). *A pedagogical framework for conceptualizing effective feedback literacy.* Assessment & Evaluation in Higher Education, 45(7), 1001-1016.

Bruner, J. S. (1961). *The act of discovery.* Harvard Educational Review, 31(1), 21-32.

Bruner, J. S. (1977). *The process of education.* Harvard University Press.

Bruner, J. S. (1990). *Acts of meaning.* Harvard University Press.

Bryman, A. and Bell, E. (2007). *Business Research Methods, 2nd ed.,* Oxford: Oxford University Press.

Burke, D. (2009). *Strategies for using feedback students bring to higher education.* Assessment & Evaluation in Higher Education, 34(1), 41-50.

Burke, K., & Patching, R. (2021). *Exploring students' understanding of research: An interpretive phenomenological analysis.* Teaching & Learning Inquiry, 9(2).

Butler, R. (1988). *Enhancing and undermining intrinsic motivation; the effects of task-involving and ego-involving evaluation on interest and performance.* British Journal of Educational Psychology, 58(1), 1-14.

Butler, J. (1988). *Performative acts and gender constitution: An essay in phenomenology and feminist theory.* Theatre journal, 40(4), 519-531.

Butler, D. L., & Winne, P. H. (1995). *Feedback and self-regulated learning: A theoretical synthesis.* Review of Educational Research, 65(3), 245-281.

Butucha-Kgafa, S. B. (2020). *Students' experiences in using MOOCs at an African University.* The International Review of Research in Open and Distributed Learning, 21(2), 122-137.

Carless, D. (2002). *The 'mini-viva' as a tool to enhance student engagement.* Active Learning in Higher Education, 3(2), 112-128.

Carless, D. (2007). *The suitability of task-based approaches for secondary schools: Perspectives from Hong Kong.* System, 35(4), 595-608.

Carless, D. (2006). *Differing perceptions in the feedback process.* Studies in Higher Education, 31(2), 219-233.

Carless, D. (2009). Trust, distrust and their impact on assessment reform. Assessment & Evaluation in Higher Education. 34(1), 79-89. https://doi.org/10.1080/02602930801895786

Carless, D. (2013). *Trust and its role in facilitating dialogic feedback.* In D. Boud & E. Molloy (Eds.), Feedback in higher and professional education: Understanding it and doing it well (pp. 90-103). Routledge.

Carless, D. (2015). *Excellent failures: The ultimate oxymoron?.* ELT journal, 69(3), 318-328.

Carless, D., & Boud, D. (2018). *The development of student feedback literacy: enabling uptake of feedback.* Assessment & Evaluation in Higher Education, 43(8), 1315-1325.

Carless, D., Salter, D., Yang, M., & Lam, J. (2011). *Developing sustainable feedback practices.* Studies in Higher Education, 36(4), 395-407.

Carless, D., & Chan, K. W. (2017). *Managing dialogic use of exemplars.* Assessment & Evaluation in Higher Education, 42(6), 927-941.

Castonguay, R. (2020). *COVID-19 sparks an international wave of free online courses.* University World News.

Chaiklin, S., Hassneiah, A., Issenberg, B., & Taldone, S. (2021*). Learning in the Time of COVID-19: Rapid Transition to Online Learning in Medical Education.* Medical Science Educator, 31(3), 1317-1326.

Charmaz, K. (2014). *Constructing grounded theory (2nd ed.)*. SAGE Publications.

Chen, X., & Li, Z. (2020). *Effects of achievement goals on help-seeking attitudes and behaviors: The mediating role of academic procrastination.* Journal of Experimental Education, 1-24.

Chickering, A. W., & Gamson, Z. F. (1987). *Seven principles for good practice in undergraduate education.* AAHE Bulletin, 39(7), 3-7.

Chidiebere, A. C. (2015). *Exploring Students' Experiences of Information and Communication Technology (ICT) Facilitated Feedback: A Case Study of Business Management Education*

Students at a Higher Institution in KwaZulu-Natal. Education in Social Studies (Unpublished Master's dissertation, University of KwaZulu-Natal, South Africa).

Cohen, L., Manion, L. and Morrison, K. (2007). *Research Methods in Education.* 6th Edition, London: Routledge.

Cohen, L., Manion, L. & Morrison, K. (2011). *Research Methods in Education.* (7th Ed.). London: Routledge.

Coll, C., Rochera, M. J., Mayordomo, R. M., & Naranjo, M. (2021*). Feedback for effective learning. In C. Coll & A.* Falsafi (Eds.), Zones of proximal development (pp. 125-139). Sense Publishers.

Collins, H. (2010). *Creative research: the theory and practice of research for the creative industries.* Bloomsbury Publishing.

Collins, K. M. (2010). *Advanced sampling designs in mixed research.* Advanced mixed methods research designs, 353-377.

Conle, C. (2000). *Thesis as narrative or "What is the inquiry in narrative inquiry?".* Curriculum Inquiry, 30(2), 189-214.

Corbin, J., & Strauss, A. (2015). *Basics of qualitative research: Techniques and procedures for developing grounded theory (4th ed.).* Sage Publications.

Clark, I. (2012). Formative assessment: Assessment is for self-regulated learning. *Educational Psychology Review*, 24 (2012), pp. 205-249, 10.1007/s10648-011-9191-6.

Clarke, V., & Braun, V. (2018). *Thematic analysis.* The Journal of Positive Psychology, 12(3), 297-298.

Craven, R. G., Marsh, H. W., & Debus, R. L. (1991). *Effects of internally focused feedback and attributional feedback on enhancement of academic self-concept.* Journal of Educational Psychology, 83(1), 17-27.

Creswell, J. W. (2009). *Research design: Qualitative and quantitative approaches.* London: SAGE Publications.

Creswell, J. W. (2012). Qualitative inquiry and research design: Choosing among five approaches: U.S.A: Pearson.

Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches.* Sage publications.

Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches (3rd ed.).* Sage Publications.

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications.

Cucinotta, D., & Vanelli, M. (2020). *WHO declares COVID-19 a pandemic.* Acta Biomedica: Atenei Parmensis, 91(1), 157-160.

Darling-Aduana, J., & Good, A. (2021). *Equity and formative assessment: A culturally responsive teaching Probe.* Educational Measurement: Issues and Practice, 40(3), 11-19.

Daspit, J. J., & D'Souza, D. E. (2012). *Using the community of inquiry framework to introduce wiki environments in blended-learning pedagogies: Evidence from a business capstone course.* MERLOT Journal of Online Learning and Teaching, 8(1), 21-36.

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.

Dawson, P., Henderson, M., Ryan, T., Mahoney, P., Boud, D., Phillips, M., & Molloy, E. (2021). *Technology belongs to all of us: Life-long learning for a re-distributed workforce.* In D. Boud, & P. Dawson (Eds.), Change practices in higher education: Working with future possibilities (pp. 1-17). Springer.

Dean, J. (2018). *Doing reflexivity: An introduction.* Policy Press.

Deci, E. L., & Ryan, R. M. (1985*). Intrinsic motivation and self-determination in human behavior. Plenum.*

Denzin, N.K. and Lincoln, Y.S. (2011). *The SAGE Handbook of Qualitative Research.* 4th Edition, Thousand Oaks, CA: Sage.

Denzin, N. K., & Lincoln, Y. S. (2018). *The SAGE handbook of qualitative research (5th ed.).* Sage Publications.

Department of Education. (2020). *National Protocol for Assessment Grade R-12*. Retrieved 06 April 2020, from https://www.education.gov.za/Portals/0/Documents/Policies/NatProtAssess

Department of Cooperative Governance and Traditional Affairs. (2020). *Disaster management act: Regulations to address, prevent and combat the spread of Coronavirus COVID-19: Amendment.* Government Gazette 43148.

Department of Higher Education and Training (DHET). (2020). *Policy statement on the evaluation of the 2020 academic year for universities.* Government Gazette No. 43505.

de Vaus, D. (2001). *Research design in social research*. London: SAGE.

de Vos, A. S., Delport, C. S. L., Fouché, C. B., & Strydom, H. (2005). *Research at grass roots: For the social sciences and human service professions* (3rd ed.). Van Schaik.

Dhawan, S. (2020). *Online learning: A panacea in the time of COVID-19 crisis.* Journal of Educational Technology Systems, 49(1), 5-22.

Dinham, S., & Scott, C. (1999). *The Doctorate: Talking about the Degree.* University of Western Sydney Nepean.

Dixon, S., & Williams, G. (2001). *Integrating academic staff development, professional development and organizational development principles.* In A. Feast & P. Anderson (Eds.), Effective academic staff development (pp. 110-123).

Dodds, S., & Hess, A. C. (2021). *Adapting research methodology during COVID-19: lessons for transformative service research.* Journal of Service Management, 32(2), 203-217.

Doolittle, P. E. (2014). *Complex constructivism: A theoretical model of complexity and cognition.* International Journal of Teaching and Learning in Higher Education, 26(3), 485-498.

Dweck, C. S. (2006). *Mindset: The new psychology of success.* Random House.

Dweck, C. S. (2015). *Growth*. British Journal of Educational Psychology, 85(2), 242-245.

Elsalem, L., Al-Azzam, N., Jum'ah, A. A., Obeidat, N., Sindiani, A. M. & Kheirallah, K. A. (2020). *Stress and behavioral changes with remote E-exams during the Covid-19 pandemic: A cross-sectional study among undergraduates of medical sciences.* MedPub; pp 271 -279. doi: 10.1016/j.amsu.2020.10.058.

Elsalem, L., Al-Azzam, N., Jum'ah, A. A., & Obeidat, N. (2021). *Remote E-exams during Covid-19 pandemic: A cross-sectional study of students' preferences and academic dishonesty in faculties of medical sciences.* Annals of Medicine and Surgery, 65, 102100

Elwood, J., & Bode, J. (2014). *Student preferences vis-à-vis teacher feedback in university EFL writing classes in Japan.* System, 42(1), 213-223.

Engelsen, K. S., & Smith, K. (2010). *Assessment Literacy.* In C. Wyatt-Smith, V. Klenowski, & P. Colbert (Eds.), The Enabling Power of Assessment: Designing Assessment for Quality Learning (p. 195–210). Springer Netherlands.

Erlwanger, S. H. (1973). *Benny's conception of rules and answers in IPI mathematics.* Journal of Children's Mathematical Behavior, 1(2), 7-26.

Evans, C. (2013). *Making sense of assessment feedback in higher education.* Review of educational research, 83(1), 70-120.

Ferguson, P. (2011). *Student perceptions of quality feedback in teacher education.* Assessment & Evaluation in Higher Education, 36(1), 51-62.

Ferris, D., & Roberts, B. (2001). *Error feedback in L2 writing classes: How explicit does it need to be?.* Journal of second language writing, 10(3), 161-184.

Finlay, K. A., Tinnion, M. B., & Simpson, F. (2022). *Digital pipelines and scaffolding: higher education virtual learning environments and student engagement during and beyond the COVID-19 pandemic.* Critical Studies in Education, 1-18.

Forsythe, A., & Johnson, S. (2017). *Thanks, but no-thanks for the feedback.* Assessment & Evaluation in Higher Education, 42(6), 850-859.

Flick, U. (2018). *An introduction to qualitative research* (6th ed.). SAGE Publications.

Fluck, A. (2019). *Feedback on feedback practice for teacher educators.* Australian Journal of Teacher Education, 44(1), 12.

Forsythe, A., & Johnson, S. (2017). *Thanks, but no-thanks for the feedback.* Assessment & Evaluation in Higher Education, 42(6), 850-859.

Frawley, W. (1997). *Vygotsky and cognitive science: Language and the unification of the social and computational mind.* Harvard University Press.

Fyfe, E. R., Rittle-Johnson, B., & DeCaro, M. S. (2012). *The effects of feedback during exploratory mathematics problem solving: Prior knowledge matters.* Journal of Educational Psychology, 104(4), 1094-1108.

Gaertner, H. (2014). *Effects of student feedback as a method of self-evaluating the quality of teaching.* Studies in Educational Evaluation, 42, 91-99.

Gamage, K. A. A., Silva, E. K. D., & Gunawardhana, N. (2020). *Online delivery and distance learning in COVID 19 struck Sri Lankan universities.* Innovative Education, 2(3), 2241-4552.

Gardner, J., Harlen, W., Hayward, L., & Stobart, G. (2010). *Developing teacher assessment: Maidenhead.* Open University Press.

Garrison, D. R., & Arbaugh, J. B. (2007). *Researching the community of inquiry framework: Review, issues, and future directions.* The Internet and Higher Education, 10(3), 157-172.

Garrison, D. R., & Cleveland-Innes, M. (2005). *Facilitating cognitive presence in online learning: Interaction is not enough.* The American Journal of Distance Education, 19(3), 133-148.

Garrison, D. R., Anderson, T., & Archer, W. (2000). *Critical inquiry in a text-based environment: Computer conferencing in higher education.* The Internet and Higher Education, 2(2-3), 87-105.

Garrison, D. R., Anderson, T., & Archer, W. (2001). *Critical thinking, cognitive presence, and computer conferencing in distance education.* American Journal of Distance Education, 15(1), 7-23.

Gartmeier, M., Grubich, J., Puncken, O., Bauer, J., & Heid, H. (2019). *Positive emotions: the physiological feedback of motivation activation during oral exam preparation.* Frontline Learning Research, 7(5), 13-28.

Gentrup, S., Lorenz, G., Kristen, C., & Kogan, I. (2020). *Self-fulfilling prophecies in the classroom: Teacher expectations, teacher feedback and student achievement.* Learning and Instruction, 66, 101296.

Gibbs, G., & Simpson, C. (2004). *Conditions under which assessment supports students' learning.* Learning and teaching in higher education, 1(1), 3-31.

Gibson, S. (2020). *Zoom fatigue? How an overdose of video calls drains the brain.* The Conversation.

Gichuru, L. M. (2017). *Challenges Faced by Postgraduate Students in Conducting Quantitative Research in Public Universities in Kenya* (Doctoral dissertation).

Gielen, S., Peeters, E., Dochy, F., Onghena, P., & Struyven, K. (2010). *Improving the effectiveness of peer feedback for learning.* Learning and Instruction, 20(4), 304-315.

Gielen, S., & DeWever, B. (2015). *Structuring peer assessment: Comparing the impact of the degree of structure on peer feedback content.* Computers in Human Behavior, 52, 315–325.

Gikandi, J. W., Morrow, D., & Davis, N. E. (2011). *Online formative assessment in higher education: A review of the literature.* Computers & Education, 57(4), 2333-2351.

Gikandi, J. W., & Morrow, D. (2016). *Designing and implementing peer formative feedback within online learning environments.* Technology, Pedagogy and Education, 25(2), 153-170.

Gillette-Swan, M. (2017). *Feedback landscapes: Mapping the context of feedback during online learning* [Doctoral dissertation, Purdue University].

Goldstein, L. M. (2004). *Questions and answers about teacher written commentary and student revision: Teachers and students working together.* Journal of second language writing, 13(1), 63-80.

Goodman, J. (2010). *Student authority: Antidote to alienation.* Theory and Research in Education, 8(3), 227-247.

Gorski, P. C. (2009). *Insisting on digital equity: Reframing the dominant discourse on multicultural education and technology.* Urban Education, 44(3), 348-364.

Gouw, A. M. S. (2008). *Developing appropriate skills for tertiary students.* Binus University.

Greeff, M. (2011). *Information collection: Interviewing.* De Vos, AS. Strydom, H. Fouche. CB & Delport, CS L.(2011) Research at grass roots: for the social sciences and human service professions.

Greenbank, P., & Penketh, C. (2009). *Student autonomy and choice in the McDonaldization of the modern university: An alternative critique.* The International Journal of Sociology and Social Policy, 29(7/8), 411-425.

Guangul, F. M., Suhail, A. H., Khalit, M. I., & Khidhir, B. A. (2020). *Challenges of remote assessment in higher education in the context of COVID-19: A case study of Middle East College.* Educational Assessment, Evaluation and Accountability, 32(4), 519-535.

Guba, E. G., & Lincoln, Y. S. (1994). *Competing paradigms in qualitative research.* In N. K. Denzin & Y. S. Lincoln (Eds.), Handbook of qualitative research (pp. 105-117). Sage Publications.

Guskey, T. R. (2019). *Formative classroom assessment and Benjamin S. Bloom: Theory, research, and implications.* CSSE L, 28(2), 51-62.

Hamamorad, S. (2016). *The Use of Formative Feedback and Representations in Promoting Understanding in Geoscience.* NARST 2016 Annual Meeting.

Hansen, J. D. (2020). *Educating Online During Disasters: Faculty Zoom Fatigue Explained.* American Journal of Distance Education, 1-3.

Hargreaves, E. (2011). *Teachers' feedback to pupils: Missed opportunities.* In M. Mamlok-Naaman, K. Boers-van Oosterum, R. Fortus, & A. Yarden (Eds.), Analysis of probing the performance of teaching (95-120). Nova Science.

Harland, T. (2003). *Vygotsky's Zone of Proximal Development and problem-based learning: Linking a theoretical concept with practice through action research.* Teaching in Higher Education, 8(2), 263-272.

Harris, L. R., Brown, G. T. L. & Harnett, J. A. (2014). *Understanding classroom feedback practices: A study of New Zealand student experiences, perceptions, and emotional responses*. Springer Science+Business Media: New York. DOI 10.1007/s11092-013-9187-5.

Hartshorn, K. J., & McMurry, B. L. (2020). *The effects of the COVID-19 pandemic on ESL learners and TESOL practitioners in the United States.* International Journal of TESOL Studies, 2(2), 140-157.

Hattie, J., & Gan, M. (2011). *Instruction based on feedback.* In Mayer, R. E., & Alexander, P. A. (Eds.), Handbook of research on learning and instruction, 249-271.

Hattie, J. & Timperley, H. (2007). The power of feedback. *Review of Educational Research,* 77(1), 81-112.

Havnes, A., Smith, K., Dysthe, O., & Ludvigsen, K. (2012). *Formative assessment and feedback: Making learning visible.* Studies in Educational Evaluation, 38(1), 21-27.

Henderson, M., & Phillips, M. (2015). *Video-based feedback on student assessment: scarily personal.* Australasian Journal of Educational Technology, 31(1).

Henderson, M., Ryan, T., & Phillips, M. (2019). *The challenges of feedback in higher education.* Assessment & Evaluation in Higher Education, 44(8), 1237-1252.

Hendry, G. D., Brombergo, N., & Armstrong, S. (2016). *Conudrums and complexity: Combining generative dialogue and structured feedback to tune conventional interpretations of feedback in learning and teaching.* Assessment & Evaluation in Higher Education, 41(3), 472-484.

Henning, E., Van Rensburg, W., & Smit, B. (2004). *Finding your way in qualitative research* (pp. 19-22). Pretoria: Van Schaik.

Henning, E. (2007). *Finding your way in qualitative research.* Pretoria: Van Schaik.

Heritage, M. (2010). *Formative assessment and next-generation assessment systems: Are we losing an opportunity?* Council of Chief State School Officers.

Hesse-Biber, S. N., & Leavy, P. (2011). *The practice of qualitative research.* Sage.

Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). *The difference between emergency remote teaching and online learning.* Educause Review, 27.

Holloway, I. (2005b). *Qualitative research in health care.* McGraw-Hill Education (UK).

Hosmer Jr, D. W. (2008). *Applied logistic regression* (Vol. 398). John Wiley & Sons.

Huang, S. C. (2002). *Computers and assessment: The effects of word processing on the quality and quantity of student writing and revision strategies.*

Huang, G., Johnson, N., & Sampson, A. (2020). *Action reaction. How we can use the COVID-19 disruption as an opportunity to improve education.* QS Wownews.

Huda, M., Kabir, A. H., & Siddiq, M. G. (2020). *Getting instructional assessment right in the 21st century blended learning environment (able).* Journal of Applied Research in Higher Education.

Hyland, P. (2001). *Learning from feedback: The student perspective.* Studies in Educational Evaluation, 27(2), 93-108.

Hyland, K., & Hyland, F. (2001). *Sugaring the pill: Praise and criticism in written feedback.* Journal of second language writing, 10(3), 185-212.

Hyland, K., & Hyland, F. (2006). *Feedback on second language students' writing.* Language teaching, 39(2), 83-101.

Iglesias-Pradas, S., Hernández-García, Á., Chaparro-Peláez, J., & Prieto, J. L. (2021). *Emergency remote teaching and students' academic performance in higher education during the COVID-19 pandemic: A case study.* Computers in Human Behavior, 119, 106713.

Ilgen, D. R., Fisher, C. D., & Taylor, M. S. (1979). *Consequences of individual feedback on behavior in organizations.* Journal of Applied Psychology, 64(4), 349-371.

Ismail, A. N., Yunus, M. M., & Gallagher, C. (2020). *Using ICT to provide access to learning for students in a pandemic: how ready are Malaysian academics?.* International Journal of Learning, Teaching and Educational Research, 19(9), 175-194.

Jazvac-Martek, M. (2009). *Oscillating role identities: The academic experiences of education doctoral students.* Innovations in Education and Teaching International, 46(3), 253-264.

Jdaitawi, M. (2021). *The effect of Automated Feedback on Students' learning in University Science Education: Evidence from Saudi Arabia.* Research in Learning Technology, 29.

Jensen, K., Bearman, M., & Boud, D. J. (2021). *Automated checkpoints for self-regulated learning and assessment feedback triggers.* Assessment & Evaluation in Higher Education, 1-14.

Johnson, C. I., & Cooke, A. (2016*). Self-regulation of learning and pedagogic issues across the disciplines*. In C. W. M. Lam & C. P. K. Koh (Eds.), Motivation, learning and instruction (pp. 17-36). Centre for Development of Education Excellent, Nanyang Technological University.

Jones, B. D., & Araje, L. B. (2002). *The impact of constructivism on education: Language, discourse, and meaning.* American Communication Journal, 5(3), 1-10.

Jones, A., & Gorra, A. (2013). *Assessment feedback only on demand: Supporting the few not supplying the fittest.* Active Learning in Higher Education, 14(2), 99-109.

Jones, H., Hoppitt, L., James, H., Prendergast, J., Rutherford, S., Yeoman, K. and Young, M. (2012). *Exploring Students' Initial Reactions to then Feedback They Receive on Coursework*. Bioscience Education, 20:1, 3-21, DOI: 10.11120/beej.2012.20000004.

Keller, J. M. (1987). *Development and use of the ARCS model of instructional design.* Journal of Instructional Development, 10(3), 2-10.

Khan, N. S., Patra, S., Vaney, N., Mehndiratta, M., & Chauhan, R. (2021). *Students' perspective on e-assessments, remote proctored examinations, and e-learning during COVID-19.* International Journal of Medical Students, 9(2), 147.

Khanare, F. (2009). *Schoolchildren affected by HIV in rural South Africa: Schools as environments that enable or limit coping.* African Journal of AIDS Research, 8(4), 457-466.

Khlaif, Z. N., Salha, S., & Kouraichi, B. (2021). *Emergency remote learning during COVID-19 crisis: Students' engagement.* Education and Information Technologies, 26(6), 7033-7055.

Kim, H. S. (2001). *The impact of technology on motivation, engagement and achievement in a blended learning environment.* Society for Information Technology & Teacher Education International Conference (pp. 1911-1916).

King, N., & Horrocks, C. (2010). *Interviews in qualitative research.* SAGE Publications Limited.

King, D. (2016). *Feedback and reassessment: Moving forward student engagement with written feedback [Doctoral dissertation, University of East London].* UEL Research Repository. https://repository.uel.ac.uk/item/868z8

Kluger, A. N., & DeNisi, A. (1996). *The effects of feedback interventions on performance: a historical review, a meta-analysis, and a preliminary feedback intervention theory.* Psychological bulletin, 119(2), 254.

Labuhn, A. S., Zimmerman, B. J., & Hasselhorn, M. (2010). *Enhancing students' self-regulation and mathematics performance: The influence of feedback and self-evaluative standards.* Metacognition and Learning, 5(2), 173-194.

Lang, A. (2000). *The limited capacity model of mediated message processing.* Journal of Communication, 50(1), 46-70.

Lee, S., Ang, R. P., & Dipolog-Ubanan, G. F. (2019). *Evaluating the effectiveness of teacher-training workshop on the use of social-emotional learning strategies.* The Asia-Pacific Education Researcher, 28(5), 359-368.

Lee, I., & Evans, N. W. (2019). *Feedback to language learners: Efficacy and ethics.* System, 87, 102213.

Levy, M., & Murray, L. (2005). *Tertiary dialogue project: Final report.* Computers & Education, 45(1), 93-116.

Li, J., & De Luca, R. (2014). *Review of assessment feedback.* Studies in Higher Education, 39(2), 378-393.

Lillis, T., & Turner, J. (2001). *Student writing in higher education: Contemporary confusion, traditional concerns.* Teaching in Higher Education, 6(1), 57-68.

Lin, J. W., & Lin, H. C. K. (2016). *Student factors motivating the acceptance of web-based formative assessment for descriptive statistics courses.* The International Journal of Information and Learning Technology, 33(6), 327-343.

Lipnevich, A. A., & Smith, J. K. (2009). *Effects of differential feedback on students' examination performance.* Journal of Experimental Psychology: Applied, 15(4), 319-333.

Lipnevich, A. A., Berg, D. A. G., & Renninger, K. A. (2020). *Student self-regulated engagement in classroom environments.* In K. A. Renninger & S. E. Hidi (Eds.), The Cambridge handbook of motivation and learning (pp. 328-350). Cambridge University Press.

Lipnevich, A. A., Murano, D., Krannich, M. A. S., & Goetze, S. (2021). *Don't worry, you are going to be fine: Providing feedback on high-stakes exams reduces negative affect, but maintains performance.* Motivation and Emotion, 45(3), 443-458.

Liu, C. H., & Matthews, R. (2005). *Vygotsky's philosophy: Constructivism and its criticisms examined.* International Education Journal, 6(3), 386-399.

Lizzio, A., & Wilson, K. (2008). *Feedback on assessment: Students' perceptions of quality and effectiveness.* Assessment & Evaluation in Higher Education, 33(3), 263-275.

Lobe, B., Morgan, D., & Hoffman, K. A. (2020). *Qualitative data collection in an era of social distancing.* International Journal of Qualitative Methods, 19, 1609406920937875.

Locke, E. A., & Latham, G. P. (2002). *Building a practically useful theory of goal setting and task motivation: A 35-year odyssey.* American Psychologist, 57(9), 705-717.

Lu, J., & Law, N. W. (2012). *Understanding collaborative learning behavior from Moodle log data.* Interactive Learning Environments, 20(5), 451-466.

MacArthur, C. A., & Villagran, C. R. (2015). *Students with disabilities' exposure to technology through video modeling and prompting and task engagement in an academic setting.* Journal of Special Education Technology, 30(4), 207-224.

McConlogue, T. (2015). *Making judgements: Investigating the process of composing and receiving peer feedback.* Studies in Higher Education, 40(9), 1495-1506.

Macgregor, G., Spiers, A., & Taylor, C. (2011). *Exploratory evaluation of audio email technology in formative assessment feedback.* Research in Learning Technology, 19(1).

McKinley, J. (2015). *Critical argument and writer identity: Social constructivism as a theoretical framework for EFL academic writing.* Critical Inquiry in Language Studies, 12(3), 184-207.

McLeod, S. A. (2014). *Lev Vygotsky.* Simply Psychology.

Madell, D., & Muncer, S. (2007). *Are Internet and paper-based methods equivalent for collecting questionnaire data? A four study comparison.* International Journal of Market Research, 49(3), 335-347.

Mahmoel, M., Zakariya, Y. F., & Boukadi, S. (2020*). Factors influencing students' acceptance of e-assessment: A case study of Arab Open University.* International Journal of Educational Technology in Higher Education, 17(1), 1-19.

Maila, M. W. (2020, February). *Flexibility and accessibility of online formative assessment in higher education: First year students' experiences.* In Journal of Physics: Conference Series (Vol. 1461, No. 1, p. 012095). IOP Publishing.

Makgamatha, M. W., Soldaat, K., Bozalek, V., & Gachago, D. (2020). *Responding to student challenges in emergency remote teaching during COVID-19: The case of universities in the Western Cape of South Africa.* Skills at Work: Theory and Practice Journal, 11(1), 96-120.

Makhubele, L. (2020). *2020 Academic Year has been saved Ministers.* Parliamentary Monitoring Group.

Mao, J., & Lee, J. C. K. (2020). *Investigating predictive validity of reading engagement for science performance and students' perceptions of classroom learning environment in Hong Kong.* Asia Pacific Education Review, 21(1), 171-183.

Maree, K. (2007). *First steps in research*. Van Schaik Publishers.

Margolis, E., Soldatenko, M., Acker, S., & Gair, M. (2001). *Peekaboo: Hiding and outing the curriculum.* In E. Margolis (Ed.), The hidden curriculum in higher education (pp. 1-20). Routledge.

Mark, K. (2010). *Pearson new international edition education and technology: Key issues and debates.* Bloomsbury Publishing.

Marshall, C., & Rossman, G. B. (2016). *Designing qualitative research (6th ed.).* Sage Publications.

Mason, J. (2002). *Qualitative researching.* Sage.

Mason, J. (2012). *Qualitative researching.* Sage.

Mayer, R. E. (2004). *Should there be a three-strikes rule against pure discovery learning?.* American psychologist, 59(1), 14.

Mbatha, S., & Makhanya, T. P. (2021). *Inducing computer self-efficacy for blended learning in higher education through support for basic computer skills.* South African Journal of Higher Education, 35(5), 248-264.

McAndrew, P., & Reigstad, T. J. (2001). *Tutoring writing: A practical guide for conferences.* Boynton/Cook Publishers Heinemann.

McCarthy, J. (2015). *Evaluating written, audio and video feedback in higher education summative assessment tasks.* Issues in Educational Research, 25(2), 153-169.

McMillan, J. H., & Schumacher, S. (2010). *Research in education: Evidence-based inquiry.* MyEducationLab Series. Pearson.

Merriam, S.B. (2009). *Qualitative Research: a guide to design and interpretation.* San Francisco: Jossey-Bass.

Merriam, S. B., & Tisdell, E. J. (2015). *Qualitative research: A guide to design and implementation (4th ed.).* Jossey-Bass.

Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation (4th ed.).* Jossey-Bass.

Merry, S., & Orsmond, P. (2008). S*tudents' attitudes to and usage of academic feedback provided via audio files.* Bioscience education, 11(1), 1-11.

Mertens, D. M. (2021). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods (5th ed.).* Sage Publications.

Meyer, K. A., & Turner, J. C. (2006). *Re-conceptualizing emotion and motivation to learn in classroom contexts.* Educational Psychology Review, 18(4), 377-390.

Mhlanga, D., & Moloi, T. (2020). *COVID-19 and the digital transformation of education: What are we learning on 4IR in South Africa?* Education Sciences, 10(7), 180.

Mishra, L., Gupta, T., & Shree, A. (2020). *Online teaching-learning in higher education during lockdown period of COVID-19 pandemic.* International Journal of Educational Research Open, 1, 100012.

Moawad, R. A. (2020). *Online learning during the COVID-19 pandemic and academic stress in university students.* Revista Romaneasca pentru Educatie Multidimensionala, 12(1Sup2), 100-107.

Moffett, R. L., Padgett, C. R., & Grieve, C. (2020). *Student connections with faculty and peer advisors at community colleges.* Journal of College Student Retention: Research, Theory & Practice, 1521025120917585.

Mohmmed, A. O., Khidhir, B. A., Nazeer, A., & Vijayan, V. J. (2020). *Emergency remote teaching during Coronavirus pandemic: the current trend and future directive at Middle East College Oman*. Innovative Infrastructure Solutions, 5(3), 1-11.

Montgomery, J. L., & Baker, W. (2007). Teacher-written feedback: Student perceptions, teacher self-assessment, and actual teacher performance. Journal of Second Language Writing, 16(2), 82-99.

Molloy, E., & Boud, D. (2013). *Changing conceptions of feedback.* In D. Boud & E. Molloy (Eds.), Feedback in higher and professional education: Understanding it and doing it well (pp. 11-33). Routledge.

Morton, P., & Thornley, G. (2001). Experiences of doctoral students: Addressing issues about coursework, supervision and dissertation writing. New Zealand Association for Research in Education, Christchurch.

Mory, E. H. (2003). Feedback research revisited. Handbook of research on educational communications and technology, 2, 745-783.

Moultrie, J., & de Haan, R. (2020). *A gateway to plant technology.* Routledge.

Mukuka, J., Shumba, O., & Mulenga, J. M. (2021). *Has Covid-19 Impacted the Education Sector in Zambia?.* Frontiers in Education, 6.

Mukhtar, K., Javed, K., Arooj, M., & Sethi, A. (2020). *Advantages, Limitations and Recommendations for Online Learning during COVID-19 Pandemic Era*. Pakistan Journal of Medical Sciences, 36, S27. https://doi.org/10.12669/pjms.36.COVID19-S4.2785

Murphy, P. K. (1997). *Constructivism and epistemology. In M. B. Aaron, B. Winawer, & A. C. Pettersson (Eds.)*, The MIT encyclopedia of the cognitive sciences (pp. 170-172). MIT Press.

Napoles, M., & Luna-Nevarez, C. (2020). *How digital technologies have transformed assessment in higher education: Strengths and limitations.* In S. Gregory & J. Dickens (Eds.), Reimagining the new pedagogical possibilities for universities (pp. 224-240). IGI Global.

Narciss, S. (2008). *Feedback strategies for interactive learning tasks.* In J. M. Spector, M. D. Merrill, J. J. G. van Merriënboer, & M. P. Driscoll (Eds.), Handbook of research on educational communications and technology (3rd ed., pp. 125-144). Lawrence Erlbaum Associates.

Narciss, S. (2013). *Designing and evaluating tutoring feedback strategies for digital learning environments on the basis of the interactive tutoring feedback model.* Digital Education Review, 23, 7-26.

Narciss, S., & Huth, K. (2004). *How to design informative tutoring feedback for multimedia learning.* In H. M. Niegemann, D. Leutner, & R. Brünken (Eds.), Instructional design for multimedia learning (pp. 181-195). Waxmann.

Narciss, S., Sosnovsky, S., Schnaubert, L., Andrès, E., Eichelmann, A., Goguadze, G., & Melis, E. (2014). *Exploring principles of heuristic dynamic feedback to support students' learning.* In S. Trausan-Matu, K.E. Boyer, M. Crosby & K. Panourgia (Eds.), Intelligent Tutoring Systems (pp. 596-601). Springer.

National Planning Authority [NPA] (2012). *National Development* Plan 2010/11 – 2014/15. Kampala: Author.

National Institute for Communicable Diseases. [NICD] (2020). *Coronavirus Disease 2019 (COVID-19) caused by a novel coronavirus: Guidelines for Case-Finding, Diagnosis, Management and Public Health Response.* https://www.nicd.ac.za/diseases-a-z-index/covid-19/.

Nene, E. (2014). *A perspective on effective feedback practices.* South African Journal of Higher Education, 28(1), 322-348.

Ngwenya, J., & Maistry, S. (2012). *Teaching practice dilemmas and conflicts: experiences of novice geography student teachers in South Africa.* South African Geographical Journal, 94(1), 101-112.

Nicol, D. (2010). *From monologue to dialogue: Improving written feedback processes in mass higher education.* Assessment & Evaluation in Higher Education, 35(5), 501-517.

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.

Nicol, D. (2014). *Guiding principles for feedback: An applied model.* In C. Kreber, C. Anderson, N. Entwistle & J. McArthur (Eds.), Advances and innovations in university assessment and feedback (pp. 197-228). Edinburgh University Press.

Nicol, D., Thomson, A., & Breslin, C. (2014). *Rethinking feedback practices in higher education: a peer review perspective.* Assessment & Evaluation in Higher Education, 39(1), 102-122.

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.

Nieuwenhuis, J. (2007). *Qualitative research designs and data gathering techniques.* First steps in research, 70-97.

Noy, D. (2003). *Palestinian refugee voices: Symbolic violence and the mathematics of diaspora experience.* Peace and Conflict: Journal of Peace Psychology, 9(3), 273.

Nyathi, F. C. (2020). *Universities turn to remote online learning to beat COVID-19.* University World News.

Onwuegbuzie, A. J., & Leech, N. L. (2007). *Sampling designs in qualitative research: Making the sampling process more public.* The qualitative report, 12(2), 238-254.

Orsmond, P., & Merry, S. (2011). *Feedback alignment: effective and ineffective links between tutors' and students' understanding of coursework feedback.* Assessment & Evaluation in Higher Education, 36(2), 125-136.

Panadero, E., Broadbent, J., Boud, D., & Lodge, J. M. (2022). *Using formative assessment to influence self- and co-regulated learning: the role of evaluative judgement.* European Journal of Psychology of Education, 37, 373-396.

Papi, M., & Khajavy, G. H. (2021). *Motivational Dynamics of Corrective Feedback: Elaborated Feedback versus No Feedback.* Iranian Journal of Language Teaching Research, 9(2), 77-94.

Patton, M. Q. (2002). *Qualitative research and evaluation methods.* 3rd Sage Publications; Thousand Oaks, CA.

Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice (4th ed.)*. SAGE Publications.

Peacock, S., Murray, S., & Scott, A. (2010). *The transformative role of ePortfolios: Feedback in healthcare learning environments.* International Journal of ePortfolio, 10(1), 117-132.

Pekrun, R., Goetz, T., Titz, W., & Perry, R. P. (2002). *Academic emotions in students' self-regulated learning and achievement: A program of qualitative and quantitative research.* Educational Psychologist, 37(2), 91-105.

Pillay, V. (2013). *Effective feedback: The essence of assessment for learning.* Teaching and learning in medical education: A guide for teachers and medical students, 47-50.

Pitt, E., & Norton, L. (2017). *'Now that's the feedback I want!' Students' reactions to feedback on graded work and what they do with it.* Assessment & Evaluation in Higher Education, 42(4), 499-516.

Ponterotto, J. G. (2005). *Qualitative research in counseling psychology: A primer on research paradigms and philosophy of science.* Journal of Counseling Psychology, 52(2), 126-136.

Poulos, A., & Mahony, M. J. (2008). *Effectiveness of feedback: The students' perspective.* Assessment & Evaluation in Higher Education, 33(2), 143-154.

Prawat, R. S., & Floden, R. E. (1994). *Philosophical perspectives on constructivist views of learning.* Educational Psychology, 29(1), 37-48.

Prins, F. J., Sluijsmans, D. M., & Kirschner, P. A. (2006). *Feedback for general practitioners in training: quality, styles, and preferences.* Advances in health sciences education, 11(3), 289-303.

Prior, D. D., Mazanov, J., Meacheam, D., Heaslip, G., & Hanson, J. (2022). *Evaluating feedback literacy in healthcare students: A systematic review of tools.* Perspectives on Medical Education, 11(1), 21-37.

Purssell, E., & Gould, D. (2021). *The therapeutic relationship in cognitive behavioural therapy: A systematic review of quantitative process research.* British Journal of Clinical Psychology, 60(4), 367-386.

Quinn, D., & Nakata, M. (2017). *Looking in the Cultural Mirror: Indigenous Student Perspectives on Cultural Competence in Education.* In Reframing Sociocultural Research on Literacy (pp. 49-64). Taylor & Francis.

Quinton, S., & Smallbone, T. (2010). *Feeding forward: Using feedback to promote student reflection and learning – a teaching model.* Innovations in Education and Teaching International, 47(1), 125-135.

Raaijmakers, S. F., Baars, M., Paas, F., van Merriënboer, J. J., & van Gog, T. (2017). *Training self-regulated learning skills with mobile mirror-based video modeling examples: Attention retention matters.* Computers in Human Behavior, 75, 126-139.

Race, P. (2020). *The lecturer's toolkit: A practical guide to assessment, learning and teaching.* Routledge.

Rahiem, M. D. H. (2020). *The Emergency Remote Learning Experience of University Students in Indonesia amidst the COVID-19 Crisis.* International Journal of Learning, Teaching and Educational Research, 19, 1-26. https://doi.org/10.26803/ijlter.19.6.1.

Rahiem, M. D. H. (2021). *Remaining motivated despite the limitations: University students' learning propensity during the COVID-19 pandemic.* Children and Youth Services Review, 120, 105802

Raj, A., Jasola, S., & Ila. M. (2020). *Effect of COVID-19 Pandemic on Student's Learning -- A Survey.* International Journal of Advanced Science and Technology. 29 (7), 6702 – 6713.

Rakoczy, K., Pinger, P., Hochweber, J., Klieme, E., Schütze, B., & Besser, M. (2019). *Formative assessment in mathematics: Mediated by feedback's perceived usefulness.* Learning and Instruction, 60, 154-165.

Ramani, S., & Krackov, S. K. (2012). *Twelve tips for giving feedback effectively in the clinical environment.* Medical teacher, 34(10), 787-791.

Randolph, P. T. (2017). *Instructional captioning in audio description for web accessibility.* Journal of Audiovisual Translation, 1(1), 177-196.

Rasheed, R. A., Kamsin, A. & Abdullah, N. A. (2020). *Students and teachers' challenges of using technology in blended learning environments*. Association for Computing Machinery. New York, NY, United States. https://doi.org/10.1145/3383845.3383875

Ratner, C. (2019). *Vygotsky's Sociohistorical Psychology and its contemporary applications.* Routledge.

Rens, A. C. (2021). *Studying online under COVID-19 in South Africa: A case of applied drama students.* Research in Drama Education: The Journal of Applied Theatre and Performance, 26(1), 149-154.

Richardson, V. (2003). *Constructivist pedagogy.* Teachers College Record, 105(9), 1623-1640.

Richardson, A., & Rabiee, F. (2001). *'A question of access'–an exploration of the factors influencing the health of young males aged 15–19 living in Corby and their use of health care services.* Health Education Journal, 60(1), 3-16.

Ripoll, J. C., Godino-Ojer, C. R., & Calzada, M. C. (2020). *The impact of COVID-19 lockdown on remote student engagement in Ireland*. Irish Educational Studies, 1-17.

Ritchie, J., & Lewis, J. (Eds.). (2003). *Qualitative research practice: A guide for social science students and researchers.* Sage.

Roberts, K., Dowell, A., & Nie, J. B. (2019). *Attempting rigour and replicability in thematic analysis of qualitative research data; a case study of codebook development*. BMC Medical Research Methodology, 19(1), 66.

Robinson, L. (2009). *A summary of diffusion of innovations.* Enabling change. https://twvideonetwork.ca/Org6.aspx.

Rockinson-Szapkiw, A. J., & Spaulding, L. S. (2014). *Navigating the doctoral journey: A handbook of strategies for success.* Rowman & Littlefield.

Rokoczy, K., Pinger, P., Hochweber, J., Klieme, E., Schütze, B., & Besser, M. (2019). *Formative assessment in mathematics: Mediated by feedback's perceived usefulness.* Learning and Instruction, 60, 154-165.

Rowe, A. D., & Fitness, J. (2018). *Understanding the role of negative emotions in adult learning and achievement: A social functional perspective.* Behavioral Sciences, 8(2), 27.

Rowe, A. D., & Wood, L. N. (2008). *Student perceptions and preferences for feedback.* Asian Social Science, 4(3), 78-88.

Rummel, E. (2008). *Constructing cognition.* American Scientist, 96(1), 80-82.

Rust, C. (2002). *The impact of assessment on student learning: How can the research literature practically help to inform the development of departmental assessment strategies and learner-centred assessment practices?* Active Learning in Higher Education, 3(2), 145-158.

Ryan, R. M., & Deci, E. L. (2000). *Intrinsic and extrinsic motivations: Classic definitions and new directions.* Contemporary Educational Psychology, 25(1), 54-67.

Ryan, T., & Henderson, M. (2018). *Feeling feedback: Students' emotional responses to educator feedback.* Assessment & Evaluation in Higher Education, 43(6), 880-892.

Saldaña, J. (2021). *The coding manual for qualitative researchers (4th ed.)*. SAGE Publications.

Sambell, K., McDowell, L., & Montgomery, C. (2013). *Assessment for learning in higher education.* Routledge.

Sarantakos, S. (2005). *Social Research.* Hampshire: Palgrave Macmillan.

Sarcona, A., Dirha, D. M., & Davidson, C. (2020). *Developing course learning outcomes: A South African perspective on using constructive alignment to address ethics, values and social responsibility.* Environmental Education Research, 1-23.

Sardareh, S.A. & Saad, M.R.M. (2012). A sociocultural Perspective on Assessment for learning: The case of a Malaysian Primary School ESL context. *Procedia – Social and Behavioral Science, 66,* 343-353.doi:10.1016/j.sbspro.2012.11.277.

Sayers, S., Fewings, N., Fung, R., & Sanders, L. (2022). *A paradigm shift in feedback practice to align with the Sustainable Development Goals: the 'Learning engineer'.* Higher Education Research & Development, 1-17.

Sayers, P., Sogunro, O., Moh'd Sidique, S., Sweetman Evans, K. (2022). *Facilitating academic success via automated feedback and formative assessment technology.* The EvoLLLution. https://evolllution.com/revenue-streams/distance_online_learning/facilitating-academic-success-via-automated-feedback-and-formative-assessment-technology/

Scardamalia, M., & Bereiter, C. (2014). *Knowledge building and knowledge creation: Theory, pedagogy, and technology.* In K. Sawyer (Ed.), Cambridge handbook of the learning sciences (2nd ed., pp. 397-417). Cambridge University Press.

Scherer, R., Howard, S. K., Tondeur, J., & Siddiq, F. (2021). *Profiling teachers' readiness for online teaching and learning in higher education: Who's ready?.* Computers in Human Behavior, 118, 106675.

Scott, S. E., & Palincsar, A. S. (2013). *Sociocultural theory.* In J. Hattie & E. M. Anderman (Eds.), International guide to student achievement (pp. 84-85). Routledge.

Segers, M., & Verhoeven, L. (2009). *Learning in a sheltered Internet environment: The use of didactic practices in constructing student knowledge about immigration.* Learning and Instruction, 19(5), 466-482.

Seidman, I. (2013). *Interviewing as qualitative research: A guide for researchers in education and the social sciences.* Teachers college press.

Selvaraj, M., Vishnu, P. R., Benson, S., & Mathew, M. (2021). *Language and complexity of formative feedback: Medical undergraduates' perspectives.* A mixed-methods study. BMC medical education, 21(1), 1-8.

Shakedi, A. (2012). *Sociocultural theory and second language acquisition.* Translation Directory.

Shenton, A. K. (2004). *Strategies for ensuring trustworthiness in qualitative research projects.* Education for information, 22(2), 63-75.

Shim, T. E. & Lee, S. Y. (2020). College students' experience of emergency remote teaching due to COVID-19. Children and Youth Services Review [Vol. 119]. Retrieved from https://doi.org/10.1016/j.childyouth.2020.105578

Shrestha, S. (2022). *Student perceptions of online assessment feedback in higher education.* Assessment & Evaluation in Higher Education, 47(1), 105-118.

Shunk, D. H. (2012). *Learning theories: An educational perspective (6th ed.).* Pearson.

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

Shute, V. J., & Zapata-Rivera, D. (2010). *Educational assessment.* Adaptive technologies for training and education, 71-105.

Shuttleworth, M. (2008). *Qualitative Research Design.* Experiment Resources. https://explorable.com/qualitative-research-design.

Sinclair, H. K., & Cleland, J. A. (2007). *Undergraduate medical students: Who seeks formative feedback?* Medical Education, 41(6), 580-582.

Singhal, T. (2020). A Review of Coronavirus Disease-2019 (COVID-19). The Indian Journal of Pediatrics, 87(4), 281-286.

Sintema, E. J. (2020). *Effect of COVID-19 on the performance of grade 12 students: Implications for STEM education.* Eurasia Journal of Mathematics, Science and Technology Education, 16(7), em1851.

Smailes, J., & Gannon-Leary, P. (2020). *Peer learning for academic literacies.* Academic Literacies Anthology, 3.

Smalley, A. (2020). *Higher education responses to COVID-19 in disadvantaged communities.* National Institute for Learning Outcomes Assessment.

Smith, J., & Firth, J. (2011). *Qualitative data analysis: the framework approach.* Nurse researcher, 18(2), 52-62.

Smith, A. M. (2012). Research Methodology: A Step-by-step Guide for Beginners. *Nurse Education in Practice*, 12(3), 25-32.

Smith, C. D., Worsfold, K., Davies, L., Fisher, R., & McPhail, R. (2013). *Assessment literacy and student learning: The case for explicitly developing students 'assessment literacy'.* Assessment & Evaluation in Higher Education, 38(6), 644-657.

Smith, J. A. (Ed.). (2021). *Qualitative psychology: A practical guide to research methods (4th ed.).* Sage Publications.

Sohrabi, C., Alsafi, Z., O'Neill, N., Khan, M., Kerwan, A., Al-Jabir, A. & Agha, R. (2020). *World Health Organization declares global emergency: A review of the 2019 novel coronavirus (COVID-19).* International Journal of Surgery.

South African Qualifications Authority (SAQA). (2020). *Criteria and guidelines for the implementation of recognition of prior learning.*

Srivastava, K., Jacob, A., Charles, S. L., Daniel, P. R., Mathew, A., Shanthi, R., ... & Rabi, S. (2021). *First-year medical students' anxiety, stress and expectations during COVID-19.* Medical Education Online, 26(1), 1911706.

Staff Writer. (2020b). *Cape universities launch 'data-free' learning platforms.* University World News.

Stake, R. E. (1995). *The art of case study research.* Sage Publications.

Stobart, G., & Gipps, C. (2010). Alternative assessment. In B. McGraw, E. Baker, & P. Peterson (Eds.), International encyclopedia of education (3rd ed., pp. 202–208). Oxford, UK: Elsevier.

Stone, N. J., & Stone, A. (1985). *The prediction of successful computer programming.* Computers in Human Behavior, 1(1), 17-28.

Strauss, A., & Corbin, J. (1990). *Basics of qualitative research.* Sage publications.

Supiano, B. (2020). *Teaching: Assessment in a Continuing Pandemic*. The Chronicle of Higher Education. Washington, D.C.

Sutton, P. (2012). *Conceptualizing feedback literacy: Knowing, being, and acting.* Innovations in Education and Teaching International, 49(1), 31-40.

Swart, S. C., Nielen, T. M., & Sikkema-de Jong, M. T. (2019). *Formative Peer Assessment Using Screencasts: Benefits, Obstacles, and Implications.* Transformative Dialogues: Teaching & Learning Journal, 12(1).

Sweller, J. (1988). *Cognitive load during problem solving: Effects on learning.* Cognitive Science, 12(2), 257-285.

Tabak, I., & Baumgartner, E. (2004). *The teacher as partner: Exploring participant structures, symmetry, and identity work in scaffolding.* Cognition and Instruction, 22(4), 393-429.

Tai, J., Ajjawi, R., Boud, D., Dawson, P., & Panadero, E. (2018). *Developing evaluative judgement: Enabling students to make decisions about the quality of work.* Higher Education, 76(3), 467-481.

Tai, J., Bellon-Harn, M., Arredondo, A. M., Yuen, L., & Hahn, J. (2018). *Using feedback to improve competency skills: A key instructional design element.* Biochemistry and Molecular Biology Education, 46(2), 139-147.

Taras, M. (2006). *Do unto others or not: Equity in feedback for undergraduates.* Assessment & Evaluation in Higher Education, 31(3), 365-377.

Tate, A., & Warschauer, M. (2022). *Student engagement in the era of emergency remote teaching and learning.* Educational Media International, 1-16.

Tate, T. P., & Warschauer, M. (2022). *Automated writing evaluation: A tool for enhancing learning and instruction.* Educational Technology Research and Development, 70, 1797–1848.

Taylor, S. J., Bogdan, R., & DeVault, M. (2016). *Introduction to qualitative research methods: A guidebook and resource.* John Wiley & Sons.

Terry, G., Hayfield, N., Clarke, V., & Braun, V. (2017). *Thematic analysis*. In C. Willig & W. Stainton Rogers (Eds.), The SAGE handbook of qualitative research in psychology (pp. 17-37). SAGE Publications.

Teunissen, P. W., Kok, E. M., & Schuit, S. C. (2020*). Learning to give feedback: A journey through process and person.* Medical Teacher, 42(8), 908-914.

Thanh, N. C., & Thanh, T. T. (2015). *The interconnection between interpretivist paradigm and qualitative methods in education*. American Journal of Educational Science, 1(2), 24-27.

The Presidency. (2020). *Statement by President Cyril Ramaphosa on measures to combat Covid-19 epidemic.* https://www.gov.za/speeches/statement-president-cyril-ramaphosa-escalation-measures-combat-covid-19-coronaviruss-16-mar.

Thomas, D. R. (2006). *A general inductive approach for analyzing qualitative evaluation data.* American Journal of Evaluation, 27(2), 237-246.

Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition.* University of Chicago Press.

To, J., & Carless, D. (2016). *Making productive use of exemplars: Peer discussion and teacher guidance for positive transfer of strategies.* Journal of Further and Higher Education, 40(6), 746-764.

Tobias, S., & Duffy, T. M. (2009). *Constructivist instruction: Success or failure?* Routledge.

Torrance, H. (2007). *Assessment as learning? How the use of explicit learning objectives, assessment criteria and feedback in post-secondary education and training can come to dominate learning.* Assessment in Education: Principles, Policy & Practice, 14(3), 281-294.

Trafford, V., & Leshem, S. (2008). *Stepping Stones to Achieving your Doctorate: By Focusing on your Viva from the start.* Open University Press.

Truscott, J. (2004). *Evidence and conjecture on the effects of correction: A response to Chandler.* Journal of Second Language Writing, 13(4), 337-343.

United Nations Educational, Scientific and Cultural Organisation [UNESCO]. (2020). *COVID-19 Education Response.* Retrieved from: https:// en.unesco. org/covid 19/educationresponse/globalcoalition.

United Nations Educational, Scientific and Cultural Organisation [UNESCO] (2020c). *Impact of COVID-19 on Higher Education around the World.* https://en.unesco.org/news/impact-covid-19-higher-education-around-world.

Uzuntiryaki-Kondakci, E., & Capa-Aydin, Y. (2013). *Predicting critical thinking skills of university students through metacognitive self-regulation skills and chemistry self-efficacy.* Educational Sciences: Theory and Practice, 13(1), 666-670.

van der Kleij, F. M. (2019). *Comparison of teacher and student perceptions of formative assessment feedback practices and association with individual student characteristics.* Teaching and Teacher Education, 85, 175-189.

van der Meer, J., Jansen, E., & Torenbeek, M. (2010). *'It's almost a mindset that teachers need to change': First-year students' need to be inducted into time management.* Studies in Higher Education, 35(7), 777-791.

van der Schaaf, M., Baartman, L., Prins, F., Oosterbaan, A., & Schaap, H. (2013). *Feedback dialogues that stimulate students' reflective thinking.* Scandinavian Journal of Educational Research, 57(3), 227-245.

van Manen, M. (2016). *Phenomenology of practice: Meaning-giving methods in phenomenological research and writing.* Routledge.

Värlander, S. (2008). *The role of students' emotions in formal feedback situations.* Teaching in Higher Education, 13(2), 145-156.

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.

Vu, N. T., Harbaugh, A. G., De Roo, D. S., Biesterveld, B. E., Gauger, P. G., Dimick, K. M., & Sandhu, N. P. (2020). *Altering feedback during medical training: Is more feedback better?.* The Journal of surgical research, 254, 107-115.

Vygotsky, L.S. (1978). Chapter 6 in Mind in society. Cambridge, MA: Harvard UP.

Wang, M. C., Haertel, G. D., & Walberg, H. J. (1990). *What influences learning? A content analysis of review literature.* The Journal of Educational Research, 84(1), 30-43.

Weaver, M. R. (2006). *Do students value feedback? Student perceptions of tutors' written responses.* Assessment & Evaluation in Higher Education, 31(3), 379-394.

Weegar, M. A., & Pacis, D. (2012). *A comparison of two theories of learning-behaviorism and constructivism as applied to face-to-face and online learning.* In Proceedings e-leader conference, Manila.

Wellington, J., Moore, S., & Alleyne, G. (2006). *The researcher's role in higher education: A work in progress-some perspectives.* Journal of Further and Higher Education, 30(3), 209-223.

Wertsch, J. V. (1985). *Vygotsky and the social formation of mind.* Harvard University Press.

West, R. E., & Turner, W. (2015). *Communication tedency-outcome (CTO) measures: Explaining outcomes with communication measures.* Computers in Human Behavior, 48, 291-300.

Wiegandt, C. & Iser, J. (2020). *Universities grapple with emergency remote teaching during COVID-19 outbreak.* University World News.

Wiliam, D. (2011). *Embedded formative assessment.* Solution Tree Press.

Winstone, N. E., & Boud, D. (2019). *Exploring cultures of feedback practice: The case of the UK higher education context.* In M. E. Wymbs (Ed.), Student feedback: Centering on writing centers (pp. 87-102). Springer.

Winstone, N., & Boud, D. (2020). *Exploring cultures of feedback practice: The case of UK higher education.* Higher Education Research & Development, 39(4), 604-618.

Winstone, N., & Boud, D. (2022). *The need to disentangle assessment and feedback in higher education.* Studies in Higher Education, 47(3), 656-667.

Winstone, N. E., & Carless, D. (2019). *Designing effective feedback processes in higher education: A learning-focused approach.* Routledge.

Winstone, N. E., Nash, R. A., Rowntree, J., & Parker, M. (2017). *'It'd be useful, but I wouldn't use it': barriers to university students' feedback seeking and recipience.* Studies in Higher Education, 42(11), 2026-2041.

Wisniewski, B., Zierer, K., & Hattie, J. (2020). *The power of feedback revisited: A meta-analysis of educational feedback research.* Frontiers in Psychology, 10, 3087.

Woo, Y., & Reeves, T. C. (2007). *Meaningful interaction in web-based learning: A social constructivist interpretation.* The Internet and higher education, 10(1), 15-25.

World Health Organization. (2020). *WHO Director-General's opening remarks at the media briefing on COVID-19 - 11 March 2020.* https://www.who.int/dg/speeches/detail.

Worldometer (2021). COVID Live Update. https://www.worldometers.info/coronavirus/country/zambia/

Xu, Y., & Brown, G. T. (2016). *Teacher assessment literacy in practice: A reconceptualization.* Teaching and Teacher Education, 58, 149-162.

Xu, D., & Xu, Y. (2019). *The promises and limits of online higher education: Understanding how distance education affects access, cost, and quality.* American Enterprise Institute.

Xu, Q., & Xu, J. (2019). *Assessment practices, anatomy instructional efficacy, and student achievement in undergraduate anatomy: A correlational study of course data.* Applied Physiology, Nutrition, and Metabolism, 44(2), 189-195.

Yan, Z. (2020). *Unprecedented pandemic, unprecedented shift, and unprecedented opportunity.* Human Behavior and Emerging Technologies, 2(2), 110-112.

Yan, Z., Li, Z., Panadero, E., Yang, M., Yang, L., & Lao, H. (2022). *A systematic review on factors influencing teachers' intentions and implementations regarding formative assessment.* Assessment in Education: Principles, Policy & Practice, 29(3), 324-354.

Yang, M., & Carless, D. (2013). *The feedback triangle and the enhancement of dialogic feedback processes.* Teaching in Higher Education, 18(3), 285-297.

Yanow, D., & Schwartz-Shea, P. (Eds.). (2014). *Interpretation and method: Empirical research methods and the interpretive turn.* Routledge.

Yasnitsky, A. (2018). *Vygotsky: An intellectual biography.* Routledge.

Yin, R. K. (2003). *Case Study Research: Design and Methods, Third Edition, Applied Social Research Methods Series, Vol 5.* SAGE Publications.

Yin, R. K. (2018). *Case study research and applications: Design and methods (6th ed.).* Sage Publications.

Young, R. A., & Collin, A. (2004). *Introduction: Constructivism and social constructionism in the career field.* Journal of Vocational Behavior, 64(3), 373-388.

Yu, F., Geng, J., Liu, Y., & Zheng, C. (2021). *Student evaluation of teaching (SET) in higher education: Reliability, validity, and usefulness.* Higher Education, 1-18.

Zhang, Z., & Hyland, K. (2018). *Student engagement with teacher and automated feedback on L2 writing.* Assessing Writing, 36, 90-102.

Zhu, H., Liu, J., Lucas, H. C., Becerik-Gerber, B., & Southers, E. (2020). *Learning effectiveness in online vs traditional classroom settings: A meta-analysis.* In Decision Sciences Institute Annual Meeting Proceedings (Vol. 2, pp. 4420-4441).

Zimmerman, B. J. (2000). *Self-efficacy: An essential motive to learn.* Contemporary educational psychology, 25(1), 82-91.

Zimmerman, B. J., & Tsikalas, K. E. (2005). *Can computer-based learning environments (CBLEs) be used as self-regulatory tools to enhance learning?* Educational Psychologist, 40(4), 267-271.

Zimmerman, B. J. (2008). *Investigating self-regulation and motivation: Historical background, methodological developments, and future prospects.* American Educational Research Journal, 45(1), 166-183.

APPENDICES

Appendix A Semi-structured interview schedule

Background questions

1. How did the swift move from face-to-face learning to emergency remote learning affect your learning?
2. Did you own any personal technological device? If yes, did you use it for learning? If no, how did you learn and access learning material during ERL?
3. Were you able to access all learning resources, including e-formative feedback, through the university's Canvas Learning Management System?

Main questions

1. How long after the submission deadline did you receive comments on your BAT assessment tasks?
2. What are some of the feedback comments you received on your BAT assessment tasks? Please share your experience of receiving e-feedback.
3. How did you feel about the e-feedback comments you received on your BAT assessment tasks?
4. What was your subsequent action after receiving e-feedback on your assessment tasks?
5. Did the e-feedback you received help improve your learning of BAT? Explain.
6. How do you think your experience of receiving e-feedback could be improved?

Semi-structured interview: Student AH

Background questions

1. How did the swift move from face-to-face learning to emergency remote learning affect your learning?

   Student AH: The sudden switch to online learning was really challenging for me. I struggled with feeling motivated and engaged in my courses through just my laptop screen.

2. Did you own any personal technological device? If yes, did you use it for learning? If no, how did you learn and access learning material during ERL?

   Student AH: Yes, I used my laptop for all my coursework. I downloaded lectures, assignments, readings and accessed the course portal to turn in work and view feedback. I didn't have a backup device though, so if I ever had issues with my laptop, it would severely inhibit my ability to participate in the course.

3. Were you able to access all learning resources, including e-formative feedback, through the university's Canvas Learning Management System?

   Student AH: At first it was difficult to access learning resources and feedback. I didn't understand how the course portal worked, so I couldn't check feedback on my work. It was frustrating because I couldn't keep track of how I was doing.

Main questions

4. How long after the submission deadline did you receive comments on your BAT assessment tasks?

   Student AH: I would get a notification that there's a comment on my assignment two weeks after the submission deadline.

5. What are some of the feedback comments you received on your BAT assessment tasks? Please share your experience of receiving e-feedback.

   Student AH: I got comments like "good job!!" or "well done on this and that…". But I was always frustrated that my feedback came back like two weeks after I submitted an assignment. By then, I'd already moved onto other tasks, so I didn't have time to apply the feedback properly to improve next time.

6. How did you feel about the e-feedback comments you received on your BAT assessment tasks?

Student AH: I felt discouraged. I received feedback too late to do anything with it and it was discouraging.

7. What was your subsequent action after receiving e-feedback on your assessment tasks?
   Student AH: By the time I received feedback on one assignment, we had new material to cover and another assessment task due soon. I focused on the next thing rather than applying the retroactive feedback.
8. Did the e-feedback you received help improve your learning of BAT? Explain.
   Student AH: Feedback came back two weeks later, by which point I was assessed on new content. I'd already moved on, so the delayed timing made it hard to implement suggestions.
9. How do you think your experience of receiving e-feedback could be improved?
   Student AH: Timing of feedback is very important. Feedback should come while the assignment material is still fresh so that we can immediately apply it to subsequent tasks.

Semi-structured interview: Student AN

Background questions

1. How did the swift move from face-to-face learning to emergency remote learning affect your learning?

   Student AN: My ability to stay focused on online lessons dropped without the in-person accountability of physically being in a classroom environment. I would stare at my laptop but think of something else and as a result, I missed valuable information.
2. Did you own any personal technological device? If yes, did you use it for learning? If no, how did you learn and access learning material during ERL?

   Student AN: Yes, I did. I used my laptop to attend classes on Microsoft teams.
3. Were you able to access all learning resources, including e-formative feedback, through the university's Canvas Learning Management System?

   Student AN: Yes, I could login and download lectures, submit tasks and receive feedback.

Main questions

4. How long after the submission deadline did you receive comments on your BAT assessment tasks?

   Student AN: It took long ma'am to receive feedback. Like maybe two weeks after submission.
5. What are some of the feedback comments you received on your BAT assessment tasks? Please share your experience of receiving e-feedback.

   Student AN: I received comments like, "You misunderstood the article. Please go through it again for better understanding". What about my responses that made my tutor say I misunderstood the article? I never got to understand. Yho, the feedback I received just didn't specify what was wrong with my work.
6. How did you feel about the e-feedback comments you received on your BAT assessment tasks?

   Student AN: The comments I received made me feel confused. Without an opportunity to talk to my tutor to clarify comments, I was always confused about specific steps I needed to take to improve.
7. What was your subsequent action after receiving e-feedback on your assessment tasks?

Student AN: I just look at it and that was it. For example, a comment like “good job” wasn’t enough to help me understand what I did right. I wanted to know which section of my work was good and which one needed improvement. This that information, I would use the feedback to improve.

8. Did the e-feedback you received help improve your learning of BAT? Explain.

   Student AH: No, I got vague comments that did not tell me what to do to improve. Without specifics on what exactly I needed to do, I couldn’t use feedback to improve in future assignments or to improve my learning.

9. How do you think your experience of receiving e-feedback could be improved?

   Student AN: There should be opportunities for conversations with tutors and lecturers about feedback to increase clarity and provide reassurance if emotions are running high.

Semi-structured interview: Student AP

Background questions

1. How did the swift move from face-to-face learning to emergency remote learning affect your learning?

   Student AP: With everything being online; assignments, and quizzes. I missed out on learning activities like in group projects, discussions and presentations that would've helped me better understand the learning materials.
2. Did you own any personal technological device? If yes, did you use it for learning? If no, how did you learn and access learning material during ERL?

   Student AP: Yes, I did. I used my computer to attend online classes and participate in online discussions on the course portal. I could also download lectures and course articles.
3. Were you able to access all learning resources, including e-formative feedback, through the university's Canvas Learning Management System?

   Student AP: Yes. I could access all learning materials and feedback.

Main questions

4. How long after the submission deadline did you receive comments on your BAT assessment tasks?

   Student AP: Maybe two weeks. It took time for us to get feedback on our assignments. But for tutorial tasks we got feedback weekly.
5. What are some of the feedback comments you received on your BAT assessment tasks? Please share your experience of receiving e-feedback.

   Student AP: For my tutorial tasks, I received comments that stated what I did well and what I needed to improve. But not what I would do to improve. But it was okay because I could reply to my tutor's comment to seek clarification on some feedback comments.
6. How did you feel about the e-feedback comments you received on your BAT assessment tasks?

   Student AP: I felt frustrated when I received generic comments that did not relate to my learning progress. I didn't find such feedback helpful.
7. What was your subsequent action after receiving e-feedback on your assessment tasks?

   Student AP: Some of the comments I received were confusing or conflicted with what I thought I had done well on. I ended up dismissing a lot of the critique if it didn't resonate or felt off-base to me.

8. Did the e-feedback you received help improve your learning of BAT? Explain.

   Student AP: In instances where I couldn't access feedback on time due to unreliable internet connectivity, I couldn't apply feedback in my learning. Also, when my tutor took time to respond to my request for clarity on comments, I couldn't use it to improve my learning.

9. How do you think your experience of receiving e-feedback could be improved?

   Student AP: Provide very tailored, specific guidance on exact areas needing improvement with examples of how to improve - don't just broadly say "elaborate more". Give directions.

Semi-structured interview: Student AR

Background questions

1. How did the swift move from face-to-face learning to emergency remote learning affect your learning?

   Student AR: It was really difficult trying to teach myself complicated concepts without being able to raise my hand and ask questions in real-time during lectures. My comprehension suffered.
2. Did you own any personal technological device? If yes, did you use it for learning? If no, how did you learn and access learning material during ERL?

   Student AR: Yes, I did.
3. Were you able to access all learning resources, including e-formative feedback, through the university's Canvas Learning Management System?

   Student AR: Yes. I could access lecture slides, articles and could access feedback on assignments and tutorial tasks.

Main questions

4. How long after the submission deadline did you receive comments on your BAT assessment tasks?

   Student AR: I got feedback two weeks after submitting a Becoming a Teacher task. This was not fair because it came when I had forgotten the contents of the article that was tested. In most cases, I didn't even pay attention to it because I was focused on the next article I was reading.
5. What are some of the feedback comments you received on your BAT assessment tasks? Please share your experience of receiving e-feedback.

   Student AR: I received feedback that had so many lengthy paragraphs of comments that I felt overwhelmed. I didn't know where to start in processing and prioritising what changes to make first. I think my tutor was trying so much to help me understand the course articles, but the comments were just too much!
6. How did you feel about the e-feedback comments you received on your BAT assessment tasks?

Student AR: I felt overwhelmed with lengthy feedback comments and disheartened because I received feedback long after the submission date. I found feedback irrelevant because I received it when I had already moved on to other topics.

7. What was your subsequent action after receiving e-feedback on your assessment tasks?
   Student AR: The volume of comments was so heavy, I didn't fully process or integrate them. I just skimmed through thinking I'd already gotten an average mark.
8. Did the e-feedback you received help improve your learning of BAT? Explain.
   Student AR: Balancing multiple paragraphs of feedback was overwhelming. I didn't know where to start in terms of making improvements. So, it didn't help me improve my learning.
9. How do you think your experience of receiving e-feedback could be improved?
   Student AR: Provide feedback comments that are not too much that students can't use. Like, just tell me what I did right, where to improve and how to improve. Feedback that is voluminous and points out a lot of errors is not only overwhelming but difficult to implement.

Semi-structured interview: Student AR

Background questions

1. How did the swift move from face-to-face learning to emergency remote learning affect your learning?

   Student AT: I struggled to stay focused. I procrastinated a lot and wasn't very productive.
2. Did you own any personal technological device? If yes, did you use it for learning? If no, how did you learn and access learning material during ERL?

   Student AT: Yes, I did. I owned a laptop. I used it to attend online classes.
3. Were you able to access all learning resources, including e-formative feedback, through the university's Canvas Learning Management System?

   Student AT: Sometimes I could. But in most instances, I couldn't because I didn't have reliable internet connectivity.

Main questions

4. How long after the submission deadline did you receive comments on your BAT assessment tasks?

   Student AT: Comments on our work were made visible to use two weeks after the submission deadline. But I couldn't access them then due to not having data or internet connectivity. Although I could access feedback, I accessed it long after it was posted on the course portal.
5. What are some of the feedback comments you received on your BAT assessment tasks? Please share your experience of receiving e-feedback.

   Student AT: I received comments like "you did this well…, you could have strengthened your response if you did this…" My tutor's comments gave me directions on how to improve. But I could not access them on time. It was frustrating because even when feedback was finally posted on the e-learning platform, I still couldn't access it immediately due to lack of internet connectivity.
6. How did you feel about the e-feedback comments you received on your BAT assessment tasks?

   Student AT: The feedback I received was motivating because it did not only indicate my errors, it explained how to improve.
7. What was your subsequent action after receiving e-feedback on your assessment tasks?

Student AT: Because I received feedback too late, I just read through it and that was it. I couldn't do anything about it because I accessed it long after it was posted on the course portal.

8. Did the e-feedback you received help improve your learning of BAT? Explain.

   Student AT: It didn't. It could have helped me improve my learning if I was able to access it on time.

9. How do you think your experience of receiving e-feedback could be improved?

   Student AT: I don't know how the delay in accessing feedback on my side could be improved. But there were a few instances where I received feedback that was too much to digest. In this regard, tutors can provide reasonable number of comments to make it less difficult to use them for improvement.

Semi-structured interview: Student BE

Background questions

1. How did the swift move from face-to-face learning to emergency remote learning affect your learning?

   Student BE: The shift motivated me to strengthen independent learning habits rather than relying solely on my lecturers and tutors. I developed better time management skills.
2. Did you own any personal technological device? If yes, did you use it for learning? If no, how did you learn and access learning material during ERL?

   Student BE: Yes, I used my laptop during emergency remote learning.
3. Were you able to access all learning resources, including e-formative feedback, through the university's Canvas Learning Management System?

   Student BE: Yes, I was able to access recorded lectures, resources, submit tasks and get feedback.

Main questions

4. How long after the submission deadline did you receive comments on your BAT assessment tasks?

   Student BE: We got feedback two weeks after the submission deadline. But for big assignments, it took longer.
5. What are some of the feedback comments you received on your BAT assessment tasks? Please share your experience of receiving e-feedback.

   Student BE: I got positive comments like "well done, this is great", when I had done really well. And I got comments like "yes, but what about this and that" when I had missed important points in an article. Although sometimes I received a lot of comments, they helped me so much with revision because I re-read the course articles with a new mindset, based on my tutor's feedback comments.
6. How did you feel about the e-feedback comments you received on your BAT assessment tasks?

   Student BE: I felt okay, just okay.
7. What was your subsequent action after receiving e-feedback on your assessment tasks?

Student BE: When I received voluminous feedback comments, I didn't act upon them all at once. When I revised my coursework for better understanding, I would incorporate some of the comments. Then next time, incorporate the outstanding ones.

8. Did the e-feedback you received help improve your learning of BAT? Explain.

   Student BE: In most instances, it did.

9. How do you think your experience of receiving e-feedback could be improved?

   Student BE: Language ma'am. Tutors should use vocabulary that students can understand. In my case, when I didn't understand the "university vocabulary" used on feedback comments, my parents assisted me. But imagine those who didn't have assistance, it must have been very hard for them.

Appendix B Focus group discussion schedule

1. Did you receive e-feedback comments on your BAT tasks through the university's Canvas Learning Management System during Emergency Remote Learning?
2. How easy or difficult was it for you to access your tutors' comments online? Explain.
3. How easy or difficult was it for you to understand your tutors' comments on your BAT tasks? Explain.
4. Please share some of your experiences of receiving online feedback on your BAT assessment tasks. Include how your experiences made you feel.
5. Let's talk about what you all actually did with the feedback comments you received on your BAT tasks. Did you incorporate them into your remote learning process?
6. Why do you think you rarely used feedback to improve your work and study habits between assignments?
7. Those are really insightful points into why students may disregard assignment feedback, even when tutors intend it to be helpful. How do you think tutors could improve in those areas?

Focus group discussion 1

1. Did you receive e-feedback comments on your BAT tasks through the university's Canvas Learning Management System during Emergency Remote Learning?

Student AZ: Yes, my tutor wrote comments online and then I got an email informing me that there was a comment on my assignment, and then I logged in to check.

Student BC: Yes, I did.

Student BG: For some assignments I did.

Student AJ: Yes ma'am.

Student AC: I was in the deep rural areas and did not have reliable internet connectivity, so I did not receive my tutor's online comments.

2. How easy or difficult was it for you to access your tutors' comments online? Explain.

Student AP: It was difficult at the beginning. But it became easy after a friend showed me where to get comments on my work.

Student AZ: For me, it was not difficult. I just knew where to go to get my tutor's comments.

Student BC: I didn't find it difficult because in high school we used a similar platform to get feedback from our teachers.

Student AR: It was not difficult because the email told you to 'click here to view comment'. So, I just clicked, and it took me to my tutor's comment.

Student AC: It was difficult due to not having internet to login and check.

3. How easy or difficult was it for you to understand your tutors' comments on your BAT tasks? Explain.

Student AA: It was difficult in cases where my tutor underlined words and sentences in my work without further explanation. I didn't understand whether she agreed or disagreed with the underlined points/responses.

Student BF: English is my third language, so I found it difficult to understand the comments I received online because my tutor used unfamiliar words that I found difficult to understand.

Student AE: I received comments like, "well done on completing the task". Nothing about what I did wrong or what I did right, just that, "well done on completing the task". I got a sense that my

tutor was happy that I completed the work, but the comment did not help me understand whether I was on the right track or not.

Student AD: For this one assignment my tutor wrote, “next time pay attention to finer details of the questions to improve your results”. I had failed this specific task. I did not understand what that even meant. Was I not reading the questions correctly? I wished my tutor’s feedback could tell me exactly what I was doing wrong!

Student AA: I remember getting a comment that read, “A little more effort can improve your marks”. And I was like huh? …which section required effort? What more could I have done? My tutor’s comments were really difficult to understand.

Student AZ: My tutor used emojis ma’am. Like a smiley face or a sad face. I never understood what that meant. This didn’t help me understand if I was progressing well or not. Or what to do next to improve.

Student BB: My tutor used difficult vocabulary like “It is evident that you did not read the article thus, you have hindered your own epistemological access”. So, it’s almost always impossible to understand his comments.

4. <u>Please share some of your experiences of receiving online feedback on your BAT assessment tasks. Include how your experiences made you feel.</u>

Student BB: I always received feedback that didn’t tell me my errors and how to fix them. During emergency remote learning, we needed feedback that would help us improve our academic competence. So, if feedback didn’t specify your rights and wrongs, and how to fix those wrongs, then you couldn’t use it in your learning or when you did revisions or prepared for exams. This made me so frustrated.

Student AJ: I remember when most of us received the same comment; “Good job on completing this task”. I thought it was unfair for the whole group or for most of us to get the same comments, especially when our marks were not the same. Personally, I wanted feedback that was specific to my own work as this would show that the tutor saw my efforts. Also, I couldn’t use such feedback when I was revising because it was not specific to my own learning progress. You can imagine the frustration ma’am. The stress of not knowing what to do to produce an improved response in future.

Student AP: Yeah, just getting a comment that you completed a task made me feel frustrated.

Student AE: And there was no opportunity to get clarification. I was always left overanalyzing comments rather than understanding where I actually need to improve.

Student BJ: For me, it was getting feedback long after the submission deadline. I got really anxious waiting to get feedback through the online portal. The anticipation stressed me out.

Student AS: And getting negative comments on your work, especially when you didn't do well.

Student BG: For me, the isolation made negative feedback hurt more. Not being in a classroom where you could see your peers also struggling made me feel like I was the only one not meeting expectations.

Student AR: I totally get that. I've cried a few times after reading negative comments at home. If I was in a classroom, at least my peers would be around to commiserate. Feeling alone with harsh criticism is the worst.

Student BJ: Yeah, plus there's no softening negative feedback in person or reading body language. It's just words on a screen critiquing your work. It feels very cold and stark.

Student AD: My experience was that when my marks were higher, I received feedback that confirmed that my work was good. Although I liked that, I also wanted to know my mistakes so that I could fix them. It was stressful not knowing what you were doing wrong and how to improve.

Student AU: I agree with you. My tutor's comments on my work didn't offer suggestions for improvement. If they did, I would be able to study more independently. Emergency remote learning required one to be able to study on their own. If feedback comments offered suggestions for improvement, I'd be able to use them when I studied or revise BAT coursework.

5. Let's talk about what you all actually did with the feedback comments you received on your BAT tasks. Did you incorporate them into your remote learning process?

Student BJ: I'll be honest - after I looked at my marks, I didn't really look back at the comments when I worked on another task. Maybe I should have, but I didn't.

Student AA: Yeah, the comments didn't stick with me. I just quickly read through them. But by the time I studied or worked on the next task, I barely remembered what feedback was given.

Student AE: I focused on the mark I got for a task because I got it very clear in my head how I was doing, like whether I was passing or failing.

Student AD: I was worried about failing at the end of the year. So, when I got feedback, I only looked at the mark to see how I was doing. If my mark was higher, I felt content and if it was low or if I failed the task, I felt less keen to learn.

Student BB: I think I fell into the trap of thinking that because I got a good mark, I didn't need to adjust anything for next time. The mark validated that my way of doing things worked.

Student BF: That's me too! As long as my performance kept getting over 50's, I figured I could just keep approaching assignments the same way. The comments kind of faded into the background.

Student AP: When I didn't understand my tutor's comments because of the complexity of the language used, I asked someone at home to help me.

Student BC: After reading comments on my work, I reflected on what I could have done differently to improve my performance.

6. Why do you think you rarely used feedback to improve your work and study habits between assignments?

Student AJ: I did not know what to do when my tutor inserted question marks or emojis on my work. So, I did not use such feedback in my remote learning.

Student AS: I've gotten feedback that was just really vague and confusing. Like the comments didn't align with the mark I got or provided any specifics on how to improve. So those kinds I just ignored since they didn't give me any direction.

Student AR: For me it was often a timing issue. We got feedback weeks after the submission deadline. By then, I had already completed more work. Late feedback was hard to apply retroactively at that point.

Student BB: Yeah, I agree. I received feedback three weeks after submitting a task. It didn't help me much with improving my performance because it came too late when there wasn't much I could do to improve my performance in future learning tasks.

Student BJ: I dismissed any feedback that feels overly critical or harsh in tone. Constructive criticism is one thing, but I've gotten some biting remarks before that just immediately turned me off from taking the comments seriously.

Student AP: When I read my tutor's comments on my work, I didn't end up knowing what I was good at because the feedback only told me about my errors, especially when I had failed.

Student AE: Yes, negative feedback just activated my defensiveness! I'd find ways to rationalise why my tutor was wrong rather than hearing what I needed to change. It was hard when emotions got wrapped up in it.

7. Those are really insightful points into why students may disregard assignment feedback, even when tutors intend it to be helpful. How do you think tutors could improve in those areas?

Student AZ: Be as specific as possible and really tailor comments to the individual's work. Vague, generic remarks won't help.

Student BG: Quicker turnaround would keep the feedback relevant!

Student AA: And focus on encouraging rather than overly critical remarks. It goes such a long way.

Focus group discussion 2

1. Did you receive e-feedback comments on your BAT tasks through the university's Canvas Learning Management System during Emergency Remote Learning?

Student AB: Yes

Student AW: Yes ma'am, I did.

Student AG: Yes, my tutor gave us feedback on our assessment using the course portal.

Student BH: Yes

2. How easy or difficult was it for you to access your tutors' comments online? Explain.

Student AX: I was in the deep rural areas where there was bad internet signal, so I couldn't access the e-formative feedback.

Student AI: I didn't have a printer at home and found it really hard to thoroughly read and understand voluminous comments just reading on my tiny phone screen. It gave me headaches trying to scroll through pages.

Student BE: I had a computer, and with the help of my parents, I could check feedback and if I didn't understand the "university vocabulary" used on feedback comments, my parents broke it down for me.

Student AY: My internet connectivity at home was super unreliable. A few times I tried downloading marked assignments from the course portal to review the feedback but kept losing the connection before they would download fully.

Student AK: As an older student who didn't grow up with a lot of technology, I struggled to access some file formats the feedback was given in. I just didn't have the skills to navigate the course easily so some comments I couldn't even access.

Student AL: I didn't know how to navigate through the e-learning platform, and so I couldn't check feedback. So, I never knew where I went wrong and what I needed to do to improve in my next task.

Student AH: I didn't expect that checking feedback on my work would be that difficult. In high school it wasn't that much of a hustle to check feedback. So, I thought it would be the same. It was frustrating because I could log in but didn't know where to go to check or find feedback on my BAT work.

Student AO: I didn't have a laptop for quite some time, so I could not access e-formative feedback.

Student AF: I couldn't check feedback online because I did not have a laptop or a smartphone. The university offered laptop loans, but I could not come to campus to get a laptop due to the travel restrictions during lockdown level five.

3. Those definitely sound like real barriers. Beyond accessing the initial feedback, did technology also make it hard to apply the feedback to improve subsequent work?

Student AI: Absolutely, especially as files accumulated. My phone storage got used up quickly. I had to keep deleting feedback on old assessments to download new ones.

Student AY: With unreliable internet connectivity, I couldn't always view previous feedback to help guide new assignments and build on those suggestions for improvement.

4. How easy or difficult was it for you to understand your tutors' comments on your BAT tasks? Explain.

Student BH: As a student whose home language is not English, when feedback wasn't provided in very simple, non-idiomatic language, it was nearly impossible for me to interpret on my own without being able to ask for clarification.

Student AT: It was difficult because my tutor's comments were very abstract or in complex language. I struggled to grasp what specifically I should improve.

Student AK: I've received some feedback where the remarks were just very vague like "watch your analysis" without elaborating where my analysis fell short. Without specifics on what didn't meet expectations, the feedback alone didn't help me improve.

Student BH: I agree, I need very detailed and concrete suggestions in order to understand and apply feedback to subsequent assignments. The broad comments I received were not helpful.

5. Please share some of your experiences of receiving online feedback on your BAT assessment tasks. Include how your experiences made you feel.

Student AV: The timing was always awful. I once got feedback 3 weeks later, after the next task was already due. It made the comments kind of useless at that stage.

Student AT: I received feedback that was not specific to my work and my progress which didn't help me learn during emergency remote learning. Getting the same comment even when marks were different was frustrating.

Student AN: I've received feedback written in such dense academic language that I did not understand what specific action my tutor wanted me to take. This was so frustrating.

Student AI: For me it's the lack of depth and specificity. I've gotten one-word comments like "expand" without elaboration on what exactly to expand on or how. The vagueness made improvement really difficult.

6. Let's talk about what you all actually did with the feedback comments you received on your BAT tasks. Did you incorporate them into your remote learning process?

Student AQ: During emergency remote learning, I received feedback when it was too late to do anything about it.

Student AK: Honestly, the sheer volume of feedback comments I sometimes received was overwhelming. When there were paragraphs of notes, critiques, and suggestions on my assessment response, I didn't even know where to start. It felt too extensive to process and act on.

Student AW: I received feedback late, so I couldn't do anything about it. I just read it, that's it. But if I received it immediately after submission, not immediately-immediately, but like two to three days after submission, when I could still remember the contents of the task, then I would be able to use it to fix my mistakes.

Student AG: For me, when I got really critical, blunt feedback, I got an emotional gut reaction first. Comments that felt like personal attacks rather than constructive criticism automatically made me disregard the feedback out of feeling wounded or indignant.

Student AB: Lack of specificity in the feedback caused me to dismiss a lot of comments. If it wasn't clear what exactly I should modify, I often didn't know how to apply feedback comments to future work.

Student AN: I think sometimes we just lacked feedback literacy on our end too in terms of digesting comments and self-assessing. Without training on how to interpret and self-reflect, a lot of us missed the value of critical feedback.

7. All definitely very real obstacles for utilising the feedback. Beyond those reasons in the moment, did the delay in timing receiving feedback also cause issues with application?

Student AW: Absolutely! By the time I got feedback on my work I was already disengaged from that material and focused on new course units. My mindset had moved on so reflecting retrospectively required more effort. Immediacy would help with relevance and follow through.

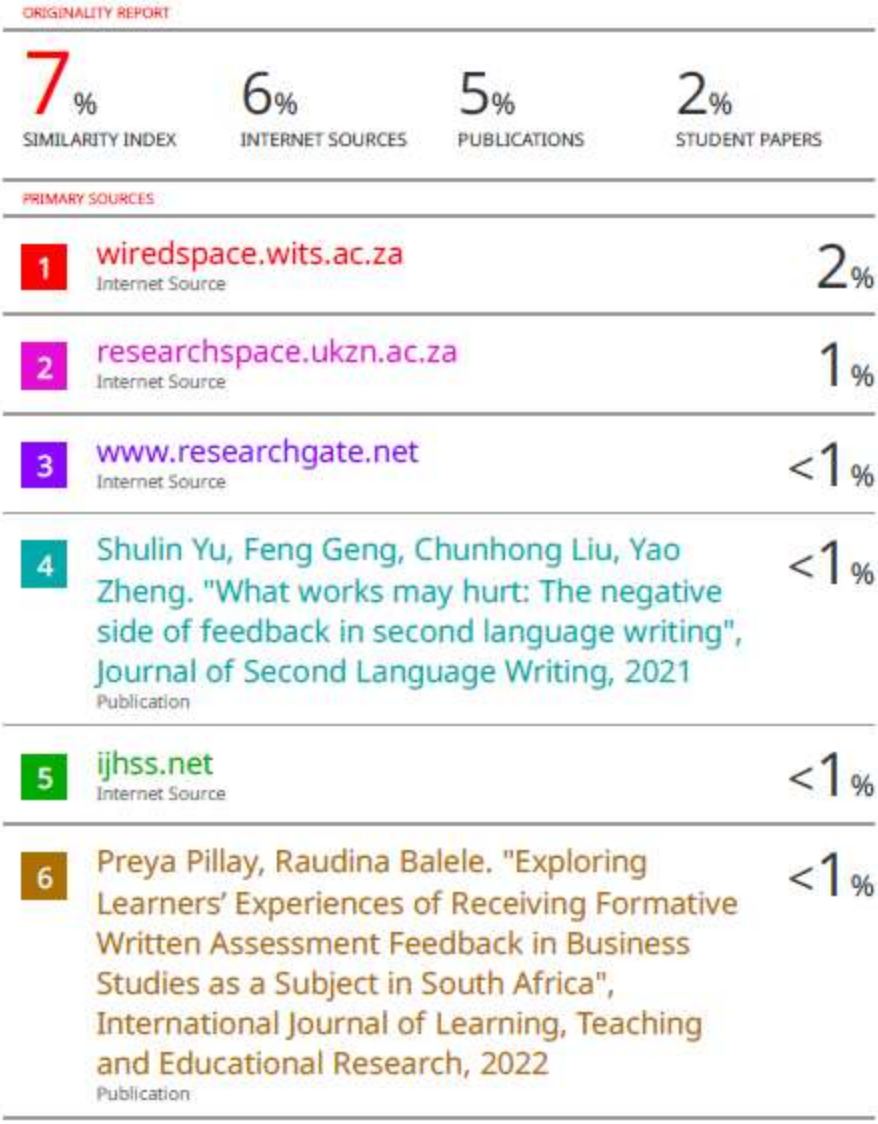
8. Those are really insightful points into why students may disregard assignment feedback, even when tutors intend it to be helpful. How do you think tutors could improve in those areas?

Student AN: Offer to meet over Zoom or set up a discussion forum to clarify language issues.

Student AQ: Use less jargon and relate comments directly to assignment requirements.

Student AB: Be as specific as possible with guidance for where and how students can improve their academic writing and analysis.

Appendix C: Plagiarism Report



ORIGINALITY REPORT

7%	6%	5%	2%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	wiredspace.wits.ac.za Internet Source	2%
2	researchspace.ukzn.ac.za Internet Source	1%
3	www.researchgate.net Internet Source	<1%
4	Shulin Yu, Feng Geng, Chunhong Liu, Yao Zheng. "What works may hurt: The negative side of feedback in second language writing", Journal of Second Language Writing, 2021 Publication	<1%
5	ijhss.net Internet Source	<1%
6	Preya Pillay, Raudina Balele. "Exploring Learners' Experiences of Receiving Formative Written Assessment Feedback in Business Studies as a Subject in South Africa", International Journal of Learning, Teaching and Educational Research, 2022 Publication	<1%

Appendix D Ethical clearance certificate



Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)
R14/49 Simelane

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER: H23/03/05**
PROJECT TITLE	Exploring students' experiences of receiving e-formative feedback during Emergency Remote Learning: A case study of first-year students at a teacher education university in South Africa
INVESTIGATOR(S)	Mrs R Simelane
SCHOOL/DEPARTMENT	School of Education/
DATE CONSIDERED	17 February 2023
DECISION OF THE COMMITTEE	Approved Risk Level: Minimal
EXPIRY DATE	08 May 2026
DATE 09 May 2023	**CHAIRPERSON** _____ (Professor J Watermeyer)

cc: Supervisor : Professor P Pillay

Appendix E Editor's certificate

Registered with the South African Translators' Institute (SATI)

Reference number 1000686

25 June 2024

EXPLORING STUDENTS' EXPERIENCES OF RECEIVING E-FORMATIVE FEEDBACK DURING EMERGENCY REMOTE LEARNING: A CASE STUDY OF FIRST YEAR STUDENTS AT A TEACHER EDUCATION UNIVERSITY IN SOUTH AFRICA

This confirms that I edited substantively the above document, including a Reference list. The document was returned to the author with various tracked changes to correct errors and clarify meaning. It was the author's responsibility to attend to these changes.

Yours faithfully



Dr. K. Zano

Ph.D. in English

kufazano@gmail.com/kufazano@yahoo.com

+27631434276