



FACULTY OF EDUCATION

STUDENTS' DEVELOPMENT OF RESILIENCE IN ADAPTING TO REMOTE LEARNING: THE CASE OF A FIRST-YEAR MODULE

by

Enna Moroeroe

[Student number: 2004115982]

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Supervisor: Dr W. Botes (SPU)
Co-supervisor: Dr S.M. Holtzhausen (UFS)

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DECLARATION

I, Enna M. Moroeroe, declare that the thesis, **STUDENTS' DEVELOPMENT OF RESILIENCE IN ADAPTING TO REMOTE LEARNING: THE CASE OF A FIRST-YEAR MODULE**, submitted for the qualification of Master of Education in Higher Education Studies in the School of Curriculum Studies and Higher Education Studies at the Faculty of Education at the University of the Free State is my independent work.

All the references I have used have been indicated and acknowledged employing complete references.

I further declare that I have not previously submitted this work to another university or faculty to obtain a qualification.

Enna Moroeroe

SIGNED

November 2022

DATE

ABSTRACT

Through the Resilience Theory view, this study investigated the experiences of students' developmental resilience in a first-year module while adapting to a remote-learning approach. This theory offers a framework for identifying phenomena that downplay students' academic success while suggesting coping and supportive mechanisms to foster students' academic success. Through a qualitative research approach, this intrinsic case study research design captured the rich subjective experiences of 12 first-year students as they navigated their academic journey through remote learning (i.e. during a time of a pandemic) in the Faculty of Education (FoE) at the University of the Free State (UFS). Employing a qualitative questionnaire survey, a focus-group discussion, and a reflective drawing exercise as data collection techniques allowed for generating empirical data that amplified the participants' experiences. Findings from the study suggest that the first-year students' developmental resilience for academic success was shaped through **a variety of personal beliefs, hardiness to succeed, enhanced emotional insight, the ability to learn and reflect, the use of personal coping mechanisms and a sense of optimism**. On the other hand, the students' developmental resilience to succeed academically also relied on their **ability to regulate negative emotions while nurturing relationships with their peers and module lecturer**.

Keywords: resilience development, first-year students, higher education support interventions, remote-learning experiences

DEDICATION

I dedicate this study to my late Mom, Rachel R. Assegai, who taught me that I could do all things through Christ, who strengthens me. Also, my husband, Albert Moroeroe, and two daughters, Tiisetso and Thato Moroeroe, for their unconditional support and love during this highly challenging journey.

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LIST OF ACRONYMS

Col	Community of Inquiry
FoE	Faculty of Education
HEI's	Higher Education Institutions
LMS	Learning Management Systems
P	Pseudonym
PRQ	Primary research question
SCR	Secondary research question
SPU	Sol Plaatje University
UFS	University of the Free State

CHAPTER 1:

ORIENTATION OF THE STUDY

1.1 INTRODUCTION AND BACKGROUND TO THE STUDY

The Covid-19 pandemic affected the design and delivery of educational course material within the academic space on a global scale (Corbera et al., 2020). On 17 March 2020, the Minister of Higher Education, Science and Technology announced that all South African Institutions of Higher Education temporarily had to close their on-campus programmes and academic activities due to the Covid-19 pandemic outbreak (Business tech, 2020). This sudden closure of on-campus programmes and academic activities meant that the traditional and commonly accepted face-to-face mode of academic delivery had to transition to a remote, online learning approach (Carrillo & Flores, 2020). This study investigated how students developed resilience in a first-year module in adapting to a remote -learning approach.

Some researchers claim that this transitional process resulted in psychological distress that required of students to display developmental resilience to succeed in their academic projects (Hugo, 2021; Taylor et al., 2020). Developmental resilience, within the context of students' academic success, is viewed differently by scholars in higher education. Decades ago, Howard and Johnson (2000) viewed developmental resilience as the ability of a student to cope and adapt, despite facing challenging or difficult circumstances. Scholars such as Sanagavarapu, Abraham and Taylor (2019) and Pretorius (2021) more recently added their understanding of the concept of the optimal functioning of students' academic progression throughout traumatic experiences. Drawing from these views, one could assume that developmental resilience deals with the ability of students to recover their academic progression during adversity. Adversity, in the context of this study, can be regarded as the shift from traditional, face-to-face learning and teaching to a remote-learning approach.

Students' demonstration of developmental resilience in remote learning is essential for the following reasons. In the first instance, the remote-learning approach challenges

students' developmental resilience by remaining motivated and committed to self-study in isolation (Taylor et al., 2020). Furthermore, the remote-learning approach challenges students to develop resilience in accessing and navigating multiple online learning platforms. This approach, whereby students constantly try to cope and adapt to the “new normal” – referred to as remote learning – informs students' developmental resilience (Hugo, 2021). Therefore, the deduction can be made that the remote-learning approach requires of students to demonstrate developmental resilience to ensure academic success (Carrillo & Flores, 2020).

Given the importance of students demonstrating developmental resilience, particularly during the Covid-19 pandemic, the expectation from both an international (Taylor et al., 2020) and a national (Pretorius, 2021) perspective was that institutions of higher education initiate the supportive mechanisms deemed necessary to bolster students' developmental resilience during a remote-learning experience. These scholars reason that developmental resilience would be nurtured with effective institutional academic support mechanisms in place, which, in turn, might foster students' academic success (Pretorius, 2021; Taylor et al., 2020).

Little is known about how students experienced the shift to remote learning, specifically within the context of the Faculty of Education (FoE) at the University of the Free State (UFS), throughout the pandemic. The lack of knowledge regarding students' experience with the shift to remote-learning is viewed as an issue, since these experiences would justify the effectiveness of current institutional support interventions offered by the UFS. Against this background, I was interested in uncovering how students from the FoE at the UFS developed resilience during a remote-learning approach. Therefore, this study aims to explore students' development of resilience in a first-year module in adapting to a remote-learning approach. (More about this in chapters 3 and 5.)

This chapter starts by presenting the statement of the problem (1.2). Thereafter, the theoretical framework (1.3), research questions (1.4), the aim and objectives (1.5), research design and methodology (1.6) of the study are discussed. The data analysis, interpretation and reporting (1.7), value of the study (1.8), and the ethical considerations

(1.9) are unpacked. The chapter concludes with discussions on concept clarification (1.10) and a summary of the chapter (1.11).

1.2 STATEMENT OF THE PROBLEM

The Covid-19 pandemic affected the design and delivery of educational course material within the academic space on a global scale (Corbera et al., 2020). An international study by Aristovnik et al. (2020) describes how the shift from traditional, face-to-face teaching and learning affected students' academic success at universities in the United Kingdom negatively. On a national level, the effect of Covid-19 also had implications for teaching and learning at institutions of higher learning (Ferreira, Buttell & Cannon, 2020). For example, due to the implemented lockdown regulations, the University of the Free State (UFS) transitioned its academic project to an online, remote-learning platform. With the implications of the Covid-19 lockdown regulations in mind, the transition from the traditional face-to-face teaching and learning model to an online, remote-learning approach changed the way students perceived and engaged with aspects of teaching and learning from both an international university (Aristovnik et al., 2020) and a national university perspective (Ferreira et al., 2020).

Given this rapid transition to an online, remote-learning approach, the expectation was that higher education institutions would initiate academic support mechanisms to foster students' developmental resilience during a remote-learning experience (Aristovnik et al., 2020; Carrillo & Flores, 2020). However, given the expectation that HEIs had to initiate academic support mechanisms, little was known about how students experienced the shift to remote learning at the FoE at the UFS during the pandemic. The unavailability of information on students' experiences was viewed as an issue, since these experiences would justify the effectiveness of current institutional support interventions offered by the UFS. The student experiences of remote learning would also clarify whether the support interventions assisted students in developing resilience for a remote-learning experience. McIntosh and Shaw (2017) add that the developmental resilience of students is vital, since a strong correlation exists between student resilience and the academic success of students. With this argument in mind, I was interested in investigating how students

developed resilience in adapting to a remote-learning environment in a first-year module in the FoE at the UFS.

1.3 THEORETICAL FRAMEWORK FOR THE STUDY

A theoretical framework can be viewed as “a general theoretical system with assumptions and concepts” (Lawrence, 2014:85). A theoretical framework serves as a lens through which the researcher analyses phenomena, draws connections, and makes predictions within a study (Lawrence, 2014). Creswell and Creswell (2017) add that using a theoretical framework is key to advancing knowledge in educational research. Given this understanding, the theoretical framework considered for this study was Resilience Theory. Over the past few decades, the use of Resilience Theory has increased in popularity in higher education research (Greene, Galambos & Lee, 2004; Patterson & Kelleher, 2005; Van Breda, 2018). For example, Van Breda (2018) reasons that Resilience Theory can be helpful in unravelling student experiences on their journey towards achieving academic success in tertiary education. On the other hand, Young, Roberts and Ward (2019) claim that the use of Resilience Theory comes in handy to provide a more informed understanding of the factors that influence students' academic success (Young et al., 2019).

With a focus on student academic success, Resilience Theory suggests a framework that is particularly helpful for identifying phenomena that hinder students' academic success while exploring the types of coping and supportive mechanisms that inevitably result in student academic success (Young et al., 2019). Patterson and Kelleher (2005) claim that Resilience Theory is underpinned by three core phases, namely the “deteriorating phase”, the “adapting phase,” and the “recovering phase”. The “deteriorating phase” is a temporary phase that depicts an individual's despair and lack of hope due to individual issues encountered within a specific environment (Patterson & Kelleher, 2005). The deteriorating phase is also known as the level of socio-emotional deterioration that an individual undergoes due to adversity caused by a social phenomenon (Young et al., 2019). The “adapting phase” is characterized by the individual's ability to “bounce back” by overcoming adversity through personal intervention, action, and reliance on supportive

mechanisms. Finally, the “recovering phase” deals with how an individual encounters personal growth due to adversity (Patterson & Kelleher, 2005). The authors add that the interconnectedness of these phases is key to strengthening an individual’s resilience (Patterson & Kelleher, 2005).

Within the context of this study, the conceptual understanding of Resilience Theory with its underpinning three phases, is identified as the deteriorating, adapting and recovering phases. It was crucial to investigate how students developed resilience in adapting to a remote-learning environment in a first-year module in the FoE at the UFS (cf. 6.5).

1. More specifically, with the “deteriorating phase” in mind, the researcher sought to uncover the students’ experiences of adversity during the sudden shift from on-campus learning to remote learning (cf. 6.5.1 & 6.5.2).
2. In the second instance, the “adapting phase” helped one understand whether the institutional academic support interventions at the UFS were instrumental in supporting the developmental resilience of students, which enabled them to “bounce back” during the early stages of remote learning (cf. 6.5.3).
3. Finally, the “recovering phase” allowed the researcher to report on the student’s level of personal growth throughout the remote-learning experience (cf. 6.5.4).

The students’ rich, subjective experiences shed light on the issues they encountered and the supportive coping mechanisms that impacted their academic success.

1.4 RESEARCH QUESTIONS

The following primary research question guided the study: How did students develop resilience in adapting to a remote-learning environment in a first-year module?

To respond to the primary research question, the following secondary research questions were considered:

- How is resilience conceptualized within a remote-learning, higher education context? (cf. chapters 2 & 3).

- How do the students experience remote learning within the first-year module (cf. chapter 5).
- Which strategies can the FoE incorporate to assist students with remote learning (cf. chapter 5)

1.5 THE AIM AND OBJECTIVES OF THE STUDY

The study aimed to investigate students' development of resilience in a first-year module in adapting to a remote-learning approach. Thus, the study was guided by the following objectives that realised the aim of the study, namely to:

- Determine how resilience is conceptualized within a remote-learning, higher education context through a literature review (cf. chapters 2 & 3).
- Obtain insights through qualitative questionnaire surveys, focus-group discussions, and reflective drawing exercises on students' experiences with remote learning within a first-year module (cf. chapters 2, 3, 4 & 5).
- Explore strategies the FOE can incorporate to assist students with remote learning (cf. chapter 5).

1.6 RESEARCH DESIGN AND METHODOLOGY

This section provides an overview of the research approach and methodology that underpin the study's research design. Both the research approach and methodology are briefly outlined (cf. 1.6.1-1.6.5).

1.6.1 Research approach

This study applied a qualitative research approach that allows the researcher to use a systematic inquiry to investigate a social phenomenon (Teherani et al., 2015; Grossoehme, 2014). This phenomenon, amongst other things, might include individuals' lived experiences within a societal context. DeJonckheere and Vaughn (2019) add that using qualitative research allows the researcher to make meaning of an individual's lived experiences within society.

In this study, using a qualitative research approach allowed the researcher to make meaning of the diverse student experiences of their journey towards adapting to a remote-learning approach. This benefit of the qualitative approach aligns well with McCusker and Gunaydin's (2015:537) view when they state that “a qualitative research approach allows the researcher to understand the experiences and attitudes of individuals”. Additionally, the use of a qualitative research approach in this study assisted the researcher in making meaning of the rich, authentic experiences and attitudes of students. At the same time, they navigated spaces that required of them to adapt and recover from the adversity caused by the pandemic.

1.6.2 Research paradigm

Myers and Avison (2002, in Rahi, 2017), advise researchers to locate their research within a research paradigm. The term “research paradigm” is understood as the shared beliefs of scholars and the common understanding of a research problem (Creswell & Creswell, 2003). Given this understanding of a research paradigm, this study was informed by an interpretivist paradigm.

The interpretivist paradigm views reality as multi-layered and complex, and a single phenomenon can have multiple interpretations (Creswell & Creswell, 2003). An interpretivist paradigm focuses on individuals' subjective experiences in a research study (Rahi, 2017). Myers and Avison (2002) add that the interpretivist paradigm allows the researcher to consider a more contextual and humanized approach to uncover human experiences regarding a particular social phenomenon. In this study, the interpretivist paradigm was vital to uncover the complex student experiences while they engaged in the remote-learning process during the Covid-19 pandemic.

1.6.3 Research design

This qualitative study was informed by an intrinsic case-study research design. Lawrence (2014) believes that intrinsic case-study research seeks to investigate a case by focusing on various details. Furthermore, an intrinsic case-study research design provides “a written description of a problem or a situation”, and it focuses on a particular matter or

'case' (Rahi, 2017:3). In this study, the case included 12 Bachelor of Education students in a first-year module in the FoE at the UFS and their experiences towards the shift from the traditional face-to-face learning environment to a remote-learning environment.

1.6.4 Data collection methods

Data collection refers to gathering information from relevant sources to answer the research questions and solve the research problem (Wilson & Fox, 2013). In this study, data were generated and captured from 12 student teachers, hereafter referred to as the study's participants, from the FoE at the UFS. The qualitative data generated were collected by means of a variety of data collection methods. Mertens (2014) believes that using various data collection methods would enable the researcher to respond to the study's primary data collection methods used to generate and capture verbal qualitative data included a semi-structured, qualitative questionnaire survey and a focus-group discussion. The purpose of the focus-group discussion was to address possible data limitations that the semi-structured, qualitative questionnaire survey presented, namely to gain more detailed information, or fill gaps in the information. These limitations included short answers to qualitative questions from respondents that required probing by the researcher.

In addition, non-verbal data were generated through a reflective drawing exercise that captured the participants' experiences of how they viewed their experiences with remote learning. In creating these reflective drawings, the participants also had the opportunity to interpret their drawings, thus providing a rich reflection on how they viewed the shift to a remote-learning approach. The researcher also liaised with the principal of the Department of Social Sciences and Commerce Education in the Faculty of Education to identify a suitable lecturer that would assist the researcher to identify students as participants in the study. Annexure A outlines the predetermined questions that were posed to the research participants in the semi-structured, qualitative questionnaire questions.

1.6.5 Selection of research participants (sampling)

Sampling refers to the detailed studying of various cases and linking what was discovered with the larger population (Lawrence, 2014). Etikan, Musa and Alkassim (2016) define sampling as selecting a portion of a population to study. Various sampling methods exist, such as snowball sampling, judgement or purposive sampling, and convenience sampling (Hanif, Shahbaz & Ahmad, 2018). A purposive sampling approach was considered (Emmel, 2013). Purposive sampling involves selecting unique, information-rich cases (Lawrence, 2014). Purposive sampling was applied to this study, since it provided grounds for in-depth studies (Benoot, Hannes & Bilsen, 2016).

In this study, the purposive sampling entailed selecting 12 students in a first-year module from the Department of Social Sciences and Commerce Education in the FoE at the UFS. This group consisted of first-year students studying the first-year module remotely during the Covid-19 pandemic. The researcher deemed this category of students to be the best suited for providing rich and relevant data to the study.

1.7 DATA ANALYSIS, INTERPRETATION AND REPORTING

Data analysis is a process whereby the researcher determines patterns, themes, or recurrences from the data collected (Cohen, Manion & Morrison, 2017). The qualitative data generated from the semi-structured, qualitative questionnaire survey (cf. Appendix B) and the focus-group discussion were analysed employing thematic content analysis. Thematic content analysis refers to grouping data into themes or patterns and presenting or reporting these patterns or themes in a written format (Maguire & Delahunt, 2017; Braun & Clarke, 2006; Vaismoradi et al., 2016). On the other hand, the reflective drawing exercise was also used to strengthen the data collected from the semi-structured, qualitative questionnaire survey and the focus-group discussion. Reflective drawing exercises refer to drawing to express and reflect on a lived experience (Calvo, 2017).

The following sequential steps (cf. 1.7) were taken by analysing the data (Creswell & Creswell, 2017). The data were organized and prepared for analysis, after which transcribing the focus-group discussion verbatim by the researcher followed. Verbatim

transcribing refers to the word-by-word typing of the recorded audio data (McGrath, Palmgren & Liljedahl, 2019). Pseudonyms (P1, for example) were assigned to participants to ensure anonymity. Afterwards, the transcriptions were read a few times by the researcher to get an overview and better understanding of the data. Coding was then done by categorizing the raw data into different themes (Lawrence, 2014). Lester, Cho and Lochmiller (2020) define coding as assigning a “short, descriptive word or phrase” to data. Colour coding was used, where similar responses from participants were coded with the same colour. Colour coding is also referred to as searching for themes and sub-themes (Braun & Clarke, 2006). Data were grouped according to each relevant theme using the cut-and-paste function in Microsoft Word.

Themes were reviewed to see whether some themes could be combined into one broad theme (phase 1). The themes were then analysed to determine whether the themes were a true reflection of the data generated by the two research questions of the study (phase 2). Finally, the researcher produced a narrative of the thematic analysis to convince the reader of the validity and merit of the analysis. Creswell and Creswell (2017) deem it essential for the researcher to tell a compelling story by arguing against the backdrop of the research questions posed. Annexure B provides evidence of the verbatim data offered by the study.

1.8 VALUE OF THE RESEARCH

My aim with this study was to investigate the students' experiences regarding their development of resilience in studying the first-year module while adapting to a remote-learning approach. These experiences were valuable for the FoE, as they justified the effectiveness of current institutional support interventions offered by the UFS. The student experiences of remote learning also clarified whether the support interventions offered assisted students in developing resilience for a remote-learning experience. In the study's findings, other forms of institutional support interventions identified by participants were also proposed.

1.9 ETHICAL CONSIDERATIONS

Ethical clearance was obtained from the UFS ethics committee. (UFS-HSD2021/1452/21). Permission to conduct the study in the FoE was also sought from the Principal of the Department of Department of Social Sciences and Commerce Education. Lawrence (2014) explains that ethics is key to the moral nature of research and that a researcher should always protect the identity of the participants and not cause any harm. Given this call, the researcher considered the following principles to ensure that the rights of participants were protected:

- Participants' consent was sought by them signing a consent form (cf. Appendix C) before the research was conducted or data were reported.
- Participants were informed that their participation in the study was voluntary and that they could withdraw from the study at any point during the focus-group discussion.
- Participants were also ensured during the focus-group discussion of their right to refrain from answering a question if they felt uncomfortable.
- The objectives of the study, as well as the background of the research, were explained to the participants in writing and verbally.
- Pseudonyms were given to the participants during transcribing to ensure that anonymity and identity were protected.
- The data are stored on a password-protected laptop that only the researcher can access for a minimum of five years.
- Participants were not subjected to abuse, embarrassment or stress during the interviews.
- Participants were at all times treated with respect and honesty by the researcher.
- covid-19 protocols were followed during the face-to-face focus group discussion.

1.10 CONCEPT CLARIFICATION

The following terms needed clarification because of the particular interpretation in the context of the study (cf. chapters 2 and 3 for full details) and to inform the reader of concepts and definitions.

- 1.10.1 Remote teaching and learning take place across distances between lecturers and students. This term is broadly discussed in chapter 2 (cf. 2.2.3)
- 1.10.2. Resilience is viewed as the capacity of an individual to adapt to stressful situations or disruptions. Resilience is unpacked in chapter 3 (cf. 3.2.1).

1.11 SUMMARY OF THE CHAPTER

Although developmental resilience in students' success is not new, this study's view incorporates the Covid-19 pandemic's influence on higher education institutions – particularly regarding first-year students' developed resilience. Thus, the chapter started with an introduction and background to the study (cf. 1.1), focusing on how students developed resilience in a first-year module in adapting to a remote-learning approach. After that, the study's problem statement (cf. 1.2) was discussed. Then the researcher outlined the Resilience Theory as a theoretical framework that underpins the study. This Resilience Theory's three phases were justified for this study because of the interconnectedness that strengthens individuals' resilience.

In addition, I explained the research questions (cf. 1.4) and the aim and objectives (cf. 1.5) that steered this study. Through an interpretive paradigm, resilience experiences developed by first-years on the remote-learning approach phenomenon were investigated as a case-study design. Through a qualitative approach (cf. 1.6.1), a case-study design (cf. 1.6.2) to generate data through a semi-structured, qualitative questionnaire survey and focus groups (cf. 1.6.4) with research participants (cf. 1.6.5). Furthermore, I elaborated on the value of the research (cf. 1.8) and the ethical considerations (cf. 1.9) taken into account.

The following chapter focuses on relevant literature perspectives regarding a remote teaching and learning approach in higher education (cf. chapter 2).

CHAPTER 2:

LITERATURE PERTAINING TO A REMOTE TEACHING AND LEARNING APPROACH

2.1 INTRODUCTION

In general, there are debates on challenges students' face when transitioning from high school to HEI's. These challenges according to McMillan (2013); Ajani and Gamede (2020) include for example:

- an increase in workload and academic standard;
- homesickness and loneliness;
- problems with academic writing;
- teaching and learning in English; and
- a lack of computer knowledge or skills.

However, the focus of my study was not on students transitioning from high school to HEIs, but rather on students' development of resilience in a first-year module in adapting to remote learning. These challenges of first years were not addressed in this study; I rather refocused on the additional challenge with regard to Covid-19, with special reference to resilience within a remote teaching and learning approach.

To respond to the stipulated aim (cf. de 1.5), this chapter provides an in-depth review of relevant literature perspectives that deal with remote-learning aspects in higher education. In the first instance, a description of the different approaches to teaching and learning is discussed. After that, the core elements of remote teaching and learning are discussed (cf. 2.3.1). The factors influencing a remote teaching and learning experience in higher education are also elaborated (cf. 2.5). Finally, a summary of the primary literature findings about the remote-learning experience is provided (cf. 2.6).

2.2 APPROACHES TO TEACHING AND LEARNING WITHIN THE CONTEXT OF HIGHER EDUCATION

The focus of this section was to unpack the different teaching and learning approaches adopted by higher education institutions. A closer look at these teaching and learning approaches enabled the researcher to enhance comprehension of their differences. This focus was essential, as it ultimately drew attention to remote teaching and learning experiences.

HEIs radically shifted how teaching and learning unfold in the classroom. Crisol-Moya, Romero-López and Caurcel-Cara (2020) suggest that HEIs have adopted different approaches to teaching and learning over the last couple of decades. An increase in technology-based education forced higher education institutions to change the nature of teaching (Einstein, Godel & Nash, 2001). Some of the most common teaching and learning approaches followed by HEIs are i) the traditional teaching and learning approach; ii) the blended teaching and learning approach; and iii) the remote teaching and learning approach.

These teaching and learning approaches and the theories that underpin them are displayed in Figure 1 below. Each teaching and learning approach (cf. Figure. 2.1) underpinned by its respective educational philosophies will now be described (cf. 2.1.1-2.1.3).

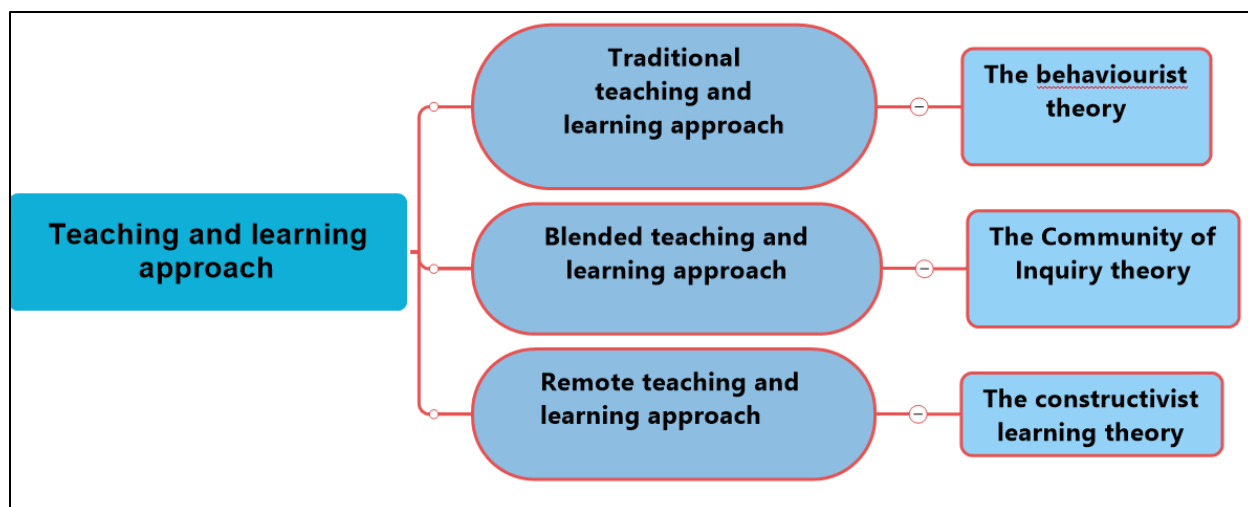


Figure 2.1: Teaching and learning approaches and theories

2.2.1 The traditional teaching and learning approach

The traditional teaching and learning approach is a one-way process whereby lecturers transfer knowledge to students (Ituma, 2011). Hynes (2018) defines this conventional teaching and learning approach as lecturer-centred. The student's role is to remain passive while listening and watching the lecturer (Hynes, 2018). Gargallo-López et al. (2017) have a similar understanding of the traditional teaching and learning approach, whereby the lecturer is considered the central source of knowledge and information. The lecturer transfers knowledge, while the student's task is to reproduce the knowledge (Gargallo-López et al., 2017).

Interestingly, Light, Calkins and Cox (2009) add that the traditional teaching and learning approach discourages students from working independently on tasks or assignments. In addition, students are sometimes discouraged from cooperating with peers during class time (Light et al., 2009). An example of the traditional teaching and learning approach includes writing tests and exams in a physical classroom (Oye, Salleh & Iahad, 2012). Following the conventional teaching and learning approach, the lecturer is perceived as the instructor who conveys all the knowledge, and the quality of learning depends on the lecturer's knowledge and skills (Coman et al., 2020). On the other hand, the student is expected to recall the knowledge conveyed by the lecturer (Saykili, 2019). One can

therefore argue that the role of the student in the traditional teaching and learning approach is to memorize information and recall it in the form of tests or examinations.

One particular learning theory that is considered to inform the traditional teaching and learning approach is the behaviourist theory. This theory focuses on the idea that all behaviours are learned through interaction with the environment (Paramythi & Loidl-Reisinger, 2003). Cranton and Taylor (2012) believe that from a behaviourist perspective, the role of the students is to be acted upon by the lecturer-controlled instructions. In following such an approach, the student is not regarded as an agent in the learning process, but rather an individual who solely receives instruction from the lecturer (Cranton & Taylor, 2012). Following the behaviourist perspective, the teaching and learning environment is categorized by the following events. Firstly, the lecturer often leads class discussions while the students listen silently. Secondly, one also finds that following this approach, the lecturer sets and delivers class activities and awaits students to complete the class activities. Finally, the lecturer is regarded as the sole figure in giving feedback while the students listen.

2.2.2 The blended teaching and learning approach

The blended teaching and learning approach combines traditional teaching and learning and remote learning (Ituma, 2011). Interestingly, Bonk and Graham (2012) have a similar understanding of blended teaching and learning approaches. They define it as a combination of face-to-face instruction and computer-mediated learning (Bonk & Graham, 2012). Garrison and Kanuka (2004) define blended teaching and learning as the integration of face-to-face learning experience and online learning experience. Graham, Allen and Ure (2005) add that blended teaching and learning combine various delivery methods.

An example of the blended teaching and learning approach is when students complete assignments in a remote or online learning environment. Following the blended teaching and learning approach, the lecturer is perceived as the mentor. On the other hand, a student is regarded as an active participant in the learning process. Therefore, one can

argue that the student's role in the blended teaching and learning approach is participating in the teaching and learning process (Gedik, Kiraz & Ozden, 2013).

The blended teaching and learning approach is informed by the Community of Inquiry (CoI) theory, to name but one. According to Rajkoomar and Raju (2016:3), the CoI theory "guides the use of instructional technologies in creating and sustaining deep and meaningful learning through reflection and discourse in online and blended learning environments". Following the CoI approach, the student takes responsibility for his/her learning and is regarded as an active participant in the blended learning environment (Watson, 2008). On the other hand, the lecturer is considered a mentor for students in self-development (Kassymova et al., 2018).

2.2.3 The remote teaching and learning approach

Remote teaching and learning differ vastly from traditional face-to-face learning. It is defined as the physical separation of the student and lecturer by time and space (Todrie et al., 2020). Anderson (2016) has a similar view of remote teaching and learning. He states that remote teaching and learning occur across distances through the internet and require specific elements to ensure good interaction between students and lecturers. The assumption is thus that remote teaching and learning connects the student and lecturer (Alea et al., 2020) through means of technology (Ferri, Grifoni & Guzzo, 2020).

One particular theory that underpins remote teaching and learning is the social constructivist theory. The social constructivist theory is learner centred, and knowledge is constructed in a social context (Xu & Shi, 2018). The lecturer's role is to guide the student in the remote-learning experience (Reich et al., 2020). An example of the remote-learning approach is when students have online discussions with peers, and the lecturer facilitates these discussions. Reich et al. (2020) have a similar view of the remote-learning approach, as the lecturer guiding online discussions.

Todri et al. (2020) and Arasaratnam-Smith et al. (2017) argue that certain elements need to be in place to ensure a successful remote-learning experience for students and lecturers. These elements (cf. Figure 2.2) include a remote-learning infrastructure,

lecturer and student competence and readiness to navigate the remote-learning space, and teaching and learning-related aspects (cf. also 2.3) related to remote teaching and learning (Ho et al., 2021).

2.3 ELEMENTS OF REMOTE TEACHING AND LEARNING

Todri et al. (2020) and Arasaratnam-Smith et al. (2017) suggest that certain elements must be in place to ensure a successful remote-learning experience for students and lecturers. These elements depicted in Figure 2.2 include the remote-learning infrastructure, lecturer and student competence and readiness to use ICTs in a remote-learning environment (Ho et al., 2021). The researcher provided a diagrammatic illustration of these elements in the figure below (cf. also 2.3.1-2.3.3).

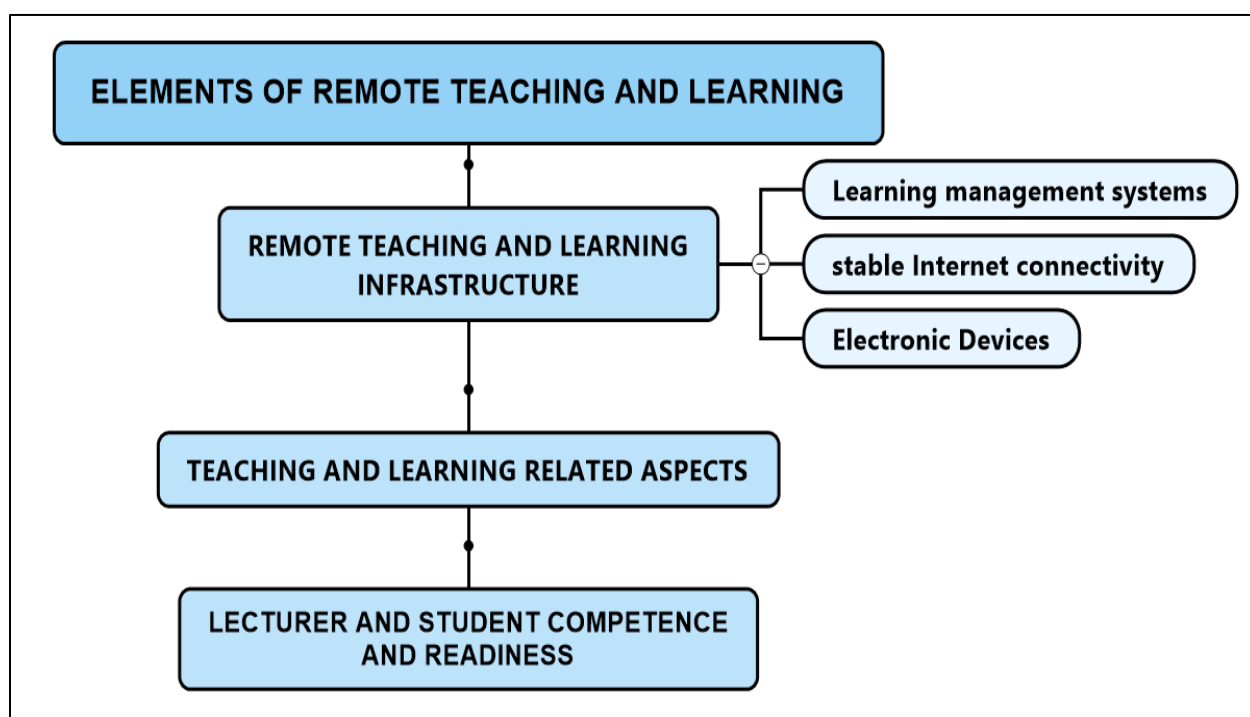


Figure 2.2: Elements of a remote-learning experience in the context of Higher Education

2.3.1 Elements related to remote teaching and learning infrastructure

Remote learning requires a specific infrastructure to enable a positive remote-learning experience. This infrastructure will enhance the remote-learning experience (Garad, Al-Ansi & Qamari, 2021). Moreover, these elements must be of good quality to ensure

effective interaction between students and lecturers (Moore & Fodrey, 2018). Given this understanding of remote-learning infrastructure, one also finds that a remote-learning infrastructure differs from the traditional, face-to-face learning infrastructure (Mpungose, 2020).

The first aspect that informs the remote-learning infrastructure is learning management systems (LMS). Learning management systems are web-based technology that supports remote learning (Kukulska-Hulme & Traxler, 2007). Habib et al. (2021) view learning management systems as digital and integrated platforms for lecturers to share course material, lesson plans, announcements and assessment reports for students to access. The second aspect of a remote-learning infrastructure is the availability of a stable internet connection. Garad et al. (2021) explain that a stable internet connection assists students and lecturers to accessing and navigating learning management systems successfully. Stallings (2015) attests to this when he states that a stable internet connection is required to ensure effective communication between smartphones, computers and application platforms such as Microsoft Teams, Blackboard and Moodle (LMS). Lastly, electronic devices are also required to participate in remote-learning activities (Kaliisa & Picard, 2017). Electronic devices include laptops, mobile phones, iPods and tablets (Kukulska-Hulme & Traxler, 2007; Kaliisa & Picard, 2017).

2.3.1.1 Teaching and learning-related aspects

The shift to remote learning necessitated that course material be adapted to suit the remote-learning context (Kemp & Grieve, 2014). For example, students could access study guides, assignments, and tests on Learning Management Systems (Iglesias-Pradas et al., 2021). Such electronic content may consist of pre-recorded videos of class sessions, tests, and individual or group assignments (Iglesias-Pradas et al., 2021). Students are responsible for completing tasks and tests remotely; results are available on these Learning Management System platforms.

On the other hand, lecturers are responsible for preparing and uploading presentations and learning tasks on the LMS (Nir-Gal, 2002). Lecturers must ensure clear guidelines and instructions for assignments and tests, as students do not have direct access to

lecturers in face-to-face classes (Mpungose, 2020). For this reason, Daniel (2020) encourages lecturers to collaborate in developing guidelines and instructions cooperatively to create a positive remote-learning environment.

2.3.1.2 Elements related to lecturer-student readiness to navigate the remote-learning approach

The final element that should be considered for a practical, remote-learning experience is the lecturer-student readiness to use a remote-learning approach. Lecturer-student willingness, in the context of a remote-learning approach, can be considered as the lecturer being ready and prepared to teach in a remote-learning setup and developing remote-learning study content (Junus et al., 2021). Ebner et al. (2020) view lecturer-student readiness as the lecturer and the student navigating and utilizing technology, learning-management systems, and electronic devices. Bin Abdul Lasi (2021) adds that lecturer-student enthusiasm for remote learning deals with changes in online lessons, marking, and conducting remote assessments. Therefore, for a practical remote-learning experience to occur, the expectation is that the lecturer and student need to be familiar and comfortable with remote learning.

However, given this expectation, studies have shown that lecturers and students' low digital literacy has affected remote learning negatively (Ali, 2020). Although training is provided to teaching staff, a study by Kemp and Grieve (2014) reports that the training received may not be adequate to implement and plan remote learning. For this reason, Kemp and Grieve (2014) argue that constant training for lecturers is required to equip them with remote learning.

Another issue that affects the quality of remote learning negatively is the lecturers' lack of experience in facilitating remote classes (Reyes-Chua et al., 2020). In support of this statement, the studies by Reyes-Chua et al. (2020) and Junus et al. (2021) report that lecturers sometimes leave students to figure out learning-management systems due to their incompetence in guiding them. Tang et al. (2021) report that many lecturers are unwilling to adopt a remote-learning approach due to their traditional way of teaching. Another issue that harmed student-lecturer readiness for the remote-learning experience

is students' readiness to engage in remotely learning (Griffiths, 2016). A study by Tang et al. (2021) reports that a lack of student training influences students' ability to engage in a remote-learning approach negatively.

2.4 SUMMATIVE PERSPECTIVES RELATED TO ELEMENTS OF REMOTE LEARNING

As already stipulated (cf. 2.3), the elements required to ensure a successful remote-learning experience for students and lecturers include remote-learning infrastructure, lecturer and student competence and readiness to navigate the remote-learning space, and teaching and learning-related aspects related to remote teaching and learning. With these elements as a backdrop, the next section will focus on factors influencing the remote-learning experience in higher education (cf. 2.5).

2.5 FACTORS INFLUENCING A REMOTE-LEARNING EXPERIENCE IN THE CONTEXT OF HIGHER EDUCATION

This section describes the factors that influence the remote-learning experience within the context of higher education. The factors are categorized under three sub-sections. These sub-sections are identified as i) *Student-related factors associated with remote learning (cf. 2.5.1)*; ii) *Technology-related factors associated with remote learning (cf. 2.5.2)*; and iii) *Lecturer-related factors associated with remote learning (cf. 2.5.3)*. For clarity, Figure 2.3 outlines the factors that inform each subsection. An in-depth description of each of these subsections is provided in the next section.

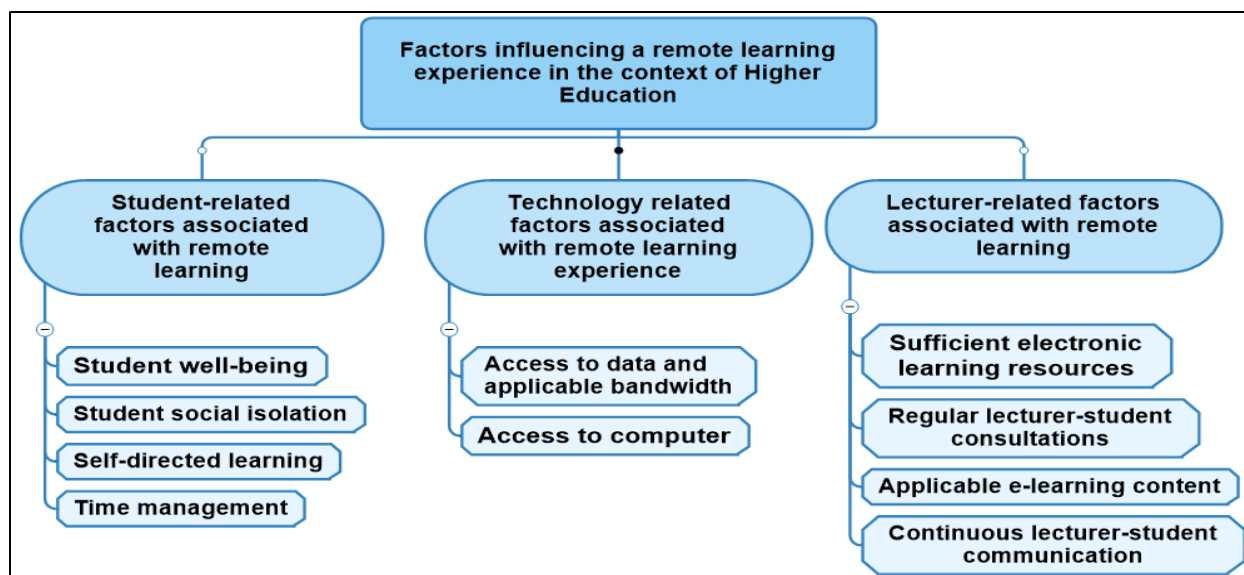


Figure 2.3: Factors influencing remote learning

2.5.1 Student-related factors associated with remote learning

The first set of factors that influence the remote-learning experience is student related. These factors include: i) *Student wellbeing associated with a remote-learning experience* (Hammerstein et al., 2021; Segrin, 2014); ii) *Student social isolation experienced due to remote learning* (Asanov et al., 2021); iii) *Self-directed learning for a remote-learning experience* (Tabuenca, Greller & Verpoorten, 2021; Niemi & Kousa, 2020; Beer, 2019); and iv) *Time management for a remote-learning experience* (Osman et al., 2018; Bowen, 2020).

2.5.1.1 Student well-being associated with a remote-learning experience

The first student-related factor that significantly affects how students perceive the remote-learning experience deals with student anxiety associated with the remote-learning approach. Feeling anxious is known to occur when an individual is unsure of the source of the perceived threat (Brooks et al., 2020). Interestingly, Hammerstein, et al. (2021) report that students encounter extreme levels of anxiety associated with remote learning because they are unsure how the shift to remote learning might affect their academic progression.

Segrin (2014) explains that feelings of helplessness characterize anxiety during a stressful situation, such as the uncertainties of remote learning. Hammerstein et al. (2021) add that such anxiety stems from a stressful situation. For example, the delay caused by the shift to remote learning left students experiencing despair and helplessness (Aristovnik et al., 2020). A study by Unger and Meiran (2020) reports that students are mainly concerned with the longevity of remote learning, the changing nature of assessment due to remote learning, and the lack of physical interaction with peers and lecturers due to remote learning. Within the context of this study, such feelings and experiences of student anxiety are an outcome of the socio-emotional deterioration that students encounter due to the adversity caused by the shift to remote learning. In this case, the socio-emotional deterioration of students is regarded as a temporary phase that depicts an individual's state of despair and lack of hope due to the challenges triggered by a specific environmental phenomenon (Patterson & Kelleher, 2005).

2.5.1.2 Student social isolation experienced due to remote learning

A second student-related factor that significantly affects how students perceive the remote-learning experience deals with students' social isolation (Asanov et al., 2021; Cicha et al., 2021). Nicholson (2009:1346) defines students' social isolation as "a state in which the student lacks a sense of belonging socially, lacks engagement with other students, has a minimal number of social contacts with fellow students, and is deficient in fulfilling quality relationships with students" due to the remote-learning environment. Pecjak et al. (2021) has a similar view of student social isolation as the absence of social support, interaction, and meaningful relationships and activities with other students due to remote learning.

Furthermore, students' social isolation occurs when no social interaction, contact, or relationships with other individuals or students are present during remote learning (Boaz & Boaz, 2006). The expectation is that students should interact with other students in a physical classroom setup. However, students may long for a sense of belonging and engagement with other students during remote learning (Cicha et al., 2021). In this study, such experiences of student isolation serve as another outcome of the socio-emotional

deterioration that students encounter due to the adversity caused by the shift to remote learning.

2.5.1.3 Self-directed learning for a remote-learning experience

A third student-related factor that significantly affects how students perceive the remote-learning experience deals with self-directed learning during a remote-learning experience (Savitsky et al., 2020; Niemi & Kousa, 2020). A study by Senel and Senel (2021) reports how students reported the excessiveness of self-directed learning activities during a remote-learning period. Self-directed learning deals with students' ability to complete module-related materials and activities without the direct supervision of the lecturer (De Borges, Dias & Santos, 2021). In remote learning, the expectation is that students use self-directed learning tasks to demonstrate a mastery of modular content (Niemi & Kousa, 2020). It is commonly found that these self-directed learning tasks should be completed through an online learning management system such as Blackboard or Moodle (Inegbedion, 2017).

In a study by Aristovnik et al. (2020), the expectation of self-directed learning due to remote-learning experiences often triggers feelings of overwhelmedness, anxiety, stress, and hopelessness among students. According to Smith (2019) and Tabuenca et al. (2021), these feelings often affect students' academic success negatively. In this study, such incidents of overwhelmedness, anxiety, stress and desperation additionally point to the socio-emotional deterioration that students are subject to due to the adversity caused by the shift to remote learning.

For this reason, Niemi and Kousa (2020) argue that an increased number of self-directed learning tasks during remote learning will affect students' emotional well-being. Against this backdrop, Tabuenca et al. (2021) suggest that support mechanisms be implemented to support students in executing these self-directed learning tasks in a remote-learning experience. Some of these mechanisms include student orientation on managing their time with the tasks effectively. Another tool is an orientation on effectively prioritizing self-directed tasks (Beer, 2019). These aforementioned support mechanisms may result in

students' socio-emotional adaption to the adversity caused by the remote-learning environment.

2.5.1.4 Time management for a remote-learning experience

The final student-related factor significantly affects how students perceive the remote-learning experience deals with time management. Time management is defined as the ability of individuals to organize and schedule their time to accomplish effective work and increase productivity (Osman et al., 2018). Effective time management may be due to good time management skills (Bowen, 2020). Poor time management may lead to students procrastinating (Broadbent, 2017) and may affect student performance negatively during the remote-learning experience (Osman et al., 2018).

The remote-learning environment expects of students to manage their academic schedules effectively, requiring some form of self-discipline (Broadbent, 2017). This expectation includes setting realistic goals and monitoring these goals (Bozkurt et al., 2020). Time management and self-discipline have become imperative within remote-learning contexts (Bozkurt et al., 2020). Therefore, coping mechanisms to overcome this factor entails being self-disciplined when managing time pertaining to academic schedules during remote learning (Broadbent, 2017). Such coping mechanisms may result in students encountering a level of socio-emotional adaption or recovery concerning the adversity caused by the remote-learning experience.

2.5.2 Technology-related factors associated with the remote-learning experience

The second set of factors that influence the remote-learning experience is technology related. These factors include i) *Access to data and applicable bandwidth for a remote-learning experience* (Dogar et al., 2020; Bower, 2019; ii) *Access to computer use for a remote-learning experience* (Bower, 2019); and iii) *Lecturer-related factors associated with remote learning* (Hasan & Bao, 2020; Auxier & Anderson, 2020).

2.5.2.1 Access to data and applicable bandwidth for a remote-learning experience

The first set of technology-related factors that affect the remote-learning experience of students deals with access to the internet, data, and level of internet connectivity (Dogar et al., 2020). Van Deursen and Van Dijk (2019:356) define internet access "as a process of connecting to the internet through the use of computers or smartphones to access, navigate and use software". The ushering in of the remote-learning approach at higher education institutions necessitated that students increasingly become dependent on internet use through data to complete online activities on various learning-management systems (Bower, 2019).

Unfortunately, given this task, various studies report unstable internet connectivity as an obstacle to effective remote learning. One such study was done by Oducado (2020) when they state that an unstable internet connection restricted students from engaging in remote-learning activities. The authors claim that this issue influenced the online learning experience of students negatively. Another study by Williamson et al. (2020) found that students must often deactivate online features such as their microphones and video interaction to ensure a more stable internet connection. Unfortunately, this approach results in a one-way communication between the lecturer and the students that is often not engaging by nature (Williamson, Eynon & Potter, 2020).

Mseleku (2020) claims that such an approach often results in passive learning among students, which downplays the effectiveness of online learning. Mseleku's view (2020) aligns well with that of Oducado (2020), who claim that one-way communication between students and the lecturer results in a feeling of student disconnect during the lecture, which influences the educational experience of students during a remote-learning lecture negatively. Within the context of this study, it could be reasoned that the adversity caused by the students' limited access to the internet and the unstable internet connectivity during the remote-learning approach resulted in them experiencing a level of hopelessness, anxiety, and frustrations that represented the socio-emotional deterioration they endured, since they were not able to engage fully with the online learning experience (cf. 3.4.2).

2.5.2.2 Access to computer use for a remote-learning experience

The second set of technology-related factors that affect the remote-learning experience of students deal with their access to computers, notebooks, or laptops to engage in remote-learning tasks. Computers are vital to the remote-learning experience, since it allows students to engage with remote-learning content and software while attending online lectures. However, the reality is that not all students can access computers to use a remote-learning approach (Hasan & Bao, 2020; Auxier & Anderson, 2020).

A study by Mohi and Alrufiai (2016) expresses how students, due to their socio-economic backgrounds, do not have access to workable computers that are sufficient for a remote-learning approach. In some instances, students have no other option than to use their mobile phones to engage in a remote-learning experience (Neuwirth, Jović & Mukherji, 2020). Given this approach, the challenge of navigating online teaching and learning materials used during remote learning is often problematic for students. Given these issues, it would be suggested that HEIs should do more to make laptops and notebooks available to students, which would account for a more efficient remote-learning approach.

2.5.3 Lecturer-related factors associated with remote learning

Finally, one also finds lecturer-related factors that influence the remote-learning experience of students. These lecturer-related factors include *i) sufficient electronic learning resources* (Coman et al., 2020; Mseleku, 2020); *ii) regular lecturer-student consultations* (Mpungose, 2020; Jansen, 2004); *iii) applicable e-learning content* (Cranfield et al., 2021; Paschal & Mkulu, 2020); *iv) continuous lecturer-student communication* (Abuhammad, 2020; Coman et al. 2020); and *v) structured online lesson activities and presentations* (Rotas & Cahapay, 2020; Eduwem & Ezeonwumelu, 2020). These factors are briefly described next.

2.5.3.1 Sufficient electronic learning resources for a remote-learning experience

The first lecturer-related factor affecting students' remote-learning experience deals with the lack of e-learning resources for application in a remote-learning approach. E-learning resources come in various forms, such as software programmes and digital courses that

will allow students to have an interactive, online learning experience (Ali, 2020). One possible reason for the lack of e-learning resources available to students is the abrupt nature of the pandemic that forced traditional face-to-face lectures to shift to an online mode within a short period (Coman et al., 2020).

Paschal and Mkulu (2020) claim that in many instances, lecturers were unable to adapt their teaching materials sufficiently and timeously for a remote-learning mode of delivery. In addition, their study also reports on how students experienced challenges interpreting the electronic resources provided to them during a remote-learning approach (Paschal & Mkulu, 2020). Similarly, a study by Dutta (2020) found that although some e-learning resources were made available to students, they could not access the resources, due to their incompatible electronic devices. The assumption could therefore be made that a lack of e-resources influenced the remote-learning experience of students negatively.

2.5.3.2 Regular lecturer-student consultations for a remote-learning experience

A second lecturer-related factor influencing students' experience of a remote-learning approach is the lack of lecturers' presence during remote-learning sessions (Mpungose, 2020). In the traditional face-to-face setup, access to lecturers implies that students can consult with lecturers face-to-face (Jansen, 2004). These face-to-face consultations usually occur in real-time, and feedback to students is immediate (Waghid, 2018). However, with remote teaching and learning, students sometimes have to wait for feedback from lecturers (Czerniewicz et al., 2020). This delay in feedback might be ascribed to lecturers primarily communicating with students via e-mail instead of the traditional face-to-face mode (Czerniewicz et al., 2020).

It is commonly found that this mode of communication during remote learning may cause a delay in response. Furthermore, it may be too late when a lecturer responds to students' queries via e-mail (Rotas & Cahapay, 2020). Students also reported that meeting lecturers in a remote-learning environment was impersonal (Maphosa, 2021). To curb this issue, alternative communication should be identified and utilized to ensure better communication between lecturers and students during a remote-learning approach.

2.5.3.3 Applicable e-learning content for a remote-learning experience

A third lecturer-related factor that influences the remote-learning experience of students deals with non-applicable e-learning content provision to students during a remote-learning exercise. Once again, the abrupt shift to a remote-learning approach resulted in lecturers not having sufficient time to thoroughly plan and prepare applicable e-learning content for their remote-learning modules (Paschal & Mkulu, 2020). This abrupt shift to a remote-learning mode resulted in lecturers adapting face-to-face learning content to suit a remote-learning approach (Cranfield et al., 2021). This sudden shift resulted in the newly designed e-learning content not being entirely suitable for a meaningful remote-learning experience (Landa, Zhou & Marongwe, 2021). As a result, some students found the adapted e-learning content troublesome (Rotas & Cahapay, 2020), as some reported the e-content being challenging to interpret. One could therefore reason that the failure of students to follow up with the module lecturer to clarify the e-learning content further problematizes the issue with e-learning content.

2.5.3.4 Continuous lecturer-student communication for a remote-learning experience

A fourth lecturer-related factor that influences the remote-learning experience of students deals with poor lecturer-student communication and interaction during a remote-learning approach. Effective lecturer-student communication allows for sharing opinions and emotions in an educational forum free from intimidation and judgement (Mseleku, 2020). Shim and Lee (2020) explain that the level of lecturer-student communication within a remote-learning environment is essential to ensure a meaningful remote-learning experience.

However, in a recent study conducted by Abuhammad (2020), students often experience challenges engaging with module lecturers during online, remote-learning sessions. According to Abuhammad (2020), various factors seemed to affect the level of engagement between students and lecturers in this case. For example, students reported their lack of confidence in sharing their opinions on an online platform (Abuhammad, 2020). On the other hand, other students lost interest in the online lesson due to the

passivity of the online lecture, which resulted in them not investing any effort engaging in it (Coman et al., 2020).

Shim and Lee (2020) point to other issues about poor lecturer-student communication, which resulted in students not being confident to complete the e-learning activities provided by the lecturer during a remote-learning lecture. This results in students encountering feelings of confusion and frustration with the remote-learning process, which might further influence the socio-emotional deterioration of students during a remote-learning approach. With these issues as a backdrop, Coman et al. (2020) propose that more effective ways to strengthen communication between lecturers and students during remote learning should be initiated.

2.5.3.5 Structured online lesson activities and presentations for a remote-learning experience

Finally, the fifth lecturer-related factor that influences the remote-learning experience focuses on the excessive number of e-learning activities provided to students during remote learning. Eduwem and Ezeonwumelu (2020), for example, claim that during remote learning, students were exposed to excessive academic activities and struggled to cope with the intensity of workload under a remote-learning condition. As a result, students felt overwhelmed by the remote-learning experience.

The latter influences the students' enthusiasm, motivation, and determination to succeed with the given task negatively, ultimately affecting their academic progress (Rotas & Cahapay, 2020). This issue again has a socio-emotional influence on the student. Given this issue, Rotas and Cahapay (2020) suggest that more effort be made to orientate students on how to plan their academic schedules more effectively during a remote-learning approach.

2.6 SUMMATIVE PERSPECTIVES APPLICABLE TO FACTORS INFLUENCING A REMOTE-LEARNING EXPERIENCE WITHIN THE CONTEXT OF HIGHER EDUCATION

This chapter provided an in-depth review of relevant literature perspectives applicable to the remote-learning approach within the context of higher education. In the first instance, an effort was made to conceptualize what was meant by a remote-learning experience (cf. 2.2.3). After that, a description of the different approaches to teaching and learning was provided. The description of the different teaching and learning approaches was followed by a discussion of the core elements that affected a remote-learning approach. The factors influencing a remote-learning experience in higher education were also elaborated. Below is a summary of the elements and factors associated with remote teaching and learning approaches.

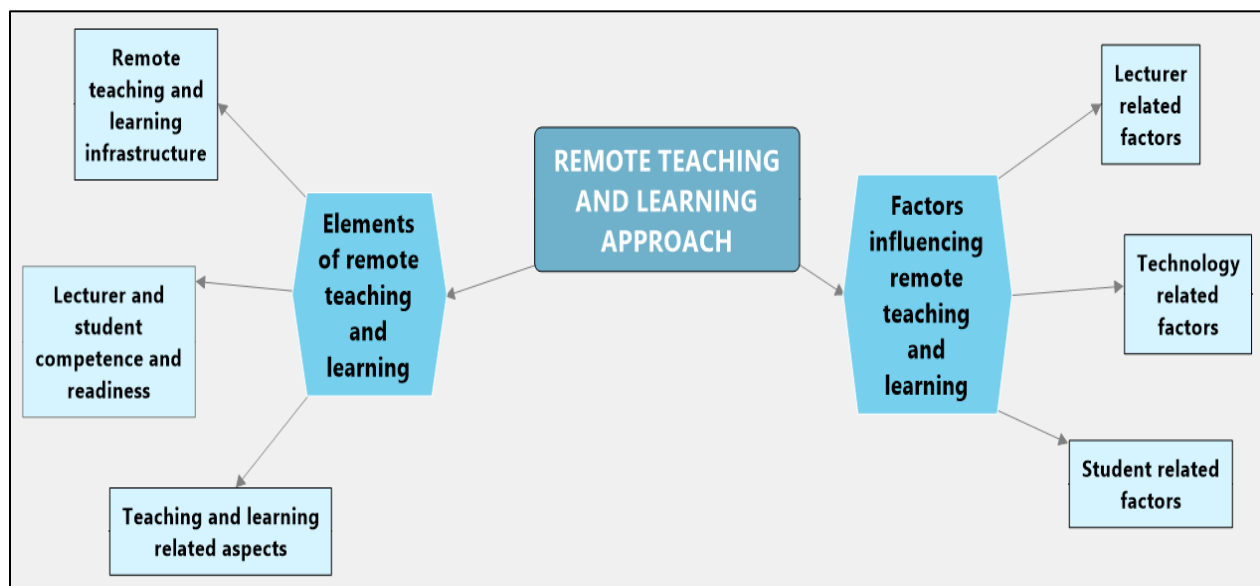


Figure 2.4: Summary of the elements and factors associated with a remote teaching and learning approach

The upcoming chapter focuses on the Resilience Theory as the theoretical framework guiding the study.

CHAPTER 3:

RESILIENCE THEORY AS THE THEORETICAL FRAMEWORK OF THE STUDY

3.1 INTRODUCTION

To connect with the previous literature review chapter (cf. chapter 2) on remote teaching and learning approaches for first-year students, this chapter conceptualises the Resilience Theory as the suitable framework for the study.

A theoretical framework is a foundation on which knowledge is built (Osanloo & Grant, 2016). Lawrence (2014:35) views a theoretical framework as "a theoretical system that consists of assumptions and concepts". Creswell and Creswell (2017) add that a theoretical framework serves as a lens through which the researcher analyses phenomena, draws connections, and makes predictions within a study against a backdrop of a set of theoretical assumptions and principles.

In other words, a theoretical framework, therefore, comprises the theories experts express in the field that are relevant to the research focus of a study. Liehr and Smith (1999, in Tamene, 2016), add that a theoretical framework guides the researcher in determining the types of questions to pose and the methods to follow in research. Additionally, Anfara and Mertz (2014) suggest that a theoretical framework is essential in assisting the researcher in making sense of the data collected in a study.

With this understanding in mind, the theoretical framework considered for this study was Resilience Theory. The use of Resilience Theory in this study was essential in making meaning of the data collected in line with the study's aim (cf. chapter 1). In other words, the use of Resilience Theory was crucial for explaining how the students experienced the shift to a remote learning approach (i.e., the phenomena) by linking their rich experiences to the theoretical underpinnings of Resilience Theory. A more informed clarification of what resilience theory means is provided next (cf. 3.2).

A conceptualization of Resilience Theory is provided (cf. 3.2.1). After that, the focus shifts to explaining the core phases of Resilience Theory (cf. 3.3.1, 3.3.2 & 3.3.3). Finally, the summative perspectives related to Resilience Theory are provided (cf. 3.3.4). Ultimately, a summary of the chapter is suggested.

3.2 RESILIENCE THEORY AS A THEORETICAL FRAMEWORK

The purpose of this section of the chapter is to conceptualize the theoretical framework that will guide the study. The theory that served as a framework through which the qualitative data in this study was analysed and interpreted is known as the Resilience Theory.

3.2.1 Resilience theory as the theoretical lens of the study

According to Vernon (2004), the resilience concept found its roots in psychology around the 1900s. Over the past few decades, Resilience Theory has continuously become popular in higher education research (Greene et al., 2004; Patterson & Kelleher, 2005). Within the context of higher education and student success, the Resilience Theory is constructive in unravelling students' socio-emotional experiences on their journey towards achieving academic success in tertiary education (Van Breda, 2018). These student experiences are associated with feelings and emotions that are associated with:

- socio-emotional deterioration (e.g. students encountering feelings of overwhelmedness, anxiety, and hopelessness),
- socio-emotional adaptation (e.g. students encountering feelings of motivation and hope to succeed), and
- the socio-emotional recovery (e.g. students encountering moments of personal growth, liberation, and the will to succeed) within a set context.

In other words, Resilience Theory allows one to understand the types of experiences students encounter on their journey towards achieving academic success better (Young et al., 2019).

Resilience is defined in various ways. Masten (2014) defines resilience as the capacity to adapt to disruptions endangering a system's functioning, viability, and development. Moreover, resilience is the inherent nature of an individual or its competencies, while others refer to it as positive functioning when adversity strikes (Van Breda, 2018). The concept of adversity is regarded as a complex or challenging situation that individuals encounter that requires of them to practise a level of resilience to succeed (Bhamra, Dani & Burnard, 2011). Resilience refers to aspects such as "readiness and preparedness", "response and adaption", and "recovery or adjustment" (Bhamra et al., 2011). In this study, resilience can be viewed as how students in the FoE at the UFS demonstrated their readiness and preparedness, their response and adaption, and their recovery and adjustment to the transition to a remote-learning approach during a time of the pandemic. Their transition from traditional face-to-face teaching and learning to online remote learning was classified as a moment of adversity.

With this understanding of Resilience Theory in mind, scholars such as Patterson and Kelleher (2005) claim that three core phases underpin Resilience Theory. These phases are the "deteriorating phase", the "adapting phase" and the "recovering phase". Given the aim of the study (cf. chapter 1), which was to investigate how students developed resilience during a remote-learning approach, the use of Resilience Theory was fundamental in uncovering their experiences associated with socio-emotional deterioration (e.g. students encountering feelings of overwhelmedness, anxiety, and hopelessness), socio-emotional adaptation (e.g. students encountering feelings of motivation and hardiness to succeed) and socio-emotional recovery (e.g. students encountering moments of personal growth, liberation, and personal achievement) that they endured in adapting to the disruptions brought about by the shift to an online learning approach. Each of the phases of Resilience Theory will now be discussed in more detail.

3.3 CONCEPTUALISING STUDENT RESILIENCE BY DRAWING ON THE RESILIENCE CYCLE

Resilience is an outcome of the student's ability to recover from adversity (Majiba & Majiba, 2020). The level of adversity that the individual experience influences the individual's resilience negatively. All three of these phases are interdependent and should co-exist for resilience to suffice. The higher the level of adversity, the higher the socio-emotional deterioration. With an increased level of socio-emotional deterioration, it will take longer for an individual to adapt and recover from the adversity. The level of socio-emotional adaption and socio-emotional recovery influences the level of resilience. For example, suppose an individual encounters a substantial level of socio-emotional deterioration regarding a particular event. In that case, a corresponding amount of socio-emotional adaption is required to put the individual on the path to socio-emotional recovery.

Figure 3.1 below outlines the resilience theory per Patterson and Kelleher (2005). A more in-depth description of the theory is provided next

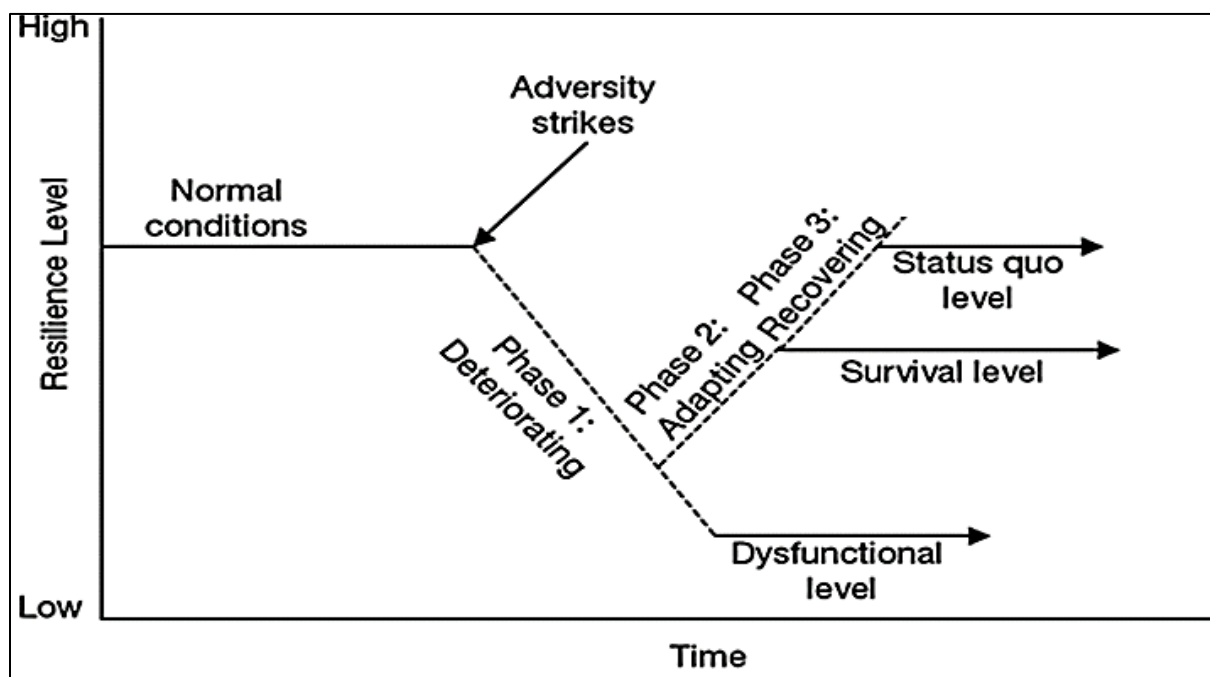


Figure 3.1: Resilience theory by Patterson and Kelleher

Figure 3.1 presents the various aspects of the resilience cycle. In approaching an event that triggers feelings of adversity, individuals operate within normal day-to-day conditions (Patterson & Kelleher, 2005). In this study, normal conditions were considered as the students in the FoE engaged in the traditional on-campus academic programmes and activities that commonly took place in a face-to-face mode of delivery (Carrillo & Flores, 2020).

The resilience cycle begins when a level of adversity (e.g. an experience of distress due to an unfortunate incident) is triggered within a particular context (Patterson & Kelleher, 2005). In this study, Adversity deals with the student experiences of adapting to the shift from a face-to-face mode of delivery to an online remote-learning approach within a brief period. Such a level of adversity results in individuals encountering some form of socio-emotional deterioration characterised by feelings of hopelessness, anxiety, stress, and frustration. The latter influences individuals' resilience negatively, resulting in a decline in personal resilience.

3.3.1 An introduction to the socio-emotional deteriorating phase of the resilience cycle

The first phase that informs the cycle of resilience deals with individuals' socio-emotional deterioration due the effects of adversity. Patterson and Kelleher (2005) regard the socio-emotional deteriorating phase as a temporary phase depicting an individual's despair and lack of hope due to individual issues encountered resulting from a specific phenomenon within a specific environment. Within the context of this study, the expectation that students had to transition from a traditional face-to-face teaching and learning approach to an online, remote-learning approach, could be regarded as a form of adversity.

From the literature (cf. chapter 1), one finds that students' sudden adoption of a remote-learning approach resulted in their socio-emotional deterioration regarding their academic progress. To be specific, characteristic features associated with the socio-emotional deterioration of students due to the remote-learning approach include a) students experiencing feelings of hopelessness, b) anger, c) aggression, and d) frustration with the remote-learning approach (Piccoli, Ahmad & Ives, 2001); Marchetti, 2019; Veenstra,

Bushman & Koole, 2018). These characteristic features associated with the socio-emotional deterioration of students due to remote learning are depicted in Figure 3.2 and described. in 3.3.1.1 below.

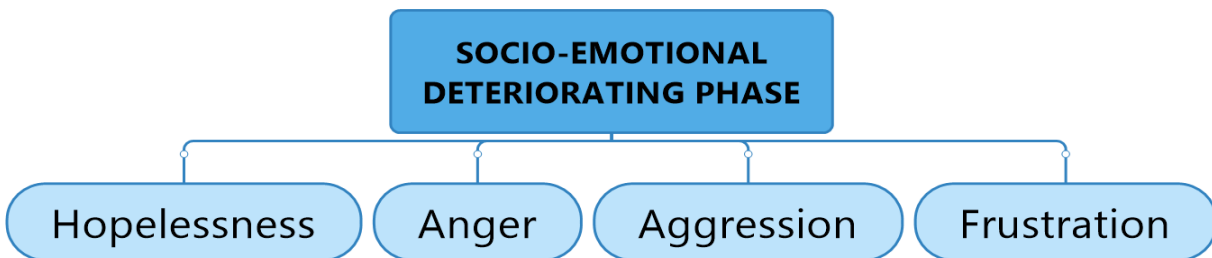


Figure 3.2: Characteristics of socio-emotional deteriorating phase

3.3.1.1 Hopelessness

Hopelessness with the processes involved with remote learning contributes to the socio-emotional deterioration of students. Thus, hopelessness is a complex phenomenon due to its unclear features (Marchetti, 2019). Additionally, hopelessness occurs when an individual faces unexpected stressful events, which result in a lack of optimism accompanied by unbelief that the situation might change (Bin Abdul Lasi, 2021). In addition, the repetitive experience of stressful conditions or events, coupled with struggling to cope, may result in negative feelings towards future expectations. Marchetti (2019) has a similar understanding of hopelessness as an adverse life event creating an expectation that the negative situation will remain unchanged. Parental support for students engaged in a remote-learning approach is essential in their socio-emotional adaptation to the adversity caused by the shift to remote learning.

In this study, hopelessness may be associated with the students' inability to communicate effectively with the lecturers during remote learning. This characteristic can also be associated with students feeling overwhelmed due to the excessive number of e-learning activities they have to complete during a remote-learning experience. Furthermore, hopelessness may account for students struggling with internet connectivity during remote online classes.

3.3.1.2 Anger

The shift to remote learning further sparked anger, which also resulted in the socio-emotional deterioration of students. Anger is one of the most substantial feelings an individual can experience (Piccoli, Ahmad & Ives, 2001). Individuals may portray anger as hostility and aggression (Gaddy, 2009). Moreover, it is an emotion adopted by individuals in response to feelings of frustration, threats, or violations (Jack, 2001). A response to these feelings is associated with an increased heart rate, adrenaline, and elevated blood pressure. Jack (2001) further states that anger gives rise to aggression. Although anger can cultivate these feelings, they are not all destructive (Gaddy, 2009; Jack, 2001). Aggression is discussed below, as identified by Jack (2001), namely being present when angry. In this study, anger may be associated with the students' inability to reach their lecturers on time during remote communication. The assumption can also be made that students felt anger in not being able to make meaning of complex e-learning materials during a remote-learning approach.

3.3.1.3 Aggression

The shift to remote learning also resulted in students encountering feelings of aggression which also affected the socio-emotional deterioration of students. The best-known definition of aggression is the behaviour of individuals or groups intending to cause harm or injury (Vitale, 2008, in Liu, Lewis & Evans, 2013). Piccoli, Ahmad and Ives (2001) have a similar view, namely that aggression constitutes a behaviour meant to cause physical damage to another. Gindro (2003) adds that underlying emotions like fear and anger are usually present during aggressive behaviour.

Aggression is also a response to a frustrating situation (Vitale, 2010). In addition, aggression can be linked to an individual's environment (Gindro, 2003). Gindro (2003) further states that if aggression is channelled appropriately, it may give rise to the survival of situations, for example, caused by ineffective communication with lecturers, vague learning content, and inability to connect or access remote-learning content on LMS (Gindro, 2003). The researcher views aggression as an individual's response to a frustrating situation or environment as presented in this study. In this study, aggression

might be associated with the student's inability to interact socially with peers during a remote-learning approach. Aggression might also be triggered amongst students due to the lack of equipment required for the remote-learning approach.

3.3.1.4 Frustration

It is widely reported that students experienced frustration with the remote-learning approach, which further resulted in them experiencing some form of socio-emotional deterioration. Studies reveal that frustration is one of the most common feelings experienced by students involved in online remote-learning activities (Asanov et al., 2021). Frustration is viewed as an emotional state caused by an uncontrollable situation, including students being forced to adopt a remote-learning approach due to the pandemic (Bertsch, Florange & Herpetz, 2020). The feeling of frustration with remote learning has dire consequences on the academic success of students.

Polizzi, Lynn and Perry (2020) explain that over time, frustration with remote learning could result in students becoming less motivated. Polizzi et al. (2020) further add that frustration with the remote-learning process might lead to students experiencing heightened anxiety, low confidence, low self-esteem, and a negative attitude towards studies. In this study, frustration might be associated with the students' inability to understand lesson activities due to poor lecturer communication and a perceived increase in workload. Frustration might also be associated with the students' inability to connect with fellow students in a social context. Finally, one might also assume that students felt frustrated not being able to interpret the e-learning activities that accompanied the remote-learning approach thoroughly.

3.3.2 The socio-emotional adapting phase of the resilience cycle

A second phase that informs the cycle of resilience deals with the socio-emotional adaptation of individuals to adversity. According to Patterson and Kelleher (2005), the socio-emotional adapting phase is characterised by the ability of an individual to 'bounce back' to overcome adversity. This 'bouncing back' refers to a period where a positive change in attitudes occurs (Neenan, 2017). Neenan (2017) further adds that adapting not

only refers to overcoming challenges but also to improving and circumventing stressful situations. Characteristic features of the adapting phase within the context of remote learning include a) social support networks; b) e-learning resources; c) lecturer support; d) parental support; and e) peer support (Darling-Hammond et al., 2020). These characteristic features are depicted in Figure 3.3 and described below (cf. 3.3.2.1-3.3.2.5).

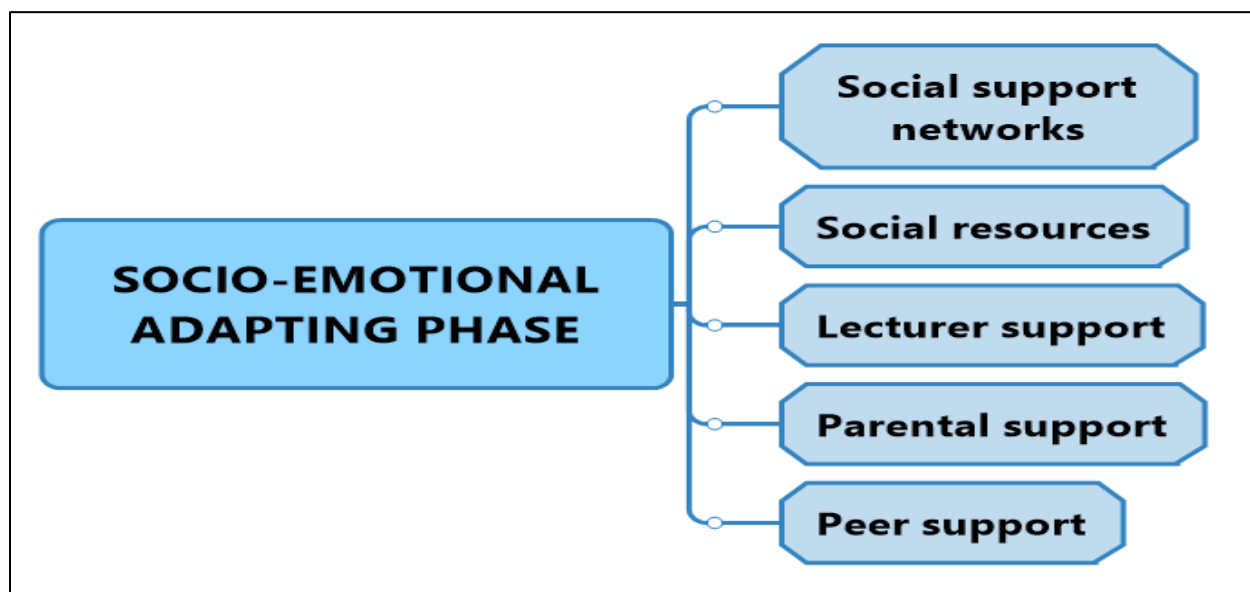


Figure 3.3: Elements of the socio-emotional adapting phase

3.3.2.1 Social support networks within the context of higher education

The reliance on social support networks during remote learning influenced the socio-emotional adaptation of students in adapting to a remote-learning approach. Mustanski, Newcomb and Garofalo (2011) define social support networks as forming support groups that assist individuals through life challenges. These social support networks within the context of remote learning are formed through family, friends, and fellow students (Li et al., 2021). Brewin, Andrews and Valentine (2000) view social support networks as support accessible via social ties to other family, friends, and groups. In addition, social support networks in remote learning refer to belonging to other people who care and are available to support someone through life challenges (Varkovitzky, Cort & Aubé, 2004; Saja et al., 2018). Social support networks are essential to counter social isolation during remote learning (Asanov et al., 2021).

In addition, Vedder, Boekaerts and Seegers (2005) state that social support networks entail social resources and assets. Ye et al. (2020) also conclude that social support networks include family, relatives, friends, and classmates. These social support networks can be understood as personal coping mechanisms that assist in the development of resilience. Social support forms an essential element of resilience (Sippel et al., 2015) during a remote-learning approach. In this study, social support networks might include the support that the students had from their peers and significant others who played a role in their adapting to the remote-learning approach.

3.3.2.3 E-learning resources in the context of remote learning

The use of e-learning resources informed the socio-emotional adaptation of students during a remote-learning approach. Kerksieck, Bauer and Brauchli (2019) view e-learning resources as those resources that students use to ease the remote-learning experience. E-learning resources such as e-textbooks, e-worksheets, educational videos, and e-learning software programmes have been declared meaningful in easing the remote-learning experience of students (Hammerstein et al. 2021). MacGillivray (2018) explains that using e-resources is essential in enabling students to engage in one-on-one learning, online peer learning, and video-based learning. Such resources are designed to allow students to understand module content better, since it promotes students' learning styles by stimulating a visualised learning process. Nettles et al. (2000) state that e-learning resources are beneficial, since it allows students to adapt to the stressful situation of a remote-learning approach. In this study, e-learning resources within the context of a remote-learning approach might include students' use of BlackBoard, Youtube, Google Docs, and Khan Academy.

3.3.2.3 Parental support in the context of remote learning

Parental support for students engaged in a remote-learning approach is essential in their socio-emotional adaptation to the adversity caused by the shift to remote learning. Parental support is parents' involvement in students' academic activity. Barnes et al. (2000:176) define parental support as "parental behaviours toward the student, such as praising, encouraging and giving physical affection, which indicate to the student that

he/she is accepted and loved" (Barnes et al., 2000:176). Interestingly, family support and involvement play a unique role in considering the different sources of support during remote learning (Raffaelli et al., 2013).

Luo et al. (2013) suggest that parental support comes in handy to assist students by encouraging them to persist in their online studies, providing emotional support to students during remote learning, and monitoring their academic progress during remote learning. Mata, Pedro and Peixotoa (2018) add that parental support during remote learning may assist students in improving their module grades. Parental support motivates students to adapt to remote learning (Luo et al., 2013). Such support might serve as a coping mechanism for students' anxiety with the remote-learning experience.

3.3.2.4 Peer support in the context of remote learning

Peer support during remote learning is another factor that affects students' socio-emotional adaptation during a remote-learning approach. Peer support is a process where two or more students share common interests, face similar challenges, and come together to support one another towards a common goal (Repper & Carter, 2011). Repper and Carter (2011) view a "peer" as someone with whom social and demographic similarities are shared. They refer to "support" as assistance and encouragement that students with the same experiences offer to one another within mutual relationships during remote learning (Repper & Carter, 2011).

While Andalibi and Flood (2021) view peer support as slightly different from giving and receiving help during challenging situations, Mead, Hilton and Curtis (2001) have a similar view of peer support as a system where the support of mutual interest is given. Peer support has a strong protective effect against psychological challenges, according to Mustanski et al. (2011). Interestingly, in remote learning, peer support plays an essential, protective role in anxiety and hopelessness during stressful situations (McConnell, Birkett & Mustanski, 2015). Peer support is understood as giving and receiving support during the mutual remote-learning context of students who share similar experiences during remote learning.

3.3.2.5 Lecturer support in the context of remote learning

Lecturer support during a remote-learning approach is essential in supporting students' socio-emotional adaption to the remote-learning experience (Anthony & Noel, 2021). Kumar Basak, Wotto and Belanger (2018) define lecturer support as the personal guidance and support lecturers provide to students so that they can cope and stay on track with the processes involved with remote learning. Reimers et al. (2020) add that such support includes providing electronic educational resources to students, explaining challenging and misinterpreted topics, and orientating students on e-activities and tasks.

On the other hand, Anthony and Noel (2021) explain that the lecturer's support should also focus on the human dimension. Ali (2020) explains that lecturers should strive towards motivating and encouraging their students to succeed with the e-activities at hand during a remote-learning approach. Moreover, Ali (2020) adds that lecturer support also includes monitoring students' progress during a remote-learning experience while encouraging students to participate in online sessions.

3.3.3 The socio-emotional recovering phase of the resilience cycle

The third and final phase, which informs the cycle of resilience, deals with individuals' socio-emotional recovery concerning adversity. In other words, the socio-emotional recovery of individuals focuses on how an individual encounters a level of personal growth due to the challenging scenario faced (Patterson & Kelleher, 2005). Beltman and Mansfield (2018) explain that the recovering phase is characterised by individuals adapting to the status quo or "new normal".

A feature of the recovering phase includes individuals performing at an optimal level of functioning under the new conditions brought forth by adversity (Ledesma, 2014). Waugh, Frederickson and Taylor (2008) share a similar understanding of the socio-emotional recovery of individuals when considered as individuals returning to homeostasis after a stressful situation. Some characteristic features of this phase in the context of remote learning include a) students taking control of their online studies; b) students encountering a level of empowerment in being successful with their online studies; c) students

undergoing personal growth regarding the remote-learning process; and d) students accepting existing circumstances of adversity (Linkov & Trump, 2019; Ungar, 2018).

These characteristic features are depicted in Figure 3.4 and described (cf. 3.3.3.1-3.3.3.4).

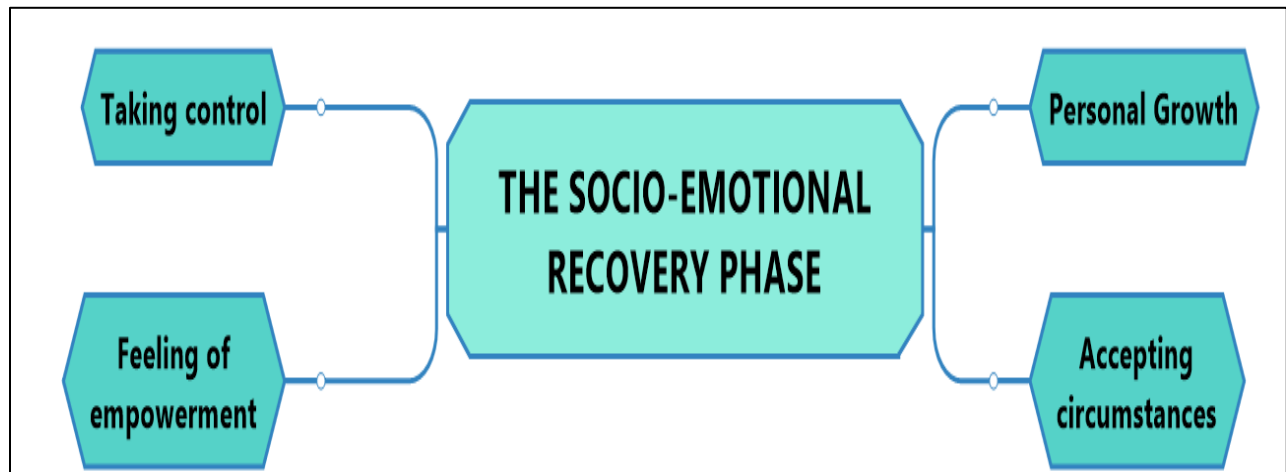


Figure 3.4: Characteristics of the socio-emotional recovery phase

3.3.3.1 Personal growth in the face of adversity during the recovery phase

The first characteristic feature that informs the socio-emotional recovery of students towards the remote-learning approach deals with their personal growth. Personal growth is viewed as a protective factor, enabling individuals to reach a positive state after adversity (Jackson, Firtko & Edenborough, 2007). In other words, it accentuates growth, despite the difficulty and changes. In addition, personal growth ensures perseverance (Sisto, 2019). Perseverance within the context of this study will be considered as students persevering, despite having difficulty with internet and computer access during remote learning. Interestingly, while persevering, a person reflects and decides the way forward (Sisto, 2019). This process of reflection may result in acceptance of the adverse circumstances (Duchek, 2020). Gupta and McCarthy (2021) argue that people who enter the recovery phase at this point have accepted the challenging circumstances.

3.3.3.2 Accepting circumstances during remote learning

The second characteristic feature that informs the socio-emotional recovery of students towards the remote-learning approach deals with their acceptance of circumstances

associated with remote learning. According to Plexico et al. (2019), acceptance occurs during the realisation that a problematic situation will not change. Plexico et al. (2019) believe that acceptance relieves stressful situations. Moreover, acceptance accelerates the recovery process (Sisto, 2019).

Interestingly, Gupta (2021) writes that the sooner someone accepts a situation, the sooner they move into recovery. Sisto (2019) adds that a conscious decision leads to acceptance. In other words, a will must be present for this decision to happen. After accepting the situation, an individual experiences a feeling of empowerment (Sisto, 2019). Students within the context of this study may have accepted the circumstances caused by remote learning by deciding on strategies to overcome challenges caused by remote learning. An example is students accepting that they are socially isolated and overloaded with lesson activities and trying to do something about it. This acceptance may have resulted in the sense of optimism.

3.3.3.3 Feeling of empowerment during remote learning

The third characteristic feature that informs the socio-emotional recovery of students towards the remote-learning approach centres around student empowerment during the remote-learning process. Feeling empowered is defined as being confident and in control of one's life (Pratto, 2016). Additionally, Brodsky and Cattaneo (2013:333) state that an unsatisfying state of adversity fuels resilience and empowerment. For example, students were forced out of their comfort zones (traditional face-to-face teaching and learning) to become resilient in adapting to a remote-learning environment.

This example aligns well with Pratto's (2016) view, which suggests that student empowerment occurs when students adapt to adverse conditions (Brodsky & Cattaneo, 2013). Traits of student empowerment include students being more confident with remote learning, showing more resilience towards the remote-learning approach, striving towards purposefulness, and being successful in their studies during a remote-learning process (Van Corven, 2021).

3.3.3.4 Taking control of the stressful situation

The fourth and final characteristic feature of socio-emotional recovery deals with students taking control of any stressful situation related to remote learning. Taking control of a stressful situation suggests taking action to overcome the situation, which results in a level of student control (Vinkers et al., 2020). Control is viewed as a student intentionally striving to achieve a set goal (Polizzi et al., 2020). Such a set goal in remote learning could be students striving towards achieving academic success during the remote-learning process. Another example of student intention could be referenced as students self-monitoring their own and their peers' academic progress during remote learning. Polizzi et al. (2020) add that the ability of a student to take control of the remote-learning experience is essential for countering existing feelings of anxiety and social isolation that are often a result of remote learning.

3.3.4 Summative perspectives related to Resilience Theory as a theoretical framework

This chapter described Resilience Theory as the suitable theoretical framework for the study (cf. 3.3). Specific attention was given to what is meant by Resilience Theory (cf. 3.2), with particular reference to “resilience as an outcome of the student’s ability to recover from adversity”.

In addition, an effort was also made to uncover the core three phases of resilience theory, namely a) the socio-emotional deteriorating phase, b) the socio-emotional adapting phase, and c) the socio-emotion. Identified features for the deteriorating phase of the resilience theory include feelings of hopelessness, anger, aggression, and frustration (cf. 3.3.1). In addition, social support networks, social resources, lecturer support, parental support, and peer support were identified as features for the adapting phase (cf. 3.3.2). The recovery phase of the resilience theory includes taking control, personal growth, accepting circumstances and feeling of empowerment, taking control, and accepting circumstances and feeling of empowerment, taking control, and accepting circumstances and feeling empowered. These features were linked to the various themes identified from the data

collected through the semi-structured qualitative survey questionnaire, the focus group discussion, and the reflective drawing exercises (cf. chapter 5)

The critical characteristic features of each phase (cf. Figures 3.3.1.1, 3.3.2.1 & 3.3.3.1) were presented in line with the applicability of the aim of the study (cf. Figure 6.1). The next chapter focuses on the research approach and methodology that was applied in the study.

CHAPTER 4:

RESEARCH APPROACH AND METHODOLOGY OF THE STUDY

4.1 INTRODUCTION

Issues surrounding the transition challenges of first-year students to HEIs and the influence of the Covid-19 pandemic on first-year students (cf. chapters 1 & 2) are frequently debated in the South African higher education context. The study aimed to investigate students' development of resilience in a first-year module in adapting to a remote-learning approach. To realise this aim, a qualitative research approach was followed, which will be elaborated on in this chapter (cf. 4.2).

Therefore, this chapter's focus is to introduce study's research approach and methodology. Figure 4.1 provides an outline of the chapter.

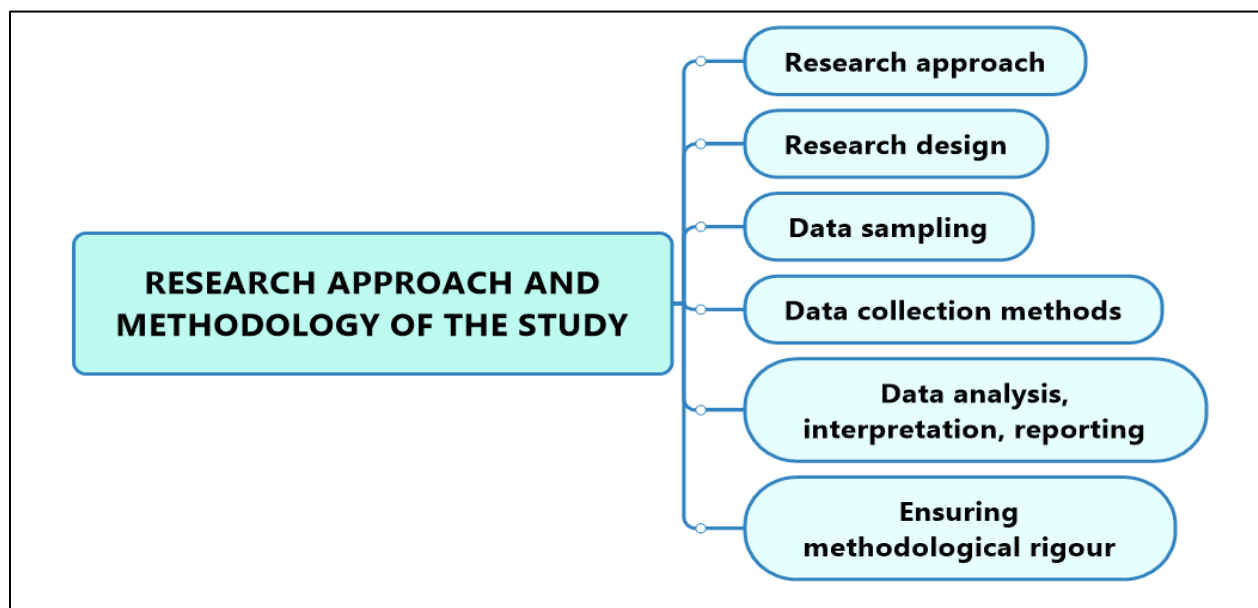


Figure 4.1: Research approach and methodology of the study

As depicted in Figure 4.1, particular attention will be given to the qualitative research approach (cf. 4.2) to systematically obtain in-depth views on first-year students' development of resilience in adapting to a remote-learning approach. In this chapter, I also justify the appropriateness of a qualitative approach (cf. 4.2). After that, the intrinsic

case study research design is conceptualised and applied (cf. 4.3) to explore the already stipulated aim (cf. 4.1). Then the researchers' ontological and epistemological stances are explained (cf. 4.3.2). A discussion on the data sampling (cf. 4.4), data collection methods (cf. 4.5), and data analysis and interpretation (cf. 4.6), as well as the trustworthiness of the data will follow thereafter (cf. 4.7). In conclusion, the chapter's summative perspectives (cf. 4.8) are also considered.

4.2 RESEARCH APPROACH

This study adopts a qualitative research approach. Qualitative research entails collecting textual data (Cohen, Manion & Morrison, 2015). A qualitative approach also allows the researcher to investigate a social phenomenon through a systematic inquiry (Teherani et al., 2014). This approach is beneficial for gathering insight into beliefs, attitudes, and reflections on people's lived experiences (Van den Berg & Struwig, 2017). DeJonckheere and Vaughn (2019) view qualitative research as a process whereby the researcher attempts to understand individuals' lived experiences. In addition, Liamputtong (2020) claims that a qualitative research approach allows participants to communicate their experiences through narratives, discussions, and interviews.

This qualitative research approach benefited the study for the following reasons. Firstly, a qualitative research approach involves events or cases (Teherani et al., 2015). Secondly, the qualitative research approach details the participants' experiences, feelings, and actions (Mohajan, 2018). Thirdly, this approach allows various data collection methods, such as focus-group discussions and interviews (Nyumba et al., 2018). Finally, the qualitative research approach assists the researcher in discovering the experiences of participants (Mack, 2005).

Given the various definitions of a qualitative research approach (cf. 1.7), using a qualitative research approach was suitable for my study, as it assisted me in making meaning of the diverse student experiences in adapting to a remote-learning environment. Furthermore, using a qualitative research approach helped the researcher to determine which strategies assisted students with the demands of remote learning.

4.3 RESEARCH DESIGN

This section focuses on the research design of the study. The following sections are discussed: i) conceptualizing a case study as a practical research design for this study (cf. 4.3.1); ii) the ontological stance of the researcher (cf. 4.3.2); iii) the epistemological stance of the research (cf. 4.3.3); and iv) the role of the research participants (cf. 4.3.3).

4.3.1 Intrinsic case study research design

This qualitative study is informed by an intrinsic case study research design. Priya (2021) views intrinsic case study research as an attempt to understand a case in its natural setting. Lawrence (2014) claims that intrinsic case study research seeks to understand a case by focusing on various case details. In addition, Buultjens et al. (2013) suggests that a case study details the story or an experience of what happened during the situation. Rahi (2017) states that a case study research design provides a written account of a problem or a case. Buultjens et al. (2015) further claims that intrinsic case studies are appropriate for telling unique stories. Crowe et al. (2011) support this view by stating that an intrinsic case study design gives an in-depth explanation or exploration of a study.

Furthermore, case-study research is beneficial when the researcher wants to answer “why” and “how” questions (Ebneyamini, 2018). Creswell (2017) suggests that a case study describes a situation involving events, people, and their interaction with the environment. Therefore, case-study research gives the researcher access to information from individuals based on their experiences, perspectives, and in-depth understanding of real-life issues (Creswell, 2017).

In this study, a case-study research design allowed the researcher to focus on a particular case. The case included 12 Bachelor of Education students in a first-year module in the FoE at the UFS and their experiences with the shift from the traditional face-to-face learning environment to a remote-learning environment. This design was deemed suitable as it focused on an investigated phenomenon. The researcher therefore intended to capture the actual lived experiences of participants under study, which in this case included adapting to remote learning (Cohen, Manion & Morrison, 2017).

4.3.2 The ontological stance of the researcher

Ontology is regarded as the study of “being” and involves the nature of reality (Al-Saadi, 2014). In addition, ontology is viewed as the assumption we make about what exists and are considered reality (Ataro, 2020). Ontology also involves questions regarding the nature of existence, the world we investigate, and the structure of reality (Ejnavarzala, 2019). Ontology is therefore understood as the researcher’s positionality within the study. It also involves how the researcher perceives the participants’ experiences in the study (Rehman & Alharthi, 2016) and is concerned with the participants' nature of reality within the study (Al-Saadi, 2014).

With these definitions of ontology in mind, I viewed reality based on the knowledge and experience that the individuals will bring to the study. I acknowledged that the participants would bring various interpretations, perspectives, and meanings related to their experiences on the shift from a face-to-face to a remote-learning environment (cf. chapter 5). I was open to learning from the participants and valued their input. I took on a facilitator role to ensure participants shared their actual experiences of how they developed resilience in adapting to remote learning.

4.3.3 The epistemological stance of the researcher

Epistemology is viewed as assumptions about knowledge bases and how it is acquired and communicated to others (Cohen, Manion & Morrison, 2017). Bryman (2016) refers to epistemology as the question of “what is” regarded as admissible in a study. Epistemological assumptions are also regarded as the theory of knowledge linked to the knowledge's nature and methods applied to gain knowledge (Mertens, 2015). Myers and Avison (2002) view it as essential for a study to be in a research paradigm. Research paradigms are the researchers’ common beliefs and understanding of a research problem (Creswell & Creswell, 2003).

The interpretivist paradigm further informs this study. Creswell and Creswell (2003) believe that the interpretivist paradigm is complex and multi-layered. In addition, a single phenomenon may have various interpretations. Rahi (2017) believes that the interpretivist

paradigm will assist the researcher in understanding how students interpret their social environment. Furthermore, the interpretivist paradigm will be essential to unravel what strategies students applied in adapting to remote learning in this study.

4.3.4 Role of the research participants

Dervin (2015) defines research participants as any group participating in a study. The participants identified in this study were 12 female Bachelor of Education students in the FoE at the UFS. These participants were ideal for the study as they lived through the experiences of shifting from the traditional face-to-face learning environment to a remote one. They expected to share their experiences with how they developed resilience during the shift to remote learning.

4.4 DATA SAMPLING

Data sampling is analysing a subset of data to explain how the data can be relatable to a more extensive data set (Leedy & Ormrod, 2019). In other words, the data generated from a study should be linked to a more comprehensive and broader population (Lawrence, 2014). In selecting a data sample, a portion of the broader population should be selected to be studied (Etikan et al., 2016). This process involves deciding the type of individuals to be studied in a specific social context (Lawrence, 2014).

Given this understanding of data sampling, the researcher selected student teachers as participants from the FoE at the UFS to participate in the study. These participants were selected to participate in the study, since they would explain how they experienced the shift from a face-to-face to a remote-learning environment. This study adopted a purposive sampling technique, since the researcher deliberately decided on which participants to include to ensure that rich data were collected (Benoot et al., 2016).

Benoot et al. (2016) claim that the strength of purposeful sampling for the in-depth study lies in selecting information-rich cases. Lawrence (2014) supports this view and argues that purposeful sampling is suitable for information-rich cases. The purposeful sampling in this study entailed 12 female students in a first-year module who studied remotely in

the Department of Social Sciences and Commerce Education in the FoE at the UFS. I deemed this category of students to be the best suitable for providing relevant and rich data to my study. The participants in the study were easily accessible for the following reasons. Firstly, I am an employee of the UFS, and I am familiar with the FoE. Secondly, I was an honours student in the faculty and thus know the lecturers. Thirdly, the researcher approached a lecturer from the FoE at the UFS for access to the research participants.

4.5 DATA COLLECTION METHODS

Data collection can be defined in various ways (Kabir, 2016; Paradis et al., 2016). Wilson and Fox (2013) view data collection as gathering information from relevant sources to solve a research problem or answer a research question. Kabir (2016) has a similar view of data collection as measuring and gathering information to answer research questions. Paradis et al. (2016) view data collection as an instrument for collecting information through observation, interviews, or any helpful data collection tool.

Given these various definitions, I viewed data collection as a process of interacting with research participants to respond to the research objectives and questions. The researcher aimed to capture rich data and translate it into credible data analysis to respond to the study's main research question. This study used three data-collection techniques to gather qualitative data: a qualitative questionnaire survey (cf. 4.5.1), a focus group discussion (cf. 4.5.2), and a reflective drawing exercise (cf. 4.5.3). The following sections elaborate on the three data-collection techniques.

4.5.1 A semi-structured qualitative questionnaire survey (cf. Appendix A)

Given the implications of Covid 19-pandemic on student engagement (Ali, 2020), the researcher opted to use a qualitative questionnaire survey, a focus-group discussion, and a reflective drawing exercise to amplify the participants' experiences to respond to research objectives 2 and 3 of the study. A semi-structured qualitative questionnaire survey was helpful in responding to both secondary research questions.

Furthermore, a semi-structured, qualitative questionnaire survey allowed the participants to reflect on how they experienced the shift from a face-to-face to a remote-learning environment. Braun and Clarke (2006) claim that a semi-structured, qualitative questionnaire survey allows the researcher to pose open-ended questions to research participants. The semi-structured, qualitative questionnaire survey was sent to participants via an online platform. The participants were given two weeks to complete the survey, whereafter the survey was closed. The raw data were extracted from the survey platform (cf. Annexure B).

4.5.2 Focus group discussion

My study further attempted to gather data through a focus-group discussion. The focus-group discussion occurred in an informal setting (Lawrence, 2014). This focus group aimed to address the potential data limitations of the semi-structured qualitative questionnaire survey. The focus-group discussion took place in a face-to-face set-up where it was recorded on an audio recorder and the researchers' mobile phone for backup. The focus group attempted to fill gaps in the semi-structured, qualitative questionnaire survey and gain more detailed information to short answers. Covid-19 protocols were followed during the face-2-face focus group discussion.

4.5.3 Reflective drawing exercise (cf. chapter 5)

Reflective drawing exercises are viewed as the application of drawings to support the research process (Calvo, 2017). Interestingly, Calvo (2017) adds that reflective drawings are used in two different phases of the reflection process, namely i) recording data during fieldwork, known as a reflection in action, and ii) recalling lived experiences, which close the gap between practice and theory. My study applied the latter (cf. chapter 5).

4.6 DATA ANALYSIS, INTERPRETATION & REPORTING

Data analysis is characterized by a process whereby the researcher selects, categorizes, and interprets data in a logical explanatory manner (Williams, 2007). Cohen, Manion and Morrison (2017) view data analysis as a process through which the researcher

determines themes, patterns, or recurrence from the data collected. Therefore, the researcher summarized the collected data in common phrases, words, patterns, or themes (Creswell & Creswell, 2017). Vaismoradi et al. (2016) have a similar understanding of data analysis as the grouping of data into patterns or themes and reporting these patterns or themes in written format (Braun & Clarke, 2006; Maguire & Delahunt, 2017). The following paragraph discusses the sequential steps for analysing the semi-structured, qualitative questionnaire survey, focus-group discussion, and reflective drawing exercise (Creswell & Creswell, 2017).

The data from the focus-group audio recording were transcribed verbatim with the help of software such as Microsoft Word. McGrath et al. (2019) refer to verbatim transcribing as the word-by-word typing of audio data. The researcher read the transcriptions a few times to ensure the audio was recorded correctly. The transcribed data in word format were combined with the data from the semi-structured qualitative questionnaire surveys. Pseudonyms were assigned to the participants to ensure anonymity. Grouping data organised thematic coding into various concepts or themes (Lawrence, 2014). Thematic coding refers to assigning short, descriptive words to data collected (Lester et al., 2020). The researcher also made use of colour coding to highlight similar responses.

Furthermore, the qualitative data were categorized according to similar responses under each research question using the cut-and-paste function in Microsoft Word. The researcher reviewed some themes to see which could be separated, combined, and scrapped. This method was used to determine the overall themes. I narrated the thematic analysis to convince the reader of the merit and validity of the analysis. According to Creswell and Creswell (2017), it is essential to tell a compelling story by arguing against the backdrop of the research question. The data were collected, analysed, and interpreted in a way that did not compromise respondents' identities. Codes like "P1" was used for each respondent's responses. In addition, the researcher interpreted the reflective drawing exercises and linked them to the identified themes of the collected data (cf. chapter 5).

4.7 ENSURING METHODOLOGICAL RIGOUR

Johnson, Adkins and Chauvin (2020) view methodological rigour as a fundamental aspect of ensuring the quality of research. Methodological rigour refers to the trustworthiness of the study. Trustworthiness was done by testing the findings of the analysed data to determine how credible the data were (Creswell & Creswell, 2017). Lincoln and Guba (1985, in Johnson et al., 2020) claim that there are four criteria for determining the overall trustworthiness of qualitative research, namely i) credibility (cf. 4.7.1), ii) transferability (cf. 4.7.2), iii) dependability (4.7.3), and iv) confirmability (4.7.4). The researcher discusses these concepts next.

4.7.1 Credibility

Credibility is defined as an attempt to evaluate whether the research findings depict a true reflection of the participants' views (Cope, 2014). In other words, whether the readers believe what the author reports is accurate (Kyngäs, Kääriäinen& Elo, 2020). Interestingly, Korstjens and Mose (2018) view credibility as the researcher responding to the study's plausibility and suitability. Cope (2014) advises the researcher to represent data truthfully, depicting the participants' views, which will ensure credibility. In other words, the researcher must transparently convey the research findings to ensure that the reader makes informed decisions about the credibility of the research.

The PDF report (Annexure B) from the semi-structured qualitative questionnaire survey is attached to ensure the study's credibility. Interested readers, as well as examiners, will therefore be able to have access to the data reported.

4.7.2 Transferability

Transferability refers to the researchers' interpretation of data and whether it can be transferred to other similar contexts (Daniel, 2019). In other words, it concerns whether research findings are relevant to other contexts and fields (Kyngäs et al., 2020). Hays and McKibben (2021) define transferability as the level at which qualitative research results can be applied to other contexts. On the other hand, McGinley et al. (2021) refer

to transferability as the extent to which conclusions were drawn and used in similar contexts.

To warrant transferability to my study, I purposefully selected my research participants. Furthermore, I ensured that participants were well informed about the aim of my study, which was to investigate the experiences of students' development of resilience in a first-year module in adapting to remote learning. In addition, the participants were informed of my study's expected outcomes.

4.7.3 Dependability

Kyngäs et al. (2020) claim dependability to be a review of the quality of the collected data, analysed data, and conceptual coherence. Moreover, dependability concerns whether the same results would be obtained if the researcher observed the same audience again (Kyngäs et al., 2020). In other words, when documenting findings, the researcher must keep the changing nature of research in mind (Daniel, 2019).

I applied dependability by sending the same semi-structured qualitative questionnaire survey to all participants. In other words, participants answered the same questions. Therefore, the data collected, analysed, and narrated are dependable, due to similar questions answered by all participants. The latter also reflects the reliability and consistency of my study.

4.7.4 Confirmability

Confirmability refers to the level at which others can substantiate findings (Sumrin & Gupta, 2021). Vestøl et al. (2020) view confirmability as the degree to which study findings are formed by participants rather than a researcher's narrow interests or motivations. Moreover, it is determined when credibility, transferability, and dependability are achieved (Vestøl et al., 2020). In other words, it concerns how data are linked with the findings (Kyngäs et al., 2020). Nguyen et al. (2021) advise researchers to provide readers or examiners with a step-by-step trail on how the research unfolded. According to Ngunyen

et al. (2021), this trial will permit scholars to follow the study's logical process, match it to research aims, and link it to the findings.

To strengthen the confirmability of my study, I narrated the steps and reviewed the data throughout my study. The data were presented in written format and were shared with the study participants. The presentation and sharing of data ensure data correspondence. Therefore, my study conveys a data trail displaying the data collection and analysis approach.

4.8 SUMMARY OF THE CHAPTER

This chapter described the research methodology and approach used in the study to investigate the experiences of students' development of resilience in a first-year module in adapting to remote learning in the FoE at the UFS. Detailed information on the i) Research approach (cf. 4.2); ii) Research design (cf. 4.3); iii) Data sampling (cf. 4.4); iv) Data collection methods (cf. 4.5); v) Data analysis, interpretation and reporting, as well as (cf. 4.6) vi) Ensuring methodological rigour was provided (cf. 4.7).

Chapter 5 focuses on the presentation of the analysed data and the discussion and interpretation of my research findings.

CHAPTER 5:

PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA

5.1 INTRODUCTION

The study aimed to investigate students' experiences regarding resilience development in a first-year module in adapting to remote learning in the FoE at the UFS. As a means to respond to the aim of the study, the research was guided by three objectives, namely to:

- i) determine how resilience is conceptualised within the context of higher education (cf. 5.2);
- ii) obtain insights through qualitative questionnaire survey, focus group discussion, and reflective drawing exercises on students' experiences with remote learning within a first-year module (cf. 5.3); and
- iii) explore strategies the FOE can apply to assist students with remote learning (cf. 5.4).

Guided by the three objectives of my study, relevant literature was consulted, themes were formulated from the literature search, and empirical data were collected through a qualitative questionnaire survey (cf. 5.3. and 5.4.), focus-group discussion (cf. 5.3 and 5.4) and reflection drawing exercise (cf. 5.3 and 5.4). This qualitative questionnaire survey, focus-group discussion, and reflection drawing exercises were completed by 12 student teachers from the Department of Social Sciences and Commerce Education in the FoE at the UFS.

An opening discussion is provided, presenting relevant literature perspectives related to the formulated themes. The researcher then presents the empirical evidence in the form of verbatim transcripts, verbal responses from the focus-group discussion and participant interpretations of reflective drawings, including written words, phrases and drawings that correlate to the relevant literature perspectives. Finally, an in-depth analysis is provided

in writing against the backdrop of the aim of the study. Ultimately, a summary of the main findings for each of the objectives is provided.

5.2 REALIZING OBJECTIVE 1: DETERMINING HOW RESILIENCE IS CONCEPTUALISED WITHIN THE CONTEXT OF HIGHER EDUCATION

The researcher responded to research objective one by performing an in-depth literature study (cf. 3.3.1). The literature study focused on what is meant by student resilience within the context of higher education. In a nutshell, student resilience within the context of HE is considered a student's ability to adapt and overcome difficult situations. Student resilience is also viewed as successfully adapting to challenging situations, primarily through experience of emotional, behaviour, mental, internal, and external stressors. The shift from face-to-face teaching and learning to remote teaching and learning is classified as the stressor in the context of this study (cf. 5.3 and 5.4).

The researcher identified three key phases underpinning the students' resilience in HE: i) the *socio-emotional deteriorating phase*, ii) the *socio-emotional adapting phase*, and iii) the *socio-emotional recovering phase*. In addition to these phases, the researcher also identified elements linked to the three phases. Elements related to the socio-emotional deteriorating phase include *anger, hopelessness, aggression, and frustration* (cf. 3.4.1). In addition, identified elements associated with the socio-emotional adapting phase include the *availability of students' social support networks, lecturer support, parental support, and peer support* (cf. 3.4.2). Furthermore, elements associated with the socio-emotional recovery phase include *personal growth, accepting circumstances, empowerment, and taking control of the stressful situation* (cf. 3.4.3).

Below is a summative illustration (cf. Figure 5.1) of the various critical points regarding students' resilience in HE (cf. 3.3.1; 3.4).

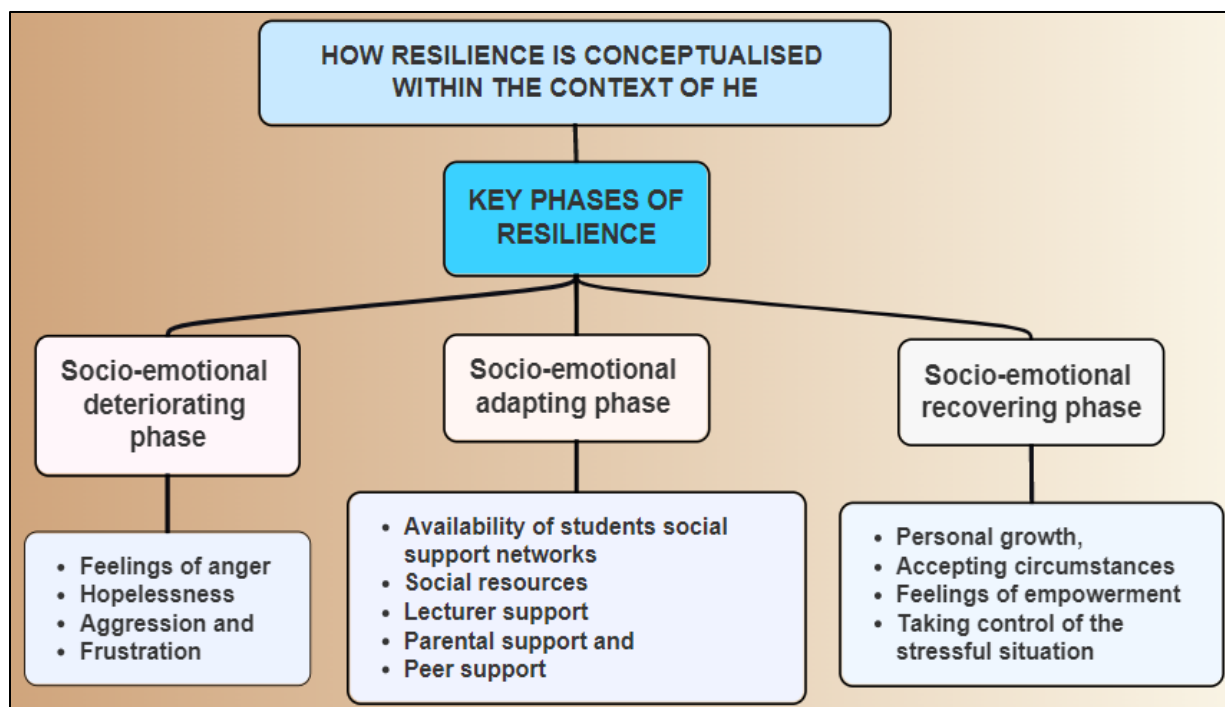


Figure 5.1: Summative illustration of the various and key points regarding students' resilience in HE

Findings from the study suggest that feelings of anger, hopelessness, aggression, and frustration were present in the students' stress caused by the shift to remote teaching and learning (cf. 3.4.1). To adapt to the stressful situation, students relied on student social support networks, social support networks, social resources, lecturer support, and parental and peer support. This reliance on the various support mechanisms led to the student's personal growth, acceptance of circumstances, feelings of empowerment, and taking control of the stressful situation. Findings also suggest that the students' resilience to succeed academically with the first-year module was shaped by various personal beliefs, determination to succeed, enhanced emotional insight, the ability to learn and reflect, the use of personal coping mechanisms, and a sense of optimism.

5.3 REALIZING OBJECTIVE 2: TO OBTAIN INSIGHTS INTO STUDENTS' EXPERIENCES WITH REMOTE LEARNING WITHIN A FIRST-YEAR MODULE

This section aimed to determine how students experienced remote learning, thus responding to the study's second objective. A semi-structured qualitative questionnaire

survey was sent online to 12 participants to investigate how students developed resilience in adapting to a remote-learning environment in a first-year module. In addition to the semi-structured qualitative questionnaire survey, a focus-group discussion, accompanied by a reflective drawing exercise, further yielded rich data on the second and third objectives of the study. This approach resulted in the triangulation of the qualitative data of the study. Several themes were formulated from these three data collection techniques that depict the students' experiences with remote learning.

In an attempt to obtain insights on students' experiences with remote learning within a first-year module, the following seven themes emerged from the data, namely students' experiences:

- i) Associated with adaptability during remote learning (cf. 5.3.1),
- ii) Related to data/internet connectivity (cf. 5.3.2),
- iii) Related to the access to computers during remote learning (cf. 5.3.3),
- iv) Associated with lecturer support during remote learning (cf. 5.3.4),
- v) With student social isolation during remote learning (cf. 5.3.5),
- vi) Encountering personal growth due to remote learning (cf. 5.3.6); and
- vii) Influence of remote learning on students' academic progress (cf. 5.3.7).

The diverse responses to this research objective (cf. 5.3) clarified the level of socio-emotional deterioration, adaption and recovery that the participants encountered in their journey to develop resilience for a remote-learning approach. Figure 5.2 provides an overview of the themes that emerged from the second research objective. Each of these themes is discussed in detail (cf. 5.3.1 – 5.3.7).

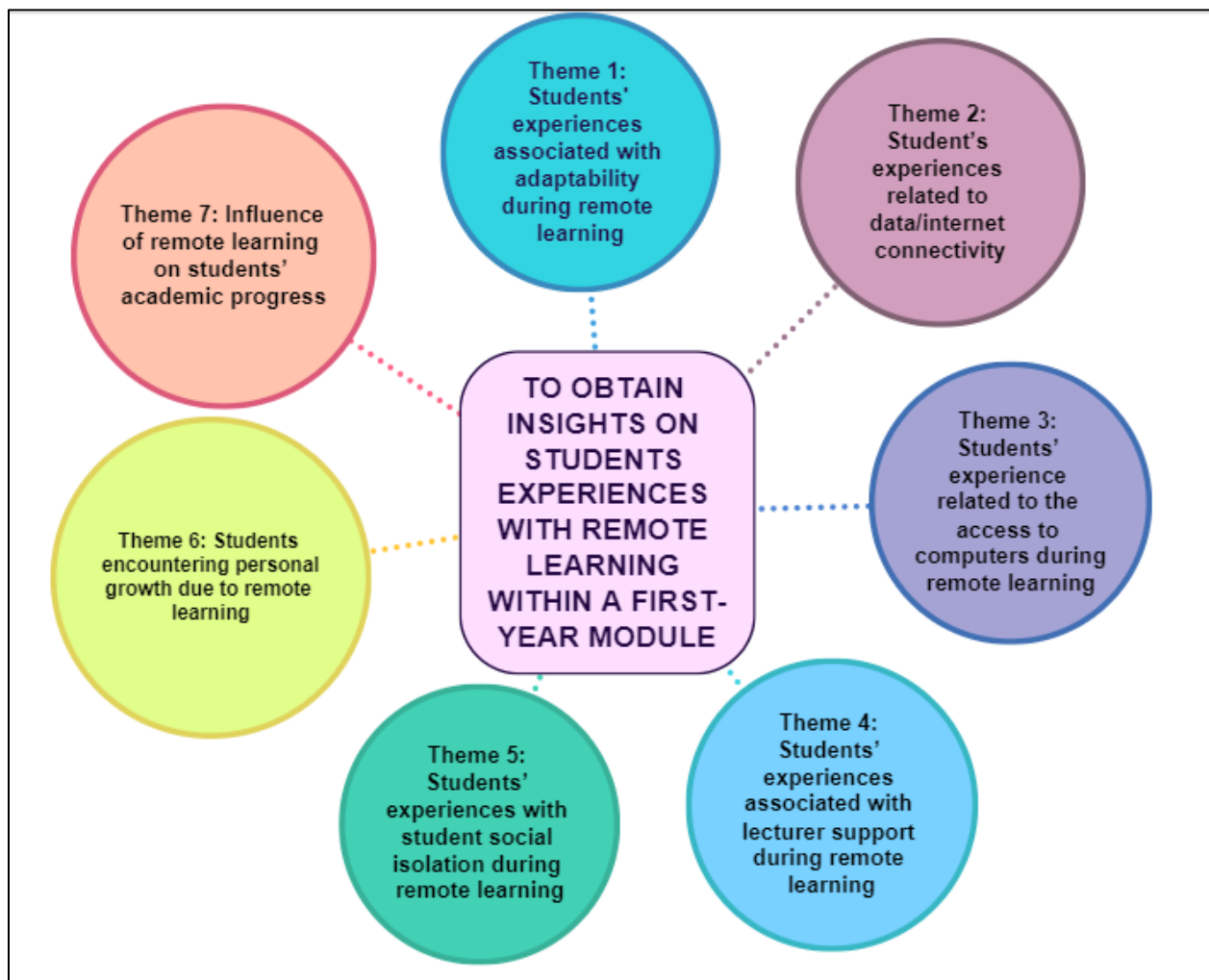


Figure 5.2: Overview of the themes developed to achieve research objective 2

5.3.1 Theme 1: Students' experiences associated with adaptability during remote learning

The first theme for research objective 2 deals with the *students' experiences associated with adaptability during remote learning*. Adaptability is how an individual can adjust thoughts, behaviours, and feelings in response to an unexpected situation (Martin et al., 2013). With this understanding of adaptability during remote learning in mind, some participants had the following to say as they responded to the questions in the semi-structured qualitative questionnaire survey:

P1: "At 1st it was very difficult to adapt ..."

P3: *“At first it was confusing and I was panicking, but as time went by it became better.”*

P5: *“For the first time it was so difficult and frustrating ...”*

A closer look at these responses draws one’s attention to the feelings of hopelessness and frustration regarding the remote-learning approach. This assumption can be confirmed with the phrases *“very difficult to adapt”* (P1), *“... confusing and I was panicking”* (P3), and *“so difficult and frustrating”* (P5). These responses are characteristic features of the socio-emotional deteriorating phase (cf. 3.3.1), regarded as the first stage of the resilience theory. Patterson and Kelleher (2005) explain that the socio-emotional deteriorating phase is considered a state of despair and lack of hope. This phase includes feelings like hopelessness, anger, aggression, and frustration (cf. 2.7.2).

In addition to these semi-structured qualitative questionnaire survey entries, two participants expressed frustration with the remote-learning approach during the focus group discussion, that is demonstrated in the following verbatim of two participants:

P1: *“it was really hectic and difficult at first, you know.”*

P2: *“It was so difficult when we moved from doing the face-to-face thing to the online ...”*

During the focus-group discussion, participants were also expected to engage in a reflective drawing exercise where they were tasked to put their thoughts, feelings, beliefs, and emotions regarding the remote-learning experience into personalised drawings. This exercise allowed the participants to share their subjective and individualised remote-learning experiences more creatively. Following this exercise, correlations were made between their drawings and their verbal responses shared.

The verbal responses *“it was really hectic and difficult at first”* and *“... it was so difficult when we moved from doing the face-to-face thing ...”* seemed to be captured in two reflective drawings, as witnessed in Figure 5.3 and Figure 5.4.

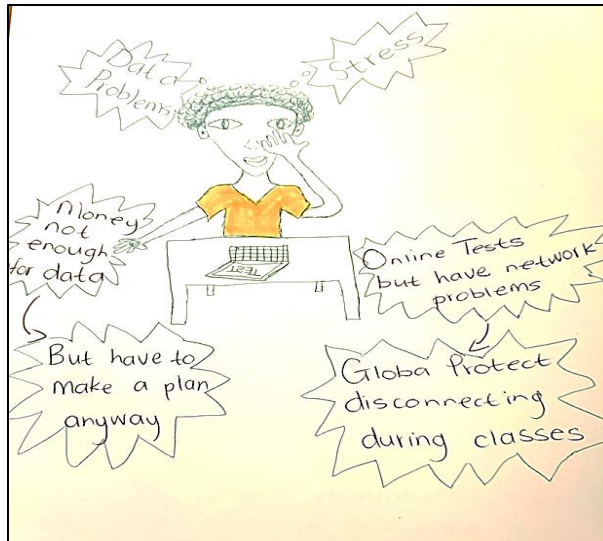


Figure 5.3: Photographic evidence of a reflective drawing completed by Participant 1

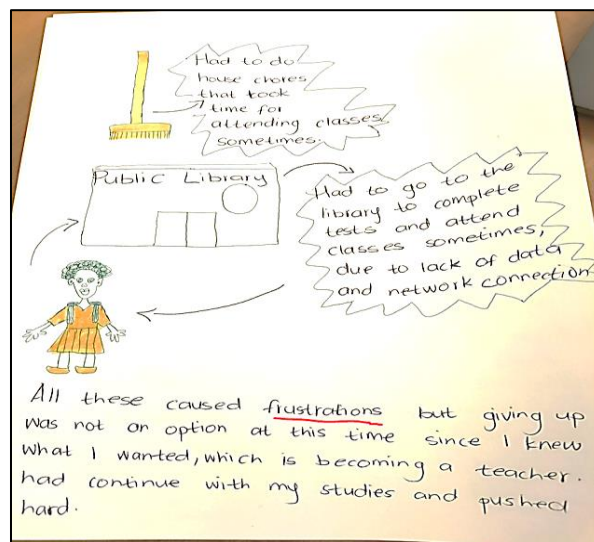


Figure 5.4: Photographic evidence of a reflective drawing completed by Participant 2

A closer look at both illustrations suggests that the participants encountered feelings of frustration and stress. For example, in photographic evidence of reflective drawing 5.3, the participants referred to the phrase “... *all these caused frustrations*”. In addition to this example, another participant intentionally made a drawing reflecting stress in a thought bubble. All three of these written responses from the qualitative questionnaire survey, focus-group discussion, and reflective drawings suggest feelings of hopelessness due to the stressful situation caused by the remote-learning approach.

Hopelessness is associated with experiences of unexpected stressful events (cf. 2.6.2.1). These feelings refer to an unpleasant emotional state within the socio-emotional deteriorating phase of the Resilience Theory. However, this state of despair caused by a stressful situation is regarded as temporary (cf. 2.6.2). In addition, it seemed as if the participants became more optimistic and resilient in their experience regarding adaptability to the remote-learning approach as time went by. This claim can be supported by phrases made by Participants 1, 7, and 12, such as “... *but when time went by, everything just fell in place*”; “*It was easy to adapt to the situation*”; and “... *you just need to push*”. These optimistic and resilient viewpoints relate well with the view of Howard and Johnson (2000) when they suggest that some individuals can cope and adapt, regardless of the challenging or difficult situation. As soon as coping and adapting to difficult situations occur, individuals usually move into the recovery phase (cf. 2.6.4.2).

5.3.2 Theme 2: Students’ experiences related to data/internet connectivity

The second theme for research objective 2 that was identified deals with *students’ experiences related to data/internet connectivity*. The students highlighted the need for data and stable internet connectivity as a challenge during remote learning. The following statements from the semi-structured qualitative questionnaire survey entries confirmed this claim:

P1: “Data some of us don’t have money to buy data to attend class.”

P2: “At the beginning we struggle a lot to attend class [we had] such issues like data, [nertwork], etc.”

P12: “Well except for the data, and connectivity issues..

These entries show that access to data and internet connectivity is vital for ensuring effective remote learning. This claim is supported by phrases like, “*don’t have money to buy data to attend class*”; “... *struggle a lot to attend class such issues like data, [nertwork]...*”; and “*the data, and connectivity issues*”. Besides these entries in the semi-structured qualitative questionnaire survey, one participant from the focus-group discussion also substantiated these views by stating the following:

P2: "... you have to do the data to write the test, assignment, all of it ..."

In addition to these verbal responses, non-verbal data in the form of a reflective drawing by Participant 7 also seemed to point to the issue associated with bandwidth and data, as witnessed in photographic evidence below.



Figure 5.5: Photographic evidence of a reflective drawing completed by Participant 1

In addition to the issue associated with bandwidth and data, the drawing also makes it apparent that the remote-learning experience had financial implications on their academic progression. For example, the student expressed how the remote-learning experience was financially demanding.

These views that stem from the semi-structured qualitative questionnaire survey focus-group discussion, and reflective drawing exercises align well with the view of Williamson, Eynon and Potter (2020), when it is claimed that stable internet connectivity and bandwidth are critical to an online remote-learning experience (cf. 2.4.2). This claim was reiterated by Participant 3, who mentioned that "*you always had to have data, and you need a computer to attend classes*". This response by Participant 1 indicates the level of adversity that the participants encountered due to the shift to remote learning. The assumption is that this level of adversity – being unable to attend classes due to a lack of data/internet connectivity – influenced the socio-emotional deterioration of the student (cf. 2.6.2).

5.3.3 Theme 3: Students' experience related to access to computers during remote learning

The third theme derived from the students' experiences for research objective 2 deals with *students' experiences related to access to computers during remote learning*. In a semi-structured qualitative questionnaire survey, participants reported having struggled with access to laptops and ended up using their cell phones. The following verbatim statements confirm this:

"P1: First time I felt like I need[ed] to quit because I was struggl[ing] with data[,] but after a while University gives us a data but still my phone were kept on kicking me out when I'm in a class, I bought [a] smartphone and my problems [became] better ..."

P7: "One thing i know [is] if you don't use [a] smartphone or laptop for collaborations classes you will not be able to attend session."

P11: "yes it was enough data but I could not apply for [a] laptop I had to use my phone."

A closer look at the participants' responses points to a lack of access to laptops as a need for remote learning. This claim is confirmed with phrases like *".... if you don't use smartphone or laptop for collaborations classes you will not be able to attend session"* and *"... [I] could not apply for [a] laptop I had to use my phone"*.

Participants also made statements like, *"First time I felt like I need to quit because I was struggl[ing] with data...."* and *"... you will not be able to attend a session"*. These statements are prime examples of factors associated with the socio-emotional deteriorating phase negatively affecting students' resilience. The assumption can be made that students encountering such adversity are "on the back foot" in terms of falling behind the academic schedule compared to their peers. These statements are supported by a reflective drawing from the focus-group discussion, as illustrated in photographic evidence in Figure 5.6 below:

enhanced through continuous lecturer-student communication (cf. 2.3.3.4). With this understanding of lecturer support in mind, some participants had the following to say:

P1: *“If I was unsure about something, the lecturers were always there to help.”*

P6: *“The lecturers gave us enough time to do assignments, write tests and sometimes we had another class so that the students could ask questions to the lecturers and that helped a lot of people.”*

P2: *“... support of fellow student and Le[c]tures.”*

When examining the data from the semi-structured qualitative questionnaire survey entries, it is clear that students received support from their lecturers. This statement is confirmed with the phrases *“the lecturers were always there to help”*; *“... The lecturers gave us enough time to do assignments, write tests, and sometimes we had another class so that the students could ask questions to the lecturers and that helped a lot of people”*; and *“support of fellow student and [le[c]tures]”*. Furthermore, two participants from the focus-group discussion indicated receiving support from lecturers. They had the following to say:

P6: *“... you could, uhm, email the lecturer if you have a problem with something.”*

P9: *“... and they are there when you need them. Even if you have a difficult[y] on the mission, you can send an email to the lecturer and the lecturer will come back to you.”*

In addition to these verbal responses, a reflective drawing by Participant 5 also suggests that lecturers were supportive of their quest for remote learning. This claim can be witnessed in Figure 5.7 below.

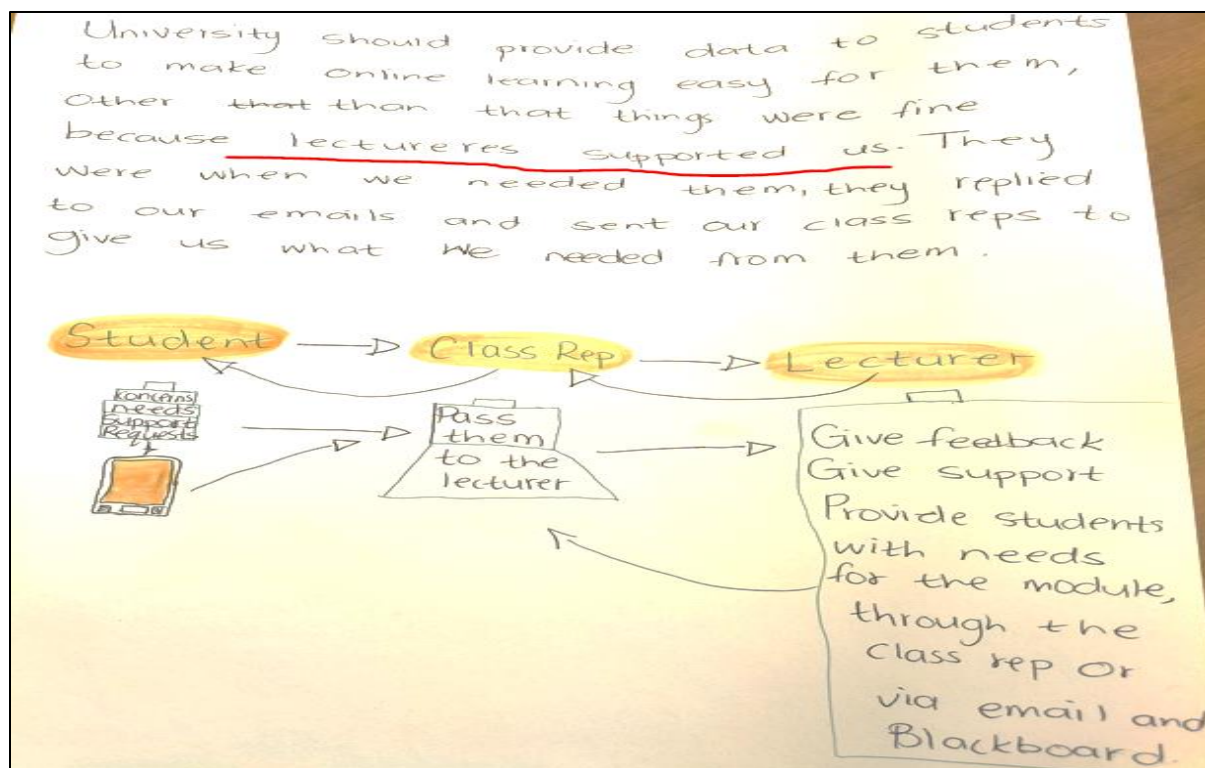


Figure 5.7: Photographic evidence of a reflective drawing completed by Participant 5

When examining the illustration, it is evident that students received support from lecturers as a support mechanism to cope with the challenges experienced by the demands of remote learning. Lecturer support is essential for students to adapt to remote learning (cf. 2.6.3.5). This view aligns well with that of Kumar et al. (2018), who argue that lecturer support enables students to stay on track with remote learning. This support can be viewed as the lecturers' effort to assist students in gaining control over the situation, which links to the socio-emotional adapting phase (cf. 3.4.3.5).

5.3.5 Theme 5: Students' experiences with student social isolation during remote learning

The fifth theme for research objective 2 that informs the students' experiences is *students' social isolation during remote learning*. Student social isolation is viewed as a lack of contact, relationships, and social interaction with other students (Boaz & Boaz, 2006). Nicholson (2009) claims that student social isolation may result in students feeling isolated due to a lack of social interaction, engagement, and minimal contact with fellow

students. For this reason, Bozkurt et al. (2020) suggest that students manage their time carefully and be self-disciplined. This action may foster resilience during remote learning, resulting in adapting to a stressful situation (cf. 3.4.3). With this understanding of student social isolation in mind, the participants had the following to say:

P2: *“I missed student life, being on campus, being independent away from home and making new friends”.*

P4: *“I was aware that the university had no choice but to keep us safe at home but I missed student life.”*

P10: *“When I’m at the campus, I don’t procrastinate.”*

A closer look at these responses from the semi-structured qualitative questionnaire survey entries draws one’s attention to feelings of procrastination and longing for student life. It also suggests that students longed for meaningful relationships with fellow students. This assumption makes it apparent that the student encountered a level of hopelessness due to a lack of physical interaction with fellow students. This assumption can also be linked to the socio-emotional deteriorating phase of the resilience theory (cf. 3.4.2.1).

Interestingly, despite the social isolation, some students reported remote learning as a positive experience. For example, students reported studying from home and having flexibility as a positive experience. Remote learning was also experienced as convenient and less expensive. This claim is confirmed with the following verbatim phrases, *“It was cheaper for me to study from home”*; *“.... Not having to go anywhere to attend class”*; and *“Positive experience on my side is on the remote learning you can attend class while you are at home because of the advance of technology”*. These views follow Neenan (2017), who claims that a student experience positive change in attitudes during this phase of resilience. This positive change in attitude is linked with the socio-emotional adapting phase (cf. 3.4.3).

5.3.6 Theme 6: Students encountering personal growth due to remote learning

The sixth theme for research objective 2 was *the students' personal growth due to remote learning*. Personal growth enables individuals to reach a positive state after adversity (cf. 3.4.4.1). In other words, individuals return to a previous or improved functioning. This positive state may have resulted in feelings of empowerment (cf. 3.4.4.3) and acceptance of circumstances (cf. 3.4.4.2). With this understanding of personal growth in mind, participants had the following to say:

P4: *"I think I developed a lot."*

P8: *"It helped a lot and boosted my self-confidence."*

P5: *"It affected me in a good way. It learned me to do many things at the same time, manage a part-time job and to do my studies. It also taught me self-discipline because you are on your own - you have to sit down and do the work."*

P6: *"It definitely helped my personal growth because I had to be more disciplined and had to manage my time accordingly."*

By exploring these responses, it is clear that students underwent personal growth by being self-disciplined regarding time management during remote learning. This claim can be confirmed with the following verbatim phrases: *"I think I developed a lot"*; *"It also taught me self-discipline because you are on your own – you have to sit down and do the work"*; and *"It definitely helped my personal growth because I had to be more disciplined and had to manage my time accordingly"*. These three phrases point to students having developed skills to persevere with remote learning. In addition, they also developed time management skills, ensuring a positive teaching and learning experience.

These statements from the participants align well with the view of Sisto (2019), who states that personal growth cultivates perseverance. Broadbent (2017) regards time management and self-discipline as essential for a practical remote-learning experience. These views of scholars imply that students persevere despite difficult situations caused by the remote-learning experience. This perseverance can be understood as students

taking control of stressful situations (cf. 3.4.4.4). Moreover, personal growth is a characteristic of the recovery phase (cf. 2.6.4.1), as claimed by Patterson and Kelleher (2005).

5.3.7 Theme 7: Influence of remote learning on students' academic progress

The final theme established for research objective 2 from the students' experiences deals with *the influence of remote learning on students' academic progress*. Participants' seemingly experienced remote learning in various ways. Some participants reported the following experiences:

P10: "My marks decreased quite drastically ..."

P11: "... my marks was decreasing."

P10: "... negative in a sense that everything happened fast ..."

A closer look at the verbatim quotes of the participants from the semi-structured qualitative questionnaire survey indicates a shared negative experience with remote learning. This claim is confirmed with verbatim phrases such as *"My marks decreased quite drastically ..."*; *"... my marks was decreasing"*; and *"...negative in a sense that everything happened fast"*. These phrases point to the negative effect of remote learning on students' academic progress during remote learning.

Work done by Griffiths (2016) claims that the negative impact on engagement with remote learning can be blamed on students' readiness to engage with remote learning. The shift from face-to-face to remote learning happened abruptly (cf. 2.2.3). This claim can be associated with the socio-emotional deteriorating phase of the resilience theory.

However, some respondents reported a positive effect on their remote-learning experience. The following verbatim phrases support this claim:

P8: "It affected me positively. I did much better in my studies."

P9: "It helped a lot. Also in the grades everything was just great."

P10: *“Both positive and negative, positive because I learned to adapt [a]nd compromise.”*

With a closer look at the responses provided by Participants 8, 9, and 10, it is evident that remote learning was not entirely experienced negatively but positively. This claim is supported by phrases such as, *“It affected me positively. I did much better in my studies”*; *“It helped a lot. Also in the grades everything was just great”*; and *“Both positive and negative, ... positive because I learned to adapt [a]nd compromise”*.

5.3.8 Summative perspectives regarding objective 2

The primary focus of research objective 2 was to investigate how students experienced remote learning within the first-year module in the FoE. The diverse responses to this research objective clarified the level of socio-emotional deterioration, adaption, and recovery the participants encountered in their journey to develop resilience for a remote-learning approach.

Given the responses of research participants from the semi-structured qualitative questionnaire survey, a focus-group discussion, accompanied by a reflective drawing exercise, it seemed as if their experiences revolved around the following themes,

- i) experiences associated with adaptability during remote learning;
- ii) students’ experiences related to data/internet connectivity;
- iii) students’ experience related to the access to computers during remote learning;
- iv) students’ experiences associated with lecturer support during remote learning;
- v) students’ experiences with student social isolation during remote learning;
- vi) students encountering personal growth due to remote learning and vii) Influence of remote learning on students’ academic progress.

Given these experiences associated with the remote-learning approach, the next step in the research project will be to focus on the suggested institutional support strategies that the participants applied when confronted with the demands of remote learning,

responding to the third research objective of the study. Responding to this research objective indicated the level of socio-emotional deteriorating, adapting and recovery the participants endured as part of their developmental resilience to a remote-learning approach.

5.4 REALISING OBJECTIVE 3: TO EXPLORE THE INSTITUTIONAL SUPPORT STRATEGIES FIRST-YEAR STUDENTS APPLIED WHEN CONFRONTED WITH THE DEMANDS OF REMOTE LEARNING

This section explores the institutional support strategies the first-year students applied when confronted with the demands of remote learning. Several themes were derived from the data collected from the semi-structured qualitative questionnaire survey, a focus-group discussion, and a reflective drawing exercise.

To realize objective 3, the following themes were formed:

- i) The provision of ICTs for a remote-learning experience (cf. 5.4.1);
- ii) The use of personalised coping mechanisms during remote learning (cf. 5.4.2);
- iii) The reliance on parental support structures during remote learning (cf. 5.4.3);
- iv) The availability of peer support structures during remote learning (cf. 5.4.4);
- v) Access to relevant institutional support structures offered by the UFS during remote learning (cf. 5.5.5).

In responding to this research objective, the researcher will be able to report on the supportive strategies used by the participants that enabled them to make a socio-emotional recovery from the aspects of adversity caused by remote learning. Exploring these supportive strategies will be beneficial in describing how the students developed resilience during a remote-learning approach. Figure 5.8 below summarises the themes developed to achieve research objective 3.

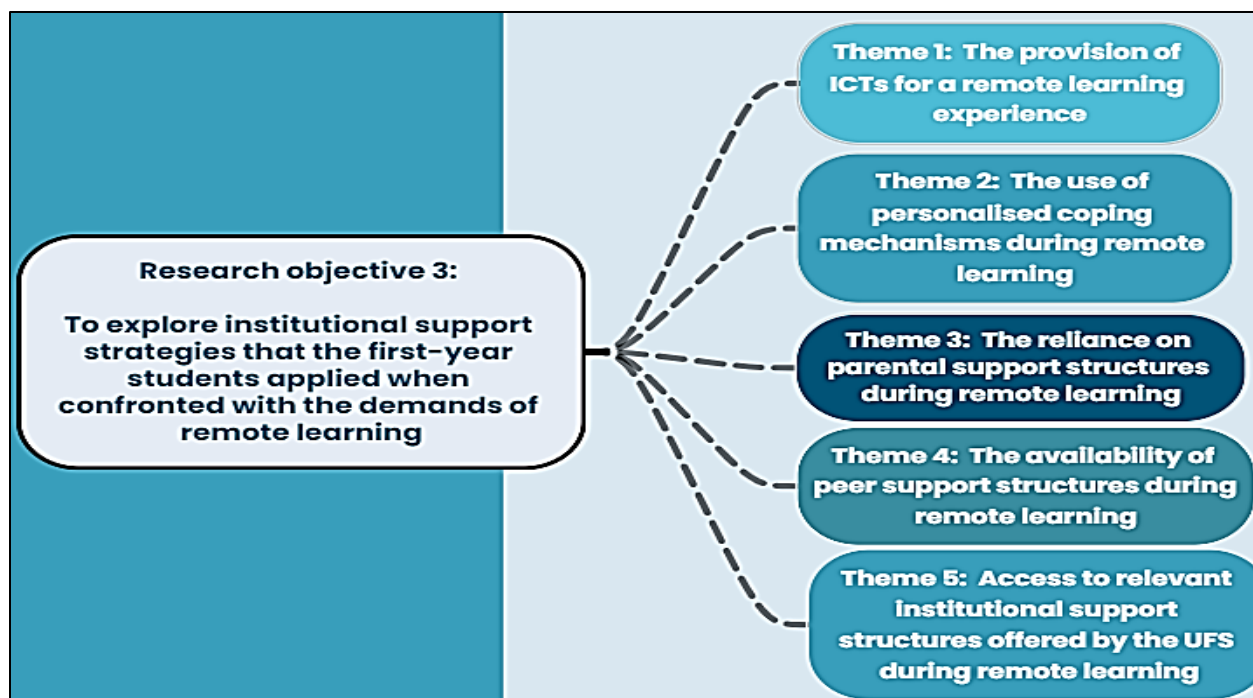


Figure 5.8: Overview of the themes developed to achieve research objective 3

5.4.1 Theme 1: The provision of ICTs for a remote-learning experience

The first theme that was identified for research objective three from the data was *the provision of ICTs for remote learning*. There is a common belief that remote learning requires particular technology (cf. 2.2; 2.2.3). This claim is supported by the following verbatim phrases offered by the participants as they responded to the semi-structured qualitative questionnaire survey:

P3: *"I experienced that you always had to have data and you need a computer."*

P7: *"One thing I know [is] if you don't use smartphone or laptop for collaborations classes you will not be able to attend [a] session"*

P5: *"Laptops or smartphones [are required for remote learning]."*

P9: *"Your cell phone is not a computer and you can't do everything from it."*

The expectation is that students should be equipped with the necessary ICTs to successfully engage with remote-learning platforms (cf. 2.3.2.2). It can be assumed that a lack of ICTs may have caused frustration or anxiety, which can be associated with the

socio-emotional deterioration phase of the resilience theory. This assumption is supported by the work of Hasan and Bao (2020), who claim that a lack of access to laptops or computers may hamper students' engagement with remote learning. A closer look at the participants' responses also confirms the need for access to laptops or computers during remote learning. This claim is confirmed with verbatim phrases such as *"I experienced that you always had to have data and you need a computer"*; *".... I know if you don't use smartphone or laptop for collaborations classes you will not be able to attend session"*; *"Laptops or smartphones"*; and *"Your [cellphone] is not a computer and you can't do everything from it"*.

Figure 5.9 below depicts the photographic evidence of a reflective drawing completed by Participant 4. This reflective drawing further supports the need for ICTs or, specifically, laptops for remote learning.

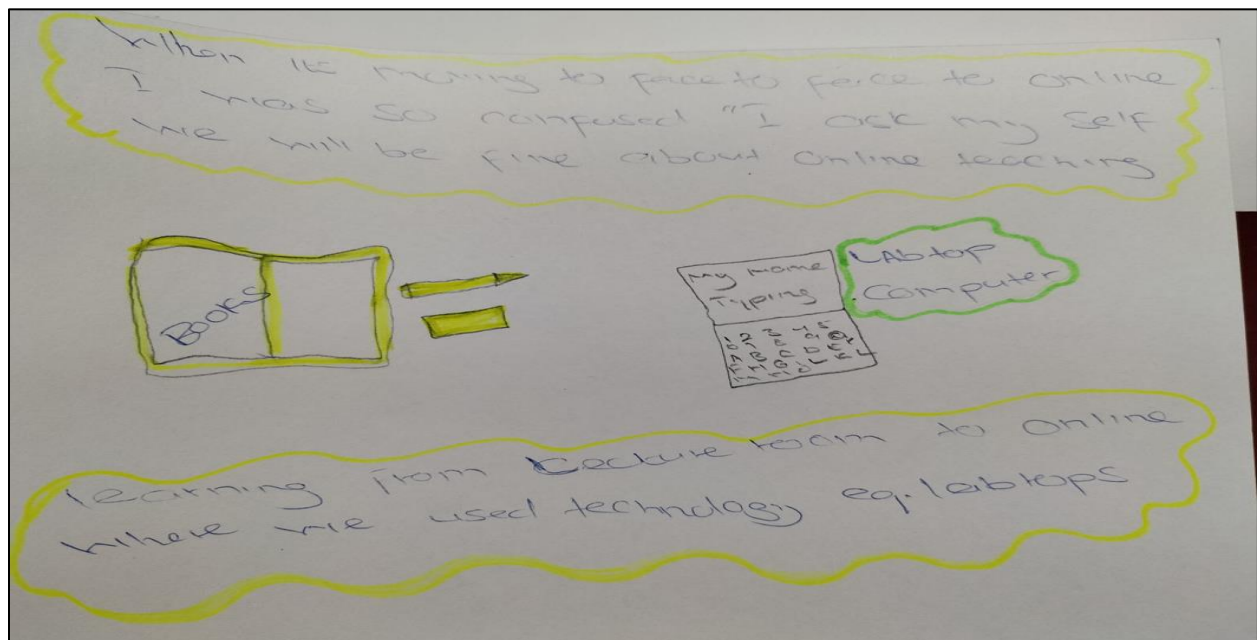


Figure 5.9: Photographic evidence of a reflective drawing completed by Participant 4

5.4.2 Theme 2: The use of personalised coping mechanisms during remote learning

A second theme established for research objective three deals with *personalised coping mechanisms during remote learning*. Literature suggests that remote learning requires of

students to be organised when dealing with remote learning (cf. 2.3.1.4). Students provided the following verbatim phrases during the semi-structured qualitative questionnaire survey entries:

P4: *“I organized my daily activities so that my time with my children and my studies does not clash.”*

P5: *“I prioritized, I drew up schedules and to do lists, and I made us[e] of timetables.”*

P6: *“I tell myself that this is how we are going to live so I need to put myself together and make sure that thing needs to happen, because at the end of the day this is my life and my future.”*

P8: *“Planning, planning and planning [is necessary to cope with remote learning].”*

These responses indicate that planning, drawing up schedules, and time management were vital in managing the demands of remote learning (cf. 2.3). In addition, students were organised, enabling them to cope with the demands of remote learning. This claim can be supported by phrases like, *“I prioritized, I drew up schedules and to-do lists, and I made us of timetables”*; *“I tell myself that this is how we are going to live, so I need to put myself together and make sure that thing needs to happen, because at the end of the day this is my life and my future”*; and *“[p]lanning, planning and planning [is necessary to cope with remote learning]”*.

The personalised coping mechanisms (e.g. being self-disciplined applied by students) are associated with various efforts to regain system functioning as quickly as possible. This coping self-discipline mechanism is linked to the socio-emotional recovery phase (cf. 3.4.4). This claim is in line with work done by Broadbent (2017), who suggests that being self-disciplined is a coping mechanism enabling students to overcome adversity.

5.4.3 Theme 3: The reliance on parental support structures during remote learning

The third theme established under research objective 3 from the students' experiences with remote learning was *the reliance on parental support structures during remote learning*. Lara and Saracostti (2019) view parental support as the involvement of parents in students' academic activity. With this understanding of parental support in mind, some participants had the following to say in line with the semi-structured qualitative questionnaire survey entries:

P4: *"My family was my biggest support system and still is."*

P7: *"Parents"*

P8: *"My guardian at home understood the workload I was dealing with, so she was there for me and my sister. She made sure that our chores are minimized so we can spend time on our books."*

P11: ... *"my mother was always motivating me when it was [a] hard time for me."*

These entries made by the participants suggest that reliance on parental support structures played a pivotal role during remote learning. This claim is confirmed with verbatim phrases such as, *"My family was my biggest support system and still is"; "Parents"; "My guardian at home understood the workload I was dealing with, so she was there for me and my sister. She made sure that our chores are minimized so we can spend time on our books"* and *"my mother was always motivating me when it was [a] hard time for me"*.

These statements align well with the work of Raffaelli (2013), who claims that family or parental support structures play a unique role during remote learning. Parental support motivates students to adapt to the demands of a remote-learning experience (Luo et al., 2013). This claim can be linked to the socio-emotional adapting phase of the resilience theory (cf. 3.4.3) when dealing with adversity. Parental support, therefore, formed an essential buffer to the adverse effects caused by the remote-learning experience (cf. 2.6.3.3).

5.4.4 Theme 4: The availability of peer support structures during remote learning

The fourth theme for research objective 3, derived from the data provided by students derived from students, is *the availability of peer support structures during remote learning*. The availability of peer support is regarded as people with the same interest or challenges coming together to support one another and working towards the same goal (Repper & Carter, 2011). Given this understanding of peer support, some participants indicated the following:

P2: “... support of fellow student [was important to cope with remote learning] ...”

P3: “Friends, we stood together and helped each other w[h]ere we could.”

P10: “Working in groups helps. [asking] members if you cannot understand certain aspects of [the] work.”

A closer look at these verbatim phrases from the semi-structured qualitative questionnaire survey highlights the importance of the availability of peer support structures during remote learning. These peer support structures include friends and fellow students (cf. 3.4.3.1). This claim is supported by the following verbatim phrases from the semi-structured qualitative questionnaire survey entries, “... support of fellow student”; “Friends, we stood together and helped each other w[h]ere we could;”, and “Working in groups helps. [Asking] members if you cannot understand certain aspects of work”.

These phrases align well with work done by McConnell et al. (2015), who suggest that a lack of peer support may cause feelings of hopelessness (cf. 3.4.2.1) and anxiety (cf. 2.3). However, according to the availability of peer support structures, the participants were able to adapt to the challenges caused by the remote-learning experience (cf. 3.4.3.4), which is linked to the socio-emotional adapting phase of the resilience theory (cf. 3.4.3).

5.4.5 Theme 5: Access to relevant institutional support structures offered by the UFS during remote learning

The fifth and final theme for research objective 3 deals with *access to relevant institutional support structures offered by the UFS during remote learning*. According to work done by Carillo and Flores (2020), access to relevant institutional support structures may nurture students' resilience. These structures may, for example, support students in executing remote-learning tasks (cf. 2.3.1.3). Students had the following opinions about access to support structures offered by the UFS during remote learning.

P1: *"Gadgets [like laptops and electronic devices]."*

P2: *"Global protect, online study guides [etc. were offered]."*

P7: *"University of the [free state] institutional support strategies available for [a] student is global protect to use whe[n] w[e']re attend[ing] classes."*

P8: *"Slides were provided so we can study. Global protect app was activated."*

These quotes provided by the participants suggest that the UFS provided support structures to students during remote learning, for example, devices, which may refer to laptops or electronic devices. The university also offered data or internet connectivity and slides to students during remote learning. This offering of data or internet connectivity by the university is confirmed with verbatim phrases such as, *"Global protect, online study guides [ect]."*; *"University of the free state institutional support strategies available for [a] student is global protect to use whe[n] w[e're]attend[ing] classes"*; and *"Slides were provided so we can study, Global protect app was activated"*.

Furthermore, the support mechanisms offered by the UFS allowed students to continue their education during remote learning. The following supports this claim:

P11: *"University support[ed] ... us with global [protect] to continue [with] our study."*

P2: *"It is helpful because even [if] you don't have ... data with the global [protect], you can do remote learning."*

P9: *“... very helpful because with global protect. We will be able to attend Collaboration classes with[out] buying any data.”*

These support structures may have resulted in students recovering from the adversity caused by the remote-learning experience. This recovery is linked to the socio-emotional recovery phase of the resilience theory. With this in mind, Pretorius (2021), in his study, highlights the importance for higher education institutions to initiate support mechanisms to boost the development of resilience during remote learning. Work done by Taylor et al. (2020) suggests that an effective institutional support mechanism will foster students' success.

5.4.6 Summative perspectives regarding objective 3

The focus of research objective 3 was to explore the institutional support strategies that the first-year students applied when confronted with the demands of remote learning. The various responses of participants to this objective highlighted the level of socio-emotional deterioration, adaption, and recovery encountered in their journey toward developing resilience for a remote-learning approach.

Given the responses of research participants from the semi-structured qualitative questionnaire survey, a focus group discussion accompanied by a reflective drawing exercise, it seemed as if their experiences revolved around the following themes, namely:

- i) the provision of ICTs for a remote-learning experience;*
- ii) the use of personalised coping mechanisms during remote learning;*
- iii) the reliance on parental support structures during remote learning;*
- iv) the availability of peer support structures during remote learning ;and*
- v) access to relevant institutional support structures offered by the UFS during remote learning.*

The following section provides a summary of the chapter.

5.5 SUMMARY OF THE CHAPTER

This chapter captured the presentation, analysis, interpretation, and discussion of the empirical data gathered from research participants. It started with a summary on how research objective 1 was realised (cf. 5.2). An account of the data presentation follows the summary, analysis and interpretation with regard to objectives 2 and 3 were given (cf. 5.3 and 5.4).

This account of the data presentation analysis and interpretation is presented as follows:

1. Themes were formulated from the empirical data collected through a qualitative questionnaire survey, focus-group discussion, and reflection drawing exercises.
2. An opening discussion was provided, focusing on presenting relevant literature perspectives related to research objective 1, which was to determine how resilience is conceptualised within the context of higher education formulated themes.
3. After that, the researcher explored research objectives 2 and 3 through the presentation of empirical evidence in the form of verbatim transcripts, verbal responses from the focus-group discussion, and interpretations of participants' reflective drawings, including written words, phrases, and drawings that correlate with the relevant literature perspectives.
4. Finally, an in-depth analysis of the data was provided in writing against the backdrop of the aim of the study. Ultimately, a summary of the main findings for each of the objectives was provided. The final chapter of the study will focus on how students developed resilience in adapting to a remote-learning environment in a first-year module, responding to the study's aim.

CHAPTER 6:

STUDENTS' DEVELOPMENT OF RESILIENCE IN ADAPTING TO A REMOTE-LEARNING ENVIRONMENT IN A FIRST-YEAR MODULE

6.1 INTRODUCTION

The previous chapter described the presentation, analysis, and interpretation of the empirical data related to the study's three research objectives. Responding to these research objectives was essential to realise the aim of the study. The study aimed to investigate students' experiences in the development of resilience in a first-year module in adapting to a remote-learning approach in the FoE at the UFS. As a build-up to realising this aim, the chapter revisits the problem statement, thus clarifying the purpose of the study. After that, the focus shifts towards providing a summative account of the three secondary research questions considered in the study. These questions were:

- How is resilience conceptualised within a remote-learning higher education context? (cf. chapter 3)
- How do the students experience remote learning within the first-year module? (cf. chapter 5)
- Which strategies can the FoE incorporate to assist students with remote learning? (cf. chapter 5).

Given this summative account, the chapter responds to the primary research question: "How did students develop resilience in adapting to a remote-learning environment in a first-year module?" In response to this primary research question, detailed descriptions are provided on:

- i) The level of adversity encountered by students;
- ii) The level of socio-emotional deterioration endured by students;
- iii) The level of socio-emotional adaption endured by students; and
- iv) The level of socio-emotional recovery endured by students.

These descriptions will substantiate how the students' developed resilience while adapting to a remote-learning environment in a first-year module, thus responding to the aim of the study (cf. 6.5). Finally, recommendations for future research are also considered (cf. 6.6).

6.2 REVISITING THE PROBLEM STATEMENT OF THE STUDY

The Covid-19 pandemic necessitated higher education institutions, amongst others, the UFS, to transition their academic activities to a remote-learning platform within a short period. Given this rapid transition to an online, remote-learning approach, the expectation was that higher education institutions would initiate academic support mechanisms to foster students' developmental resilience during a remote-learning experience (Aristovnik et al., 2020; Carrillo & Flores, 2020). However, given this expectation, little is known about how students experienced the shift to remote learning, specifically within the context of the FoE at the UFS during the pandemic.

The lack of information on how students experienced remote learning at the UFS during the pandemic was an issue, since these experiences would justify the effectiveness of current institutional support interventions offered by the UFS. The students' experiences of remote learning would also clarify whether the support interventions offered assisted students in developing resilience for a remote-learning experience. McIntosh and Shaw (2017) add that the developmental resilience of students is vital, since a strong correlation exists between student resilience and the academic success of students. With this argument in mind, I was interested in investigating how students developed resilience in adapting to a remote-learning environment in a first-year module in the FoE at the UFS (cf. 1.2).

6.3 CLARIFYING THE AIM OF THE STUDY

The study aimed to investigate students' development of resilience in a first-year module in adapting to remote learning. To respond to the primary research question of the study, the following secondary research questions were identified:

- i) how is resilience conceptualised within a remote-learning, higher education context?
- ii) how did the students experience remote learning within the first-year module? and
- iii) which strategies can the FoE incorporate to assist students with remote learning?

A summary of the findings of each secondary research question is provided next.

6.4 RESPONDING TO THE SECONDARY RESEARCH QUESTIONS OF THE STUDY

Figure 6.1 provides an overview of the primary research question (PRQ) and the secondary research questions (SRQs) in line with the formulated themes of the study.

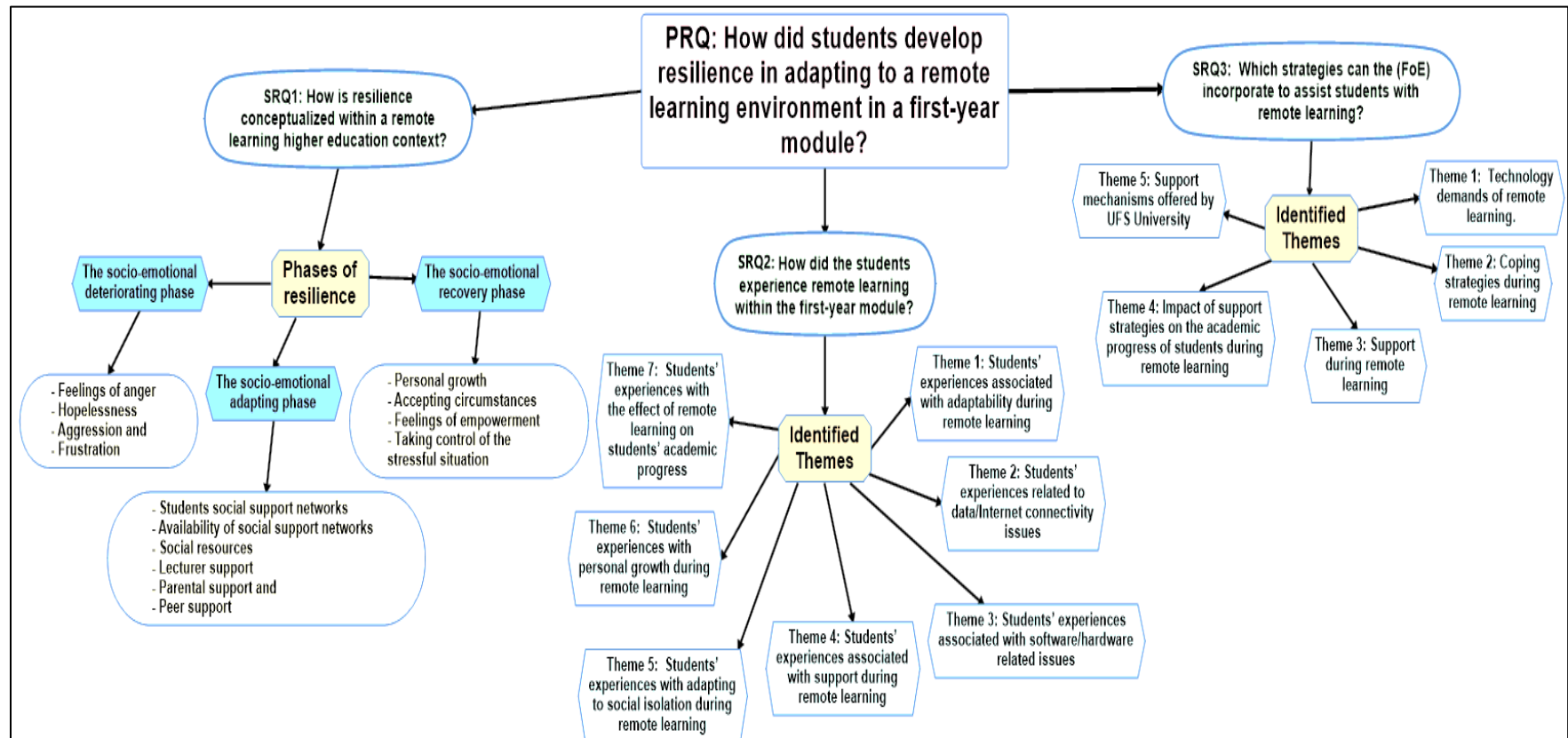


Figure 6.1: Outline of the primary research question, secondary research questions and formulated themes

The coming section will provide an overview of the findings of each of the secondary research questions of the study.

6.41 Revisiting secondary research question 1

Secondary research question 1 focused on clarifying *how resilience is conceptualised within a remote-learning, higher education context*. The researcher conducted an in-depth literature review to respond to research question 1. Three phases of resilience underpinned this literature review, namely i) *the socio-emotional deteriorating phase*; ii) *the socio-emotional adapting phase*; and iii) *the socio-emotional recovery phase*.

Firstly, critical elements identified for the *socio-emotional deteriorating phase* are *anger, hopelessness, aggression* and *frustration*. These elements were discussed in detail in chapter 3 (cf. 3.4.1)

Secondly, identified elements of the *socio-emotional adapting phase* include students' *social support networks, availability of social support networks, social resources, lecturer support, parental support, and peer support* (cf. 3.4.2).

Lastly, critical elements linked to the *socio-emotional recovery phase* include *personal growth, accepting circumstances, empowerment, and taking control of the stressful situation* (cf. 3.4.3).

6.4.2 Revisiting secondary research question 2

Secondary research question 2 clarified *how students experienced remote learning within the first-year module*. To respond to research question 2, the researcher used a semi-structured qualitative questionnaire survey, a focus-group discussion, and a reflective drawing exercise. From the data collected through the semi-structured qualitative questionnaire survey, seven themes were established, namely:

- i) *Students' experiences associated with adaptability during remote learning;*
- ii) *Student's experiences related to data/internet connectivity;*
- iii) *Students' experiences related to access to computers during remote learning;*

- iv) *Students' experiences associated with lecturer support during remote learning;*
- v) *Students' experiences with student social isolation during remote learning;*
- vi) *Students encountering personal growth due to remote learning; and*
- vii) *Influence of remote learning on students' academic progress.*

The data were analysed against the level of adversity experienced by the participants. These responses, categorised into themes, were linked to the 3 phases of the resilience theory: i) the socio-emotional deteriorating phase; ii) the socio-emotional adapting phase; and iii) the socio-emotional recovery phase. The data were further supported by findings from the focus-group discussion and reflective drawing exercises (cf. 5.3 and 5.4).

6.4.3 Revisiting secondary research question 3

Secondary research question number 3 focused on clarifying *which strategies the FoE can incorporate to assist students with remote learning*. The researcher used a semi-structured qualitative questionnaire survey, a focus-group discussion, and a reflective drawing exercise to answer research question 3. The following themes were identified from the data collected through the semi-structured qualitative questionnaire survey, namely:

- i) *technological demands of remote learning;*
- ii) *coping strategies during remote learning;*
- iii) *support during remote learning;*
- iv) *the impact of support strategies on the academic progress of students during remote learning; and*
- v) *support mechanisms offered by UFS University.*

The data collected were analysed against the adversity the participants experienced. These themes were linked to the 3 phases of the resilience theory: i) the socio-emotional deteriorating phase; ii) the socio-emotional adapting phase; and iii) the socio-emotional recovery phase. The findings from the semi-structured qualitative questionnaire survey were further supported by participants' focus-group discussion and reflective drawing exercises (cf. 5.3 and 5.4).

6.5 MAKING THE KNOWLEDGE CONTRIBUTION BY RESPONDING TO THE PRIMARY RESEARCH QUESTION OF THE STUDY

Resilience is an outcome of the students' ability to recover from adversity (Majiba & Majiba, 2020). The level of adversity that the individual experiences influences the individual's resilience negatively. All three of these phases are interdependent and should co-exist for resilience to suffice (Patterson & Kelleher, 2005). The greater the level of adversity, the greater the level of socio-emotional deterioration (Linnavalli & Kalland, 2021). For example, the adversity caused by the remote-learning experience may have caused students to experience feelings of hopelessness, anger, aggression, and frustration. The greater the level of socio-emotional deterioration, the longer it will take for an individual to adapt and recover from adversity (Berger et al., 2018).

For example, students need to adapt to the remote-learning approach to move into the recovery phase. This adapting to the remote-learning approach would require substantial reliance on social support networks, social resources, lecturer support, parental support, and peer support. It is also suggested that the level of socio-emotional adaption and recovery influences resilience (Guil et al., 2020). In other words, if an individual encounters a substantial level of socio-emotional deterioration in a specific event, then a corresponding amount of socio-emotional adaption is required to put the individual on the path to recovery. **This understanding of resilience can be applied to respond to the study's primary research question.**

The students' exposure to the remote-learning experience enabled them to demonstrate developmental resilience. Using a qualitative questionnaire survey (cf. Appendix A), the focus-group discussion (cf. chapter 5), and the reflective drawing exercise (cf. chapter 5) were vital in amplifying the developmental resilience that the pre-service teachers experienced. A closer look at the participants' verbal and non-verbal responses suggests that the participants encountered a level of developmental resilience to the **adversity** caused by the shift to remote learning. In this study, the students' developmental resilience depends on their ability to recover from the adversity that stems from the transition from traditional on-campus teaching to remote learning. Next is a description of

how the participants developed resilience by navigating themselves through periods of **socio-emotional deterioration**, **socio-emotional adaption**, and **socio-emotional recovery**.

6.5.1 Level of adversity encountered

Adversity is exposure to adverse environments or circumstances (Boyce et al., 2021). Given this understanding of adversity, multiple responses from the participants suggest that the shift from traditional on-campus teaching and learning activities to remote learning was considered adverse. Experiences associated with adversity included “*struggling to adapt to the remote-learning experience*” (cf. 5.3.1); “*lack of data to access online material*” (cf. 5.3.2); “*lack of access to computers*” (cf. 5.3.3); “*student social isolation*” (cf. 5.3.5); and “*lack of ICT equipment to access lecturers*” (cf. 5.5.1). Consequently, this level of adversity encountered by the students had a knock-on effect on the socio-emotional deterioration experienced.

6.5.2 Level of socio-emotional deterioration endured

The greater the level of socio-emotional deterioration, the longer it will take for an individual to adapt and recover from adversity (Berger et al., 2018). Student experiences associated with socio-emotional deterioration include “*student confusion and frustration*” (theme 1 of objective 2); “*lack of data/internet connectivity*” (theme 2 of objective 2); “*lack of access to computers*” (theme 3 of objective 2); and “*student social isolation*” (theme 5 of objective 2).

Given these events tied to socio-emotional deterioration, the students had to demonstrate a level of socio-emotional adaption that would put them on a path to recovery from adversity. The level of socio-emotional adaptation is described next.

6.5.3 Level of socio-emotional adaption endured

Socio-emotional adaption is the ability of individuals to “bounce back” to overcome adversity (Patterson & Kelleher, 2005). Socio-emotional adaption is an outcome of the

level of socio-emotional deterioration that an individual encounters (Neenan, 2017). It is important here that a level of socio-emotional adaption is required for the individual to encounter a level of socio-emotional recovery.

Student experiences associated with socio-emotional adaption include “*students’ adaptability to remote learning*” (theme 1 of objective 2); “*lecturer support during remote learning*” (theme 4 of objective 2); “*reliance on parental support structures*” (theme 3 of objective 2); and “*availability of peer support structures*” (theme 4 of objective 3).

Accordingly, the level of socio-emotional adaption encountered by the students influenced their socio-emotional recovery, which is regarded as the final phase of resilience development. The greater the level of socio-emotional recovery, the greater the resilience the student demonstrated.

6.5.4 Level of socio-emotional recovery endured

Socio-emotional recovery refers to how an individual experiences a level of personal growth due to adversity (Patterson & Kelleher, 2005). Socio-emotional recovery is an outcome of an individual's level of socio-emotional adaptation (Simon et al., 2022).

Student experiences associated with socio-emotional recovery include “*students encountering personal growth*” (theme 6 of research objective 2); “*the use of personalised coping mechanisms*” (theme 2 of research objective 3); and “*access to relevant institutional support structures*” (theme 5 of research objective 3).

With the levels of adversity, socio-emotional deterioration, socio-emotional adaption, and socio-emotional recovery uncovered, the rich student experiences associated with their development of resilience during the time of the pandemic can diagrammatically be presented in a reworked and adjusted illustration of Patterson and Kelleher’s (2005) original depiction of Resilience Theory in Figure 6.2 below.

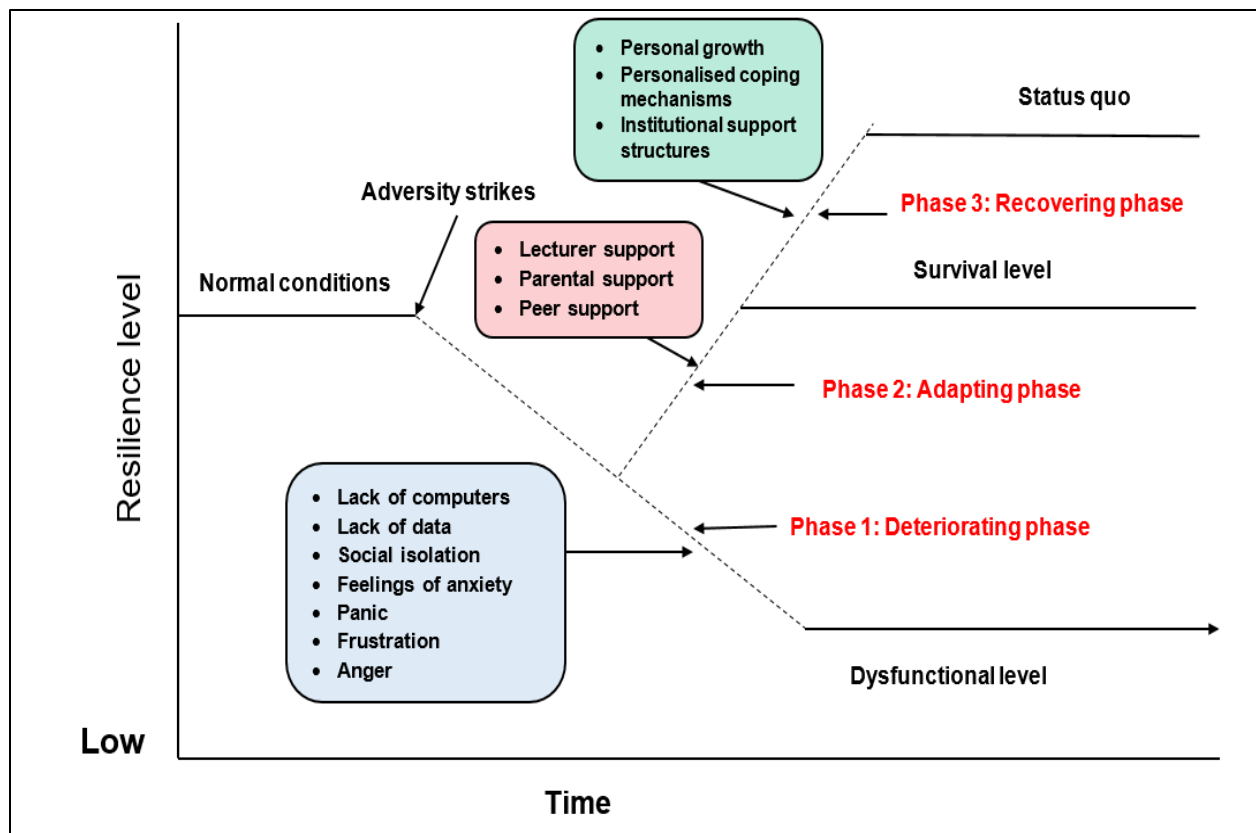


Figure 6.2: Diagrammatic demonstration of resilience theory in the context of remote learning

The diagram presents the original illustration of the Resilience Theory developed by Patterson and Kelleher almost two decades ago. Given this traditional depiction of Resilience Theory, this study contributes knowledge by adding relevant student experiences as themes aligned with the three typical phases of Resilience Theory. For example, themes associated with the **socio-emotional deteriorating phase** of the students included: i) *lack of computers*, ii) *lack of data/bandwidth*, iii) *student social isolation*, and iv) *feelings of anxiety, panic, frustration and anger*. In addition, themes associated with the **socio-emotional adapting phase** of students included i) *lecturer support*, ii) *parental support*, and iii) *peer support*. Finally, themes associated with the **socio-emotional recovery phase** of students included i) *personal growth*, ii) *personalised coping mechanisms*, and iii) *institutional support structures*. These presentations can be witnessed in Figure 6.2.

6.6 RECOMMENDATIONS FOR FUTURE RESEARCH

This study focused on the students' experience of developing resilience while adapting to a remote-learning environment. Although students had to adapt to a remote-learning environment, lecturers also had to adapt to a remote teaching and learning approach. Therefore, the researcher recommends that future scholars investigate how lecturers experience the development of resilience while adapting to a remote teaching and learning environment. This research might render interesting findings and comparisons between how students and lecturers developed resilience while adapting to a remote teaching and learning environment.

6.7 CONCLUDING THOUGHTS

A proverb by Dieter F. Uchtdorf "It's your reaction to adversity, not adversity itself, that determines how your life's story will develop." Students' reaction to adversity caused by the shift from face-to-face to remote teaching and learning during the Covid-19 pandemic resulted in the development of resilience. This journey of developing resilience was characterised by various personal efforts and mechanisms applied by students. Furthermore, students' resilience leads to personal growth through a willingness to succeed. Therefore, adapting to new realities caused by life's adversities can yield positive results if one perseveres.

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ANNEXURE A: QUALITATIVE QUESTIONNAIRE SURVEY

evasys	Students' development of resilience in adapting to remote learning	
[Enna Moroeroe]		
[Masters study]		

Mark as shown: ☐ ☒ ☐ ☐ ☐ Please use a ball-point pen or a thin felt tip. This form will be processed automatically.

Correction: ☐ ☒ ☐ ☒ ☐ Please follow the examples shown on the left hand side to help optimize the reading results.

1. Qualitative study: Questions

Dear student,

Thank you for participating in the study. The survey will take you **approximately** 20 minutes to complete. Please complete the questions as honest as possible. There are no right or wrong answers.

1.1 How did you **experience the shift** from face-to-face learning to remote learning?

1.2 Which aspects of the shift to remote learning did you find **challenging**, and **why would you say so**?

1.3 How did you **cope with the challenges** experienced with the demands of remote learning?

1.4 What are some of the **positive experiences** encountered during remote learning?

1.5 Which support mechanisms were **offered** by the University that assisted you with the remote learning experience?

1.6 Would you say that these mechanisms were **helpful or not**? Please **elaborate**.

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1. Qualitative study: Questions [Continue]

1.7 How did the remote learning experience affect your **personal growth** as a student?

1.8 How did the remote learning experience affect your **academic progression** as a student?

1.9 In your own opinion, what were some of the **demands** of remote learning that you were exposed to?

1.10 What was your **experience** with the demands of remote learning?

1.11 What **strategies** did you make use of to **cope** during remote learning?

1.12 How did you stay **motivated** during the shift towards remote learning?

1.13 What **support** systems did you make use of other than what the faculty/university offered during the remote learning period?

1.14 Which institutional support strategies were made available to you to **support** your academic experience during remote learning?



1. Qualitative study: Questions [Continue]

1.15 How did you **experience** the institutional support strategies offered by the UFS?

1.16 In your own opinion, in which way did the institutional support strategies offered by the UFS affect your **academic progress** during remote learning?

1.17 How did the institutional support strategies affect your **personal growth** and **development** as a student?

1.18 Which other personal experiences are **you willing to share** regarding how you developed as a student during the **remote learning experience**?

1.19 Do you have any **suggestions** on how the institution can better support students during the remote learning experience?

1.20 Please leave your email address if you are interested in a follow-up study.

THANK YOU



ANNEXURE B: RAW DATA FROM QUALITATIVE QUESTIONNAIRE SURVEY

Comments Report

1. Qualitative study: Questions

1.1) How did you experience the shift from face-to-face learning to remote learning?

- At 1st it was very difficult to adapt. But when time went by everything just fell in place.
- At beginning we struggle a lot to attend class such issues like data, nertwork and etc
- At first it was confusing and I was panicking, but as time went by it became better.
- Challenging
- For the first time it was so difficult and frustrating because we were struggling to login because of data as well as Smartphones.
- Hard
- I experience problems and wanting to give up.
- I experienced it quite well. It was so much cheaper to study from home - the lectures adapted quickly. It was easier for me to do study online.
- It was difficult. I struggled with motivation and discipline. But once I got into it it was fine
- Very difficult
- Well except for the data, and connectivity issues. It was easy to adapt to the situation

1.2) Which aspects of the shift to remote learning did you find challenging, and why would you say so?

- Attending classes and writing tests, because Global Protect couldn't hold connection for long.
- Buying data. Attending afternoon classes
Since we didn't get data from the school some of us our parents were struggling so if you bought data once a month that was it. Afternoon classes were difficult because now everyone is back from work and school lots of disturbance.
- Collaboration to class, because if today you are lucky and you are able to login to class tomorrow you might not.
- Data :some of us don't have money to buy data to attend class. Network: some of us struggle with nertwork were we live
- In the beginning I stressed a bit about assessments, but the lecturers made sure we were fine.
- Just staying motivated and managing time correctly
- Not being used to online learning. I didn't know much about it.
- Online because ur lectures take time to answer our emails
- Online. Network problem
- Space and data, global app did not always work and at home its very crowded. And we don't have a big space
- laptop- I was not having a laptop and I could not afford to buy it.
data - not having enough data I had to go and write test a internet cafe .

1.3) How did you cope with the challenges experienced with the demands of remote learning?

- I adapted, and volunteered at the primary school nearby and in return I could use their space to study and wifi
- I cope with the support of fellow student and Letures
- I did not experience any challenges in remote learning.
- I got help from my neighbor to borrow her laptop and got a data from varsity.
- I used my own data to attend classes and write tests sometimes, and I couldn't attend classes sometimes so I wasn't coping well.
- If you want great marks you will however be willing. So there's nothing of you to do, you just need to push your work and attend
- Like I said before it was tough but I see myself becoming better and better some other days, because i used to login an hour before the session starts.

- Submitting my work in the morning
- Through blackboard
- Very stressful
- Well I had to suck it up because I had to pass my modules. I just tried hard to adapt & do my best

¹⁴⁾ What are some of the positive experiences encountered during remote learning?

- At home you have time to go through module guides and textbooks before class begins.
- I got to attend classes without worrying about being Covid-19 infected.
- It was cheaper for me to study from home, as I said. It enabled me to have a part time job, gaining experience and study at the same time. It was also nice for me to see how I grown as a person to take responsibility
- Learn to do my work alone
- Learning to work alone
- Not having to go anywhere to attend class I just have to sit at my desk at home
- Nothing was rushed, and you actually got enough time to do everything and prepare
- Positive experience on my side is on the remote learning you can attend class while you are at home because of the advance of technology.
- We are known more familiar with remote learning and we are know enjoying it.
- You attend a lot even morning classes because you are up already so nothing is tragic you.
- positive experience I got enough support from my mother telling me not to give up.

¹⁵⁾ Which support mechanisms were offered by the University that assisted you with the remote learning experience?

- Data, and chances to write testn
- I can't say because I did not use any support mechanismsm
- I didn't use any
- Laptops and remote learning training
- Many chances of submitting if I encountered problem of network.
- Online recorded classes and global protect
- Slides only
- Slides were provided so we can study. Global protect app was activated and mental health support was also provided.
- They give us a data for almost 3months after that 3 months they give us accessibility on remote even if we don't have a data which is global protector
- University support of us with global to continue our study easy
- data

¹⁶⁾ Would you say that these mechanisms were helpful or not? Please elaborate.

- Helpful
- It is helpful because even you don't have a data with the global you can do remote learning is too helpful on the student live
- My laptop had problems but I received a new and I got to learning how remote learning will go about.
- N/A (2 Counts)
- No. because we experience lot of problem when when we submit or have online classes because of network.
- They were helpful but sometimes problematic
- We're very helpful because with global protector we will be able to attend Collaboration classes with buying any data.

- Yes they were very helpful.
Because you can go back to it at any given time if you cannot understand something.
 - Yes, I was able to study with slides given and some students got help when they needed one from the mental health support.
No, Global protect app wasn't helpful most of the time.
 - yes it was enough data but i could not apply for laptop I had to use my phone.
- ^{1.7)} How did the remote learning experience affect your personal growth as a student?
- I didn't learn much.
 - I missed student life, being on campus, being independent away from home and making new friends.
 - I struggled with motivation & procrastinated a lot unfortunately.
 - I think I developed a lot
Also it was very costly to us because we had to buy laptops and also smartphones
We used to use computer labs
 - It affected me in a good way. It learned me to do many things at the same time, manage a part time job and to do my studies. It also taught me self discipline, because you are on your own - you have to sit down and do the work.
 - It has an impact in my life because today if you talk of any kind of remote learning i don't panic I know how handle the situation.
 - It helped a lot and boosted my self confidence
 - Sometimes remote learning is too stressful for the student especially when you have connective issues
 - When I'm at the campus I don't procrastinate.
 - very badly, especially when it comes to test the network will be offline then i would have stress and contact the blackboard people.
- ^{1.8)} How did the remote learning experience affect your academic progression as a student?
- Both positive and negative, negative in a sense that everything happened fast but positive because I learned to adapt nd compromise
 - Delay of the marks or incomplete
 - First time i was struggle even with to submit my assignments, I was not sure if i will survive.
 - I didn't learn much
 - I've improved in some modules which really makes me proud of myself and happy.
 - It affect academic progression when you have a test and you struggle due to nertwork issues
 - It affected me positively. I did much better in my studies. I could plan my own schedule and work on my own time through the work.
 - It helped a lot. Also in the grades everything was just great
 - My marks decreased quite drastically. But are now stable again. It was just the initial change
 - my marks was decreasing.
- ^{1.9)} In your own opinion, what were some of the demands of remote learning that you were exposed to?
- Buying data for classes and tests.
 - I can't really answer this question - N/A
 - It's important to have good wifi/internet & you relied a lot on lecturers
 - Laptops or smartphones.
 - Online tests and exam
 - Stating focused and actually studying, using time wisely ect
 - Timing of test
 - We have a workload during remote learning

^{1.10} What was your experience with the demands of remote learning?

- Data and workload
- I had to buy data and it wasn't enough. It didn't last a week, I had to go to the library sometimes and it didn't operate everyday so I found it closed sometimes.
- It was positive
- Keeping up to date & making sure I have all my ducks in a row
- Learning on my own
- N/A
- One thing i know if you don't use smartphone or laptop for collaborations classes you will not be able to attend session
- Very hard because we had little time to write

^{1.11} What strategies did you make use of to cope during remote learning?

- Always set an alarm to wake up so that I can attend early morning classes
- I do my own time table to cope with my academic
- I logged in earlier before session started and it worked for me.
- I prioritized, I drew up schedules and to do lists, and I made us of timetables
- I went through slides and class recordings after classes and when I missed classes due to connection. I could self-study and keep up.
- Listen to the recording if I missed the session
- Planning, planning and planning.
- Reaching out to classmates, we're all in it together
- Studying

^{1.12} How did you stay motivated during the shift towards remote learning?

- Answer our email in time
- I did have a part time job, my mind was not always on my studies, if I can state it like that. I also did learn a lot about education while working so I could relate to so much more things we were learning.
- I had to do everything in my power to pass
- I kept on telling myself that I am almost done with my degree, so I have to push
- I stay motivated because with remote learning you can do you academic work any where u are
- I tell myself that this is how we are going to live so I need to put myself together and make sure that thing needs to happen, because at the end of the day this is my life and my future.
- It expensive, my parents pay a fortune, that's what motivates me & my future depends on it of course
- My guardian at home understood the workload I was dealing with, so she was there for me and my sister. She made sure that our chores are minimized so we can spend time on our books.
- Working in groups helps. asking members if you cannot understand certain aspects of work
- my mother was always motivating me when it was hard time for me.

^{1.13} What support systems did you make use of other than what the faculty/university offered during the remote learning period?

- A study space from school
- Always emailed when I didn't understand something
Made
- Friends, we stood together and helped each other were we could. Because that is al we had.
- N/A

■ Nearest internet Cafe was my second option.

■ Parents

■ Social media motivated me a lot during the pandemic to cope because people understood how Covid-19 affected students.

■ Support system I use during remote learning periods is my smartphone and laptop

■ none

^{1.14} Which institutional support strategies were made available to you to support your academic experience during remote learning?

■ Gadgets

■ Global protect, online study guides ect

■ None that I remember

■ Recording of the lesson was the most strategic i think has an impact because if you were struggling to login or to attend class you would have to listens the recording after.

■ The lecturers gave us enough time to do assignments, write tests and sometimes we had another class so that the students could ask questions to the lecturers and that helped a lot of people

■ University of the free state institutional support strategies available for student is global protect to use when we attend classes

■ We were updated early with tests, so I could study for tests days before.

^{1.15} How did you experience the institutional support strategies offered by the UFS?

■ Good.

■ I think it worked well.

■ It was good but could've been better

■ I'm not sure

■ The university of the free state offer good strategies to the student

■ They were helpful

■ When I write my assessment i used to use records and it becomes more easy because i will be able to repeat again and again that recording.

^{1.16} In your own opinion, in which way did the institutional support strategies offered by the UFS affect your academic progress during remote learning?

■ It certainly helped me in my academic progress. If I was unsure about something, the lecturers were always there to help.

■ It didn't affect my academic progress in any way

■ It had a positive impact on my academic progress because we were given time and because I was learning in my comfort zone, I passed well and got more than 1 distinctions which was new to me.

■ None

■ Positive way

■ The time when we are more in one session, most of us we don't stay in that class more than hour before we automatically we were kicked out, if we were more We were kicked out and log in just like that.

■ Ufs give us more support during remote learning periods

^{1.17} How did the institutional support strategies affect your personal growth and development as a student?

■ Am not sure

■ I didn't use any support strategies

■ I see myself becoming a better person because i was brave and alway make a plan when something happened I come up with a plan faster.

■ I was aware that the university had no choice but to keep us safe at home but I missed student life.

- It helped me learn, and grow. I also understood the importance of learning
- It taught me that you as a person should have patience, realize that some students are not so lucky to be where I am with network and a laptop and you should take that into consideration.
- None

^{1.18} Which other personal experiences are you willing to share regarding how you developed as a student during the remote learning experience?

- First time i felt like i need to quit because i was struggle with data but after a while University gives us a data but still my phone were kept on kicking me out when i'm in a class, i bought smartphone and my problems were becomes better and better and i become familiar with remote learning, and i forget that i was frustrated in the beginning.
- I started to have a life in the small town i live. I started to learn so much more about the people in the town and i loved it. I realized that i am a small town girl and that i really love one to one time with people. I learned a lot from the people in my town.
- I've learned that things aren't going to be the same forever, I should be ready for any changes to my academics. It was Covid-19 and it may be something else in future.
- It teaches you a lot about being disciplined & thinking of the bigger picture
- It's not what we were used to but it added to our experience and were could compare expectations
- Learning by my self because sometimes network will be a problem and struggle to access a class
- None
- You have to create you own time for study share knowledge with fellow student

^{1.19} Do you have any suggestions on how the institution can better support students during the remote learning experience?

- Enough data
- Extend time for tests
- I suggest that University need to give students a data again because sometimes when We we more in class or we were more those who connect and using global it keeps on disconnecting know and than so data its were it will help.
- I think the institution helped where they could, the lecturers was so nice about cut off dates and I think it was done 100%
- Instructions can support students with more data to complete academic work
- Lecturers have to stay on top of things, like, upload slides when they're meant to, give us our assignment schedules so we can be prepared & don't leave things last minute
- Yes, I would like the university to provide data to students so that difficulties in attending classes and writing tests may be addressed.
- Yes, data and study space. Effective communication

ANNEXURE C: EXAMPLE OF CONSENT FORM

Consent form

By completing this survey, I confirm that:

1. I have read and understood the information provided to me.
2. I understand that my participation is voluntary.
3. I understand that the confidentiality of my responses will be protected and my responses will not be linked to me as an individual.
4. I am aware that the findings of this survey will be part of a Masters dissertation.
5. I agree that my responses may be utilised for scholarly publication.
6. I have been provided with the contact details of the researcher who is managing the survey.
7. I agree that I am 18 years and older.

Signature

ANNEXURE D: ETHICS STATEMENT



GENERAL/HUMAN RESEARCH ETHICS COMMITTEE (GHREC)

08-Dec-2021

Dear Mrs Enna Moroeroe

Application Approved

Research Project Title:

Students' development of resilience in adapting to remote learning: The case of a first-year module

Ethical Clearance number:

UFS-HSD2021/1452/21

We are pleased to inform you that your application for ethical clearance has been approved. Your ethical clearance is valid for twelve (12) months from the date of issue. We request that any changes that may take place during the course of your study/research project be submitted to the ethics office to ensure ethical transparency. Furthermore, you are requested to submit the final report of your study/research project to the ethics office. Should you require more time to complete this research, please apply for an extension. Thank you for submitting your proposal for ethical clearance; we wish you the best of luck and success with your research.

Yours sincerely

Dr Adri Du Plessis

Chairperson: General/Human Research Ethics Committee

Dr Adri
du
Plessis

Digitally signed
by Dr Adri du
Plessis
Date: 2021.12.09
08:49:25 +02'00'

205 Nelson Mandela
Drive
Park West
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South Africa

P.O. Box 339
Bloemfontein 9300
Tel: +27 (0)51 401
9337
aduplessisA@ufs.ac.za
www.ufs.ac.za



ANNEXURE E: LANGUAGE EDITING

CORNELIA GELDENHUYS

083 2877088
corrieg@mweb.co.za

20 October 2022

TO WHOM IT MAY CONCERN

Herewith I, Cornelia Geldenhuys (ID 521114 0083 088) declare that I am a qualified, accredited language practitioner and that I have edited the following master's dissertation:

STUDENTS' DEVELOPMENT OF RESILIENCE IN ADAPTING TO REMOTE LEARNING: THE CASE OF A FIRST-YEAR MODULE

by

ENNA MOROEROE
[Student number: 2004115982]

All changes were indicated by track changes and comments for the author(s) to verify, clarify aspects that are unclear, make the necessary adjustments and finalise. The editor takes no responsibility in the instance of this not being done. The document remains the final responsibility of the author(s).



.....
C GELDENHUYS
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by Enna Moroeroe

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