FOSTERING SELF-DIRECTED LEARNING IN AN OPEN, DISTANCE & E-LEARNING (ODeL) ENVIRONMENT IN SOUTH AFRICA

by

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DECLARATION

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I, MNCEDISI CHRISTIAN MAPHALALA, declare that FOSTERING SELF-DIRECTED LEARNING IN AN OPEN, DISTANCE & E-LEARNING (ODeL) ENVIRONMENT IN SOUTH AFRICA is my original work and has never been submitted to any university. All the sources I have used or quoted have been indicated and acknowledged by means of complete references.

13 January 2026

Signature Date

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This achievement is not mine alone; it is ours. May it serve as a testament to the power of family, love, and faith.

ABSTRACT

Open, Distance and e-Learning (ODeL) has widened access to higher education by enabling flexibility and remote participation in studies. However, self-directed learning (SDL) remains uneven, particularly in contexts marked by digital inequality, platform instability, and large student cohorts. Many students entering ODeL lack the self-regulatory skills, digital literacies, and academic confidence required for autonomous learning, resulting in fragmented engagement and inconsistent academic success. This study examined how a South African ODeL university can cultivate SDL so that autonomy becomes a realistic and equitable learning experience for all students. The study is anchored in Self-Directed Learning Theory (SDLT), which conceptualises SDL as a learnable cycle of planning, enactment, and reflection, and in Transactional Distance Theory (TDT), which explains how structure, dialogue, and autonomy shape the psychological distance students experience. The study explored the practices and institutional mechanisms necessary for fostering successful SDL in ODeL. An interpretivist, qualitative-phenomenological design was adopted, involving 18 participants: a virtual focus group with final-year Bachelor of Education students (n = 8) and semi-structured interviews with academics (n = 8) and instructional designers (n = 2). Data were analysed inductively using Braun and Clarke's (2006) thematic analysis, with trustworthiness strengthened through triangulation, member checking, an audit trail, and reflexive engagement. Findings show that SDL is a co-constructed systemic outcome, dependent on learner dispositions, scaffolded course design, peer learning communities, reliable digital ecosystems, and responsive institutional support. AI tools were found to enhance cognitive and linguistic independence when used ethically. The study makes an original contribution by developing the ALIGN SDL Framework, a holistic, context-responsive model that reframes SDL from an individual learner activity and set of skills to a relational ecosystem shaped by pedagogy, infrastructure, human support, and digital networks. It provides a practical, scalable blueprint for institutions to intentionally design and sustain SDL across the student journey. The study concludes that for SDL to work, it must be scaffolded by a supportive university environment, a suitable pedagogy, an intentional focus on SDL skills, functioning, well-maintained digital tools and networks, and the necessary human support throughout the study period. Key recommendations include implementing credit-bearing SDL and digital literacy inductions for students, embedded mentoring, analytics-supported feedback and a "mobile-first" equity-oriented curriculum design.

Keywords: Self-Directed Learning; ODeL; Autonomy; Transactional Distance; Digital Equity; Peer Support; AI-Literacy

Table of Contents

List of Tables

List of Figures

LIST OF ABBREVIATIONS AND ACRONYMS

SDL:	Self-Directed Learning
ODeL:	Open, Distance and e-Learning
TDT:	Transactional Distance Theory
LMS:	Learning Management System
AI:	Artificial Intelligence
B.Ed:	Bachelor of Education
UNISA:	University of South Africa
ICT:	Information and Communication Technology
CoI:	Community of Inquiry
HEI:	Higher Education Institution

CHAPTER 1: ORIENTATION AND BACKGROUND TO THE STUDY

1.1 INTRODUCTION

This study examines how self-directed learning (SDL) may be fostered in an Open, Distance and e-Learning (ODeL) environment in South Africa. Chapter 1 introduces the study and outlines the key elements that frame the research. It begins by presenting the background and context in which the study is located, followed by the problem statement, research aim and objectives, and research questions. The chapter also provides an overview of the theoretical framework and the significance of the study and concludes with a brief outline of the study's structure.

1.2 BACKGROUND

Higher education has undergone a significant transformation over the past three decades, driven by globalisation, massification, digital innovation, and the rising demand for more flexible modes of study (Altbach et al., 2009; UNESCO, 2021; OECD, 2019). In response to these shifts, traditional campus-based models have progressively evolved into more open, technology-enhanced learning systems that emphasise flexibility, learner autonomy, and broader accessibility to accommodate diverse student needs (Naidu, 2022; Aljawarneh, 2020; Ayoko et al., 2024). Open, Distance and e-Learning (ODeL) has emerged as a central response to this transformation, offering learning pathways that transcend geographic, temporal, financial, and social barriers (Altbach et al., 2009; UNESCO, 2021). Technological innovation, particularly the widespread adoption of digital tools and online platforms, has accelerated the integration of ODeL across higher education systems worldwide, enabling institutions to expand access and provide learning opportunities to diverse populations (Naidu, 2022; Aljawarneh, 2020). The global shift towards digitalised education has thus reshaped pedagogical expectations and repositioned students as active agents of their own learning in online environments.

The COVID-19 pandemic in 2020 intensified this shift, compelling higher education institutions to implement emergency remote teaching as a continuity measure (Dhawan, 2020; Hodges et al., 2020). Although emergency remote teaching is conceptually distinct from well-planned online learning, the pandemic experience accelerated digital adoption. It highlighted the potential of e-learning to sustain academic programmes during disruption. Countries across the world reported similar challenges and adaptations, as institutions reconfigured curricula, assessment, and support services to suit digital platforms (Crawford et al., 2020). Post-pandemic analyses confirm that e-learning will remain a core modality of higher education

delivery, with the expectation that students will navigate digital platforms with greater independence and technological competence (Lederman, 2023). As a result, the demands placed on students in ODeL environments have changed, necessitating higher levels of self-regulation, digital literacy, motivation, and autonomous learning.

Open, Distance and e-Learning is distinct from conventional learning in that it decentralises the teaching–learning process and emphasises student autonomy through flexible, technology-enabled access to education. It allows students to engage with learning materials, lecturers, and peers beyond the constraints of place and time (Ayoko et al., 2024; Huang et al., 2020). ODeL encourages the use of digital technologies, interactive platforms, and online communication tools, which collectively support remote learning and expand opportunities for continuing education, particularly among adults balancing work, family, and study commitments (Haleem et al., 2022; Ofosuhene, 2022). The value of ODeL lies not only in its ability to widen access to education but also in its contribution to human capital development and the attainment of national and global education priorities. These include the development of adaptable, skilled, and digitally capable graduates who can contribute meaningfully to socio-economic development (OECD, 2019; World Bank, 2022). In this context, student success is strongly tied to the ability to self-manage learning in a digital environment, making self-directed learning (SDL) a critical skill for ODeL.

Self-directed learning has gained recognition as a core competency for success in online and distance learning environments. SDL refers to the process by which students assume responsibility for identifying their learning needs, setting goals, selecting strategies, and evaluating their learning outcomes, with or without instructor support (Knowles, 1975). Research consistently links SDL with improved academic performance and persistence in online learning (Garrison, 1997; Khalid et al., 2020). SDL aligns naturally with the pedagogical expectations of ODeL because students must navigate learning autonomously, manage their time effectively, monitor their progress, and regulate their motivation in environments where instructor presence is often limited (Shea & Bidjerano, 2010; Jossberger et al., 2010). Researchers argue that SDL is not merely a beneficial skill but a prerequisite for success in flexible and digitally mediated learning systems such as ODeL (Mahlaba, 2020; Hutasuhut et al., 2023).

The ODeL environment also reshapes power dynamics in the learning process, shifting from lecturer-led instruction to student-driven engagement. This shift aligns with learning theories such as humanistic, constructivist, and connectivist perspectives. These perspectives position student agency, autonomy, and knowledge construction as central to learning, typically

facilitated through interaction with peers, digital networks, and the effective mobilisation of learning resources (Garrison, 1997). Research highlights that online and digital learning environments can enhance learner autonomy and engagement by providing structures that support self-regulated learning and behavioural empowerment (Pan, 2023).

Unlike traditional face-to-face education, where the lecturer plays a central role in structuring and regulating learning, ODeL contexts place the onus on the student to direct their learning journey. For this reason, certain skills and attitudes such as digital literacy, online learning readiness, and learner control are prerequisites for successful SDL in higher education, as evidenced by studies linking preparedness and self-regulation competencies to online learning success (Li & Huang, 2025). The extent to which students possess or can develop SDL competencies influences their engagement and overall success in ODeL.

While the literature affirms the value of SDL in distance education, its development is neither automatic nor guaranteed. Evidence shows that significant variations exist in students' readiness for SDL, particularly among first-generation students, underprepared students, and individuals transitioning from teacher-centred schooling systems to independent learning environments (Song & Hill, 2007; Van Zyl et al., 2013). Many students entering ODeL lack adequate metacognitive, time-management, and self-regulatory skills to succeed in autonomous learning environments. This mismatch between ODeL expectations and students' ability to self-direct contributes to difficulties in adjusting to online learning, low engagement, and an increased risk of academic failure or withdrawal.

Despite the global promise and potential of Open, Distance and e-Learning (ODeL), persistent inequalities in access, participation, and student success continue to characterise its implementation across regions, particularly in the Global South (Tait, 2018; Czerniewicz et al., 2020; Jung & Latchem, 2020). Across the African continent, ODeL is increasingly recognised as a strategic vehicle for widening access to higher education and improving participation and attainment rates among diverse and historically underserved populations (Tait, 2018; Mtebe & Raisamo, 2014; UNESCO, 2021). However, persistent structural challenges, including digital inequalities, limited technological infrastructure, and socio-economic inequalities, continue to influence the extent to which students can benefit from ODeL systems (Tait, 2018; Mtebe & Raisamo, 2014). The rapid digital expansion following the COVID-19 disruption demonstrated both the potential and fragility of online learning in contexts marked by unequal access to data, devices, and stable connectivity (Czerniewicz et al., 2020). As such, the success of ODeL across African systems depends not only on technological provision but also on intentional pedagogical and student support measures that cultivate student autonomy and resilience.

In South Africa, ODeL has become a key modality for expanding access to higher education in line with the national goals of redress and transformation. Since the early 2000s, national policy frameworks have emphasised the need for an equitable and diversified post-school system that enables greater participation among historically excluded groups (DoE, 2001; DHET, 2013). ODeL plays a central role in these efforts by providing flexible, accessible pathways for individuals who may not be able to attend traditional, face-to-face institutions owing to geographic, financial, or personal constraints. The Council on Higher Education (2021) notes that the expansion of distance learning has contributed to growing enrolments and broader access across the higher education landscape. However, this sign of progress has raised new concerns about quality, student support, and overall success rates in ODeL in South Africa. Research highlights that high dropout and low completion rates remain persistent challenges, often linked to limited epistemological access, under-preparedness, and socio-economic barriers that shape students' transitions into autonomous learning (Scott, Yeld, & Hendry, 2007; Subotzky & Prinsloo, 2011).

Digital inequality remains one of the most pressing challenges influencing ODeL success in the South African context. While ODeL removes geographical barriers, many students continue to experience unequal access to essential learning resources, including appropriate devices, affordable connectivity, and sufficient data, which significantly constrains participation and engagement in online learning (Moonasamy, 2022). Socio-economic circumstances further shape students' access, including their capacity for self-regulation in online learning, as evidence shows that students from lower socio-economic backgrounds are less likely to employ effective self-regulated learning strategies and maintain engagement in digital learning environments (Wang, Wang, & Ye, 2023).

Structural socio-economic barriers frequently intersect with pedagogical challenges such as limited lecturer–student interaction, delayed feedback, and feelings of isolation, all of which hinder the development of SDL and contribute to a sense of disconnection from the learning community (Prinsloo, 2020). Transactional Distance Theory suggests that when dialogue, structure, and student autonomy are imbalanced, students experience greater psychological distance, which can impede academic success (Moore & Kearsley, 2012; Gorsky & Caspi, 2005). Thus, cultivating SDL is not simply a student requirement; it is a systemic imperative.

While SDL is recognised as an essential component of ODeL, research suggests that institutions often assume that SDL is an inherent student capability rather than a learned and supported skill. This assumption results in inadequate design of learning materials, induction programmes, and support systems, which may fail to build SDL competencies (Fiock, 2020).

Many ODeL systems continue to prioritise content delivery over the development of autonomous learning behaviours and metacognitive awareness. Consequently, gaps persist between the demands of ODeL environments and students' readiness to navigate them effectively. Researchers argue that SDL development requires scaffolded learning opportunities, explicit instruction, interactive support, and assessment structures that empower students to gradually assume more control over their learning, as research shows that intentional scaffolding embedded in instructional design enhances learners' autonomy, cognitive engagement, and self-regulated learning behaviours in online and blended environments (Shea & Bidjerano, 2010; Al Mamun & Lawrie, 2024). Without these mechanisms, ODeL risks reproducing inequalities and reinforcing disadvantage among students with limited prior exposure to independent learning.

The need to foster SDL through systemic and contextually responsive strategies is therefore urgent. The landscape of higher education has shifted towards blended and online modalities, making it vital to develop students' capacity to engage autonomously in learning to improve graduation outcomes in South Africa. A stronger institutional focus on SDL could enhance not only academic achievement but also students' confidence, digital resilience, and lifelong learning competencies, preparing graduates for rapidly evolving knowledge and work environments (UNESCO, 2021; World Bank, 2022). This observation highlights the importance of exploring evidence-based approaches that support and promote SDL in ODeL, particularly in contexts characterised by educational inequalities.

In light of these issues, this study seeks to investigate strategies for fostering self-directed learning in an ODeL environment in South Africa. Addressing this need is timely and significant, as it could help close the gap between student expectations and capacities in ODeL. The study aims to strengthen student success in ODeL by examining factors that influence SDL and identifying effective practices and institutional support mechanisms that enhance motivation and engagement. The insights gained could guide lectures and curriculum designers in developing more enabling ODeL systems that build SDL as a core competence. This study, therefore, positions SDL as a transformative lever to improve student outcomes and promote meaningful participation and success in open, distance, and e-learning environments in South Africa.

1.3 PROBLEM STATEMENT

Promoting self-directed learning (SDL) presents both challenges and opportunities in a distance-learning environment. The nature of ODeL requires students to have high motivation, time management skills, and the ability to regulate their own learning. However, many students

who enrol in ODeL programmes are inadequately equipped to learn the self-directed aspect of this mode. (Maphalala & Nkosi,2025) They may encounter difficulties in creating their study schedules or staying motivated without the physical presence of instructors and peers. Consequently, this often leads to higher dropout rates and poorer academic performance than traditional in-person education (Wladis et al., 2016).

Despite the significant benefits of Open and Distance e-Learning (ODeL), such as its flexibility and accessibility, the lack of direct interaction with instructors and peers can hinder the development of SDL skills. (Tabe, Motala & Chiramba, 2025). This necessitates the use of specific strategies and interventions. These strategies could involve the provision of structured study plans, regular virtual meetings with instructors and peers, or the dissemination of self-assessment tools to promote self-reflection and self-regulation. Such strategies and interventions could well be essential for maximising the potential of ODeL and ensuring that students manage their learning journeys. (Maphalala & Nkosi,2025)

Research on self-directed learning highlights the importance of personal attributes such as autonomy, perseverance, and self-confidence, alongside practical skills including the ability to plan, organise, and manage learning resources effectively (Garrison, 1997; Knowles, Holton, & Swanson, 2011). However, current studies often fail to consider how institutional, pedagogical, and technological factors in Open, Distance and e-Learning settings can be optimised to facilitate the better development of these attributes. This knowledge gap is an urgent issue that requires attention. Therefore, this thesis addresses the following question: What strategies and practices can foster self-directed learning among students in an Open Distance E-Learning (ODeL) environment?

The study explores how student traits, instructional design, and technological tools can optimally interact to develop comprehensive strategies that enhance self-directed learning among ODeL students.

1.4 RESEARCH QUESTIONS

1.4.1 Main Research Question

How can Open, Distance and e-learning (ODeL) universities effectively promote self-directed learning among their students to enhance their engagement, autonomy, and academic success?

1.4.2 Research Sub-Questions

1.4.2.1 What factors influence students' self-directed learning in an Open, Distance and e-Learning environment?

1.4.2.2 Which course design and teaching practices support the development of self-directed learning in the ODeL university?

1.4.2.3 What personal attributes and motivations improve self-directed learning in ODeL environments?

1.4.2.4 What support systems nurture self-directed learning among ODeL students?

1.4.2.5 Which demographic factors influence the development of self-directed learning abilities in an ODeL setting?

1.4.2.6 What mechanisms can be put in place to ensure that students become self-directed students in an ODeL institution?

1.5 RESEARCH AIM AND OBJECTIVES

1.5.1 Research Aim

The aim of this study is to explore strategies and practices that open distance e-learning (ODeL) universities may adopt to promote self-directed learning among their students, thus enhancing their engagement, autonomy, and academic success.

1.5.2 Research Objectives

The study seeks to:

1.5.2.1 explore factors influencing students' self-directed learning in an Open, Distance and e-learning environment.

1.5.2.2 determine course design and teaching practices that support the development of self-directed learning in the ODeL university.

1.5.2.3 explore the personal attributes and motivations that improve self-directed learning in ODeL environments.

1.5.2.4 establish which support systems nurture self-directed learning among ODeL students.

1.5.2.5 establish the demographic factors that influence the development of self-directed learning abilities in an ODeL setting; and

1.5.2.6 recommend mechanisms that can be put in place to ensure that students become self-directed students in an ODeL institution.

1.6 DEFINITION OF KEY CONCEPTS

1.6.1 Open, Distance and e-Learning (ODeL)

Open, Distance and e-Learning (ODeL)refers to a mode of online or Web-based Distance Education. More specifically, ODeL refers to “forms of education provision that use

contemporary technologies to enable varied combinations of synchronous and asynchronous communication among learners and educators who are physically separated from one another for part or all of the educational experience (Arinto, 2016).

1.6.2 Self-Directed Learning (SDL)

SDL is a process in which individuals take the initiative to diagnose their own learning needs, formulate their own learning goals, identify resources for learning, choose the appropriate learning strategies and evaluate their own learning outcomes (Knowles (1975)

1.6.3 Students Autonomy

Students' autonomy, as defined by Holec (1981), refers to the ability to take charge of one's own learning. Autonomous students actively engage in reflective learning (Little, 1994). According to Holec (1981), autonomy involves skills such as reflection and analysis.

1.6.4 Student Engagement

According to Trowler (2010), "the interaction between the time, effort, and other relevant resources invested by both students and their institutions is intended to optimise the student experience, enhance students' learning outcomes and development, and improve the institution's performance and reputation".

1.6.5 Digital Pedagogy

Digital pedagogy is the part of pedagogy that concerns the design, implementation, and evaluation of educational situations. It involves a significant component of digital technologies, along with the necessary conditions for their implementation. These include both synchronous and asynchronous interactions in virtual and mixed learning environments; learning management platforms and tools; digital educational resources; various digital applications and tools; virtual assistants for learning and teaching; digital competences in teachers; conducive educational policies; and well-designed digital programmes (Istrate, 2022).

1.6.6 Educational Technology Acceptance

Technology acceptance refers to a user's willingness to use technology for the tasks it is designed to support (Teo, 2011).

1.7 CHAPTER DIVISION

The thesis is organised as follows:

Chapter 1, Background and Orientation to the Study, provides an overview of the research topic, objectives, problem statement, research questions, and definitions of key concepts.

Chapter 2, Literature Review, provides a review of the literature on SDL and ODeL and identifies knowledge gaps. It also establishes the study's theoretical framework.

Chapter 3, Research Methodology, describes the research design, data collection methods, and analytical techniques used in this study.

Chapter 4, Findings and Analysis, presents the research findings and analysis.

Chapter 5, Discussion, interprets the findings in the context of existing research and theory.

Chapter 6, Conclusions, Recommendations, Implications, and Limitations, summarises the key findings, discusses the implications, and offers recommendations, including the ALIGN SDL framework, which shows how SDL may be cultivated in ways that bring together all the essential components of success in SDL in ODeL settings. Recommendations are also made for future research.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

This chapter provides a synthesis of literature on self-directed learning (SDL) within Open, Distance and e-Learning (ODeL) contexts. It examines how SDL has been conceptualised, theorised, and applied in higher education, with particular attention to the South African context. The chapter integrates key theoretical frameworks, including Self-Directed Learning Theory and Transactional Distance Theory, and analyses models and empirical studies that explain how SDL is developed and supported. Emphasis is placed on identifying enabling conditions, constraints and gaps in the literature that inform this study.

2.2 THEORETICAL FRAMEWORK

The study's theoretical framework is underpinned by two interconnected theories: Self-Directed Learning (SDL) Theory and Transactional Distance Theory (TDT). These theories offer a comprehensive perspective for examining the strategies involved in self-directed learning in an Open, Distance and eLearning environment.

2.2.1 Self-Directed Learning (SDL) Theory

SDL Theory, primarily developed by Knowles (1975), emphasises the students' autonomy and responsibility in managing their own learning process. Knowles (1975) defined SDL as follows:

> Self-directed learning is a process in which individuals take the initiative, with or without the help of others, to diagnose their learning needs, formulate learning goals, identify human and material resources for learning, choose and implement appropriate learning strategies, and evaluate learning outcomes (Knowles, 1975).

With self-directed learning, students lead their learning and are primarily responsible for executing and assessing their efforts. Students hold the primary responsibility for their learning (Khiat, 2017). The two broad subdivisions of learning are facilitated learning and self-paced learning (Charokar & Dulloo, 2022). In the former case, an instructor or facilitator delivers the content and engages in face-to-face discussions, virtual online communication, or email posts with the student. Conversely, self-paced learning requires the student to be motivated, have a learning-oriented mindset, and select appropriate resources to master the content. Curriculum planners suggest that the frequent practice of self-directed learning (SDL) cultivates lifelong learning skills among medical undergraduates, enabling them to develop critical thinking, self-regulation, and adaptable learning habits that support ongoing professional growth (Taylor et al., 2023).

The main goal of an SDL curriculum, like any other, is to impart knowledge so that students gain subject mastery and a set of competencies that will prepare them for the world of work. In the context of ODeL, SDL is particularly important. Students need to cultivate their own autonomy and motivation in managing their studies without constant instructor guidance. Maphalala & Nkosi, 2025). However, even though SDL relies heavily on the motivation and competencies of the individual, success in ODeL also requires a conducive pedagogy, the necessary infrastructure, a measure of human support, and functioning digital networks. (Dahal & Bhat, 2023). The study, therefore, examines all components of a successful ODeL experience. It uses SDL Theory to explore how students at an ODeL-based university perceive and develop their self-directed learning skills, and it examines how academics and instructional designers can create conducive learning environments that enhance students' self-directed learning.

2.2.2 Transactional Distance Theory (TDT)

Moore's Transactional Distance Theory offers a framework for understanding the pedagogical dynamics and psychological distance between students and instructors in distance education settings. Moore (1997) states that the first attempt in English to define distance education and articulate a theory appeared in 1972. Later, this explanation of distance education became known as Transactional Distance Theory. Moore explains the thinking behind the theory as follows:

> Distance education is not simply a geographic separation of students and teachers, but, more importantly, is a pedagogical concept. It describes the universe of teacher–student relationships that exist when students and instructors are separated by space and/or time. (Moore, 1997)

This “universe of relationships” can be organised into a typology shaped around the field’s most fundamental constructs, namely the structure of instructional programmes, the interaction between students and teachers, and the nature and degree of the learner’s self-directedness. The concept of transaction is derived from Dewey and Bentley’s (1949) philosophical work, which views learning as a dynamic process emerging from the interaction between individuals and their environments. In distance education, this transaction occurs within conditions of separation between teachers and students, leading to distinctive patterns of teaching and learning behaviour. As Moore (1997) argues, this separation profoundly influences both instructional design and learner engagement, particularly the degree of autonomy required of the learner. When there is a gap between teachers and students, a psychological and communication barrier can arise, leading to misunderstandings between

the instructor's teaching and the student's understanding. This psychological and communication barrier is known as the transactional distance (Moore, 1997).

In the context of ODeL, the lack of physical proximity between teachers and students can exacerbate the sense of separation. This transactional distance (TD) between instructors and students can contribute to students' feelings of isolation and low levels of motivation and engagement, ultimately leading to withdrawal from studies (Moore, 1991). Moore initially proposed that the architects of distance learning should consider structure and dialogue as the two most important factors affecting transactional distance. Here, "dialogue" refers to the back-and-forth between the educator and student, while "structure" refers to the rigidity or flexibility of the teaching techniques and procedures. The degree of distance experienced will depend on how much time and effort are put into dialogue; transactional distance will increase when dialogue is subsumed by structure (Moore, 1973).

Transactional distance is an important consideration in teaching and learning. Moore later proposed that three variables affect transactional distance: dialogue, structure, and student autonomy (Moore, 2002). Teachers and students engage in dialogue during interactions, with one communicating information and the other responding (Moore & Kearsley, 1996). The relationship subsequently becomes purposeful, constructive and valued by both parties. The course content, delivery medium, teachers' philosophy and emotional characteristics, and students' personalities directly affect the extent and quality of the dialogue. Transactional distance will either be overcome or remain depending on the extent of this variable (Moore & Kearsley, 1996).

Transactional Distance Theory (TDT) is useful because it describes how different levels of dialogue, infrastructure, and students' autonomy affect students' involvement and achievement. (Achuthan, Kolil, Muthupalani & Raman, 2024) This study employs TDT to investigate how lecturers and instructional designers use these elements to decrease transactional distance, improve communication, and harmonise course organisation to encourage self-directed learning. TDT explains how various course organisation and delivery arrangements affect students' perceptions of distance and their capacity to engage in self-directed learning.

SDL Theory explains the internal, individual processes that promote self-direction. TDT Theory provides a model for understanding the external, contextual factors that affect student engagement and independence in ODeL. Collectively, these theories provide a comprehensive framework for examining how self-directed learning may be fostered in an ODeL university, explaining both students' internal motivations and abilities, as well as the

external course structures, interactions, and institutional support systems that shape their learning experiences.

2.3 CONCEPTUALISATION OF OPEN, DISTANCE AND E-LEARNING (ODeL)

Open, Distance and e-Learning (ODeL) refers to the provision of education in a way that combines the openness of access and progression, the spatial–temporal separation of distance education, and the affordances of digital technologies to mediate teaching, learning and support at scale and at a distance. Classical distance education research conceptualised the mode as an integrated "system" comprising course design, materials development, student support, logistics, assessment, and quality assurance (Moore & Kearsley, 2012). Current definitions emphasise the "e" in ODeL (learning management systems, analytics, mobile access, web conferencing), but retain the defining characteristics of openness, flexibility, and mediated interaction (Simonson et al., 2019; Singh & Thurman, 2019). In South Africa, policy usage aligns ODeL with "open learning" principles (equity of access, flexibility of curriculum and assessment, student support) and with distance delivery using appropriate technologies to widen participation while safeguarding quality (DHET, 2013; CHE, 2014). UNISA was historically the first university mandated to offer distance education as its primary mode, and its institutional model has strongly shaped national understandings of ODeL (Unisa, n.d.).

ODeL is not a singular pedagogy but a mode within which multiple pedagogies operate. Anderson and Dron (2011) showed how distance education has cycled through several "generations": behaviourist/cognitivist (content-centred, independent study), social-constructivist (dialogue-centred, networked), and connectivist (participatory, connected), each scaffolded by prevailing technologies. Current practice typically blends these, using Learning Management Systems (LMS) to mediate content and assessments (Anderson & Dron, 2011). It also uses synchronous web conferencing for presence and immediacy, and forums or social platforms for peer knowledge construction (Simonson et al., 2019).

2.3.1 Definition and Characteristics of ODeL

At its core, ODeL entails planned teaching and purposeful support, with teachers, students, and resources separated in time and/or place, and communication mediated by print and digital technologies. Salient characteristics include structured instructional design; mediated interaction (student–content, student–teacher, student–student); flexibility in pacing and location; an emphasis on student support systems; and robust logistics and quality assurance to operate at scale (Moore & Kearsley, 2012; Simonson et al., 2019; CHE, 2014). In policy

terms, South Africa's open learning stance adds commitments to the recognition of prior learning, flexible pathways, and barrier reduction for historically excluded groups (DHET, 2013; CHE, 2014). Singh and Thurman (2019) warn against equating "online" with "distance".

2.3.2 Historical Evolution of ODeL Globally and in South Africa

The lineage of distance provision runs from 19th-century correspondence study (printed matter distributed through the post), through broadcast media (education delivered via radio and television), to computer-mediated and networked learning, culminating in today's data-rich, cloud-hosted ecosystems (Moore & Kearsley, 2012; Simonson et al., 2019). Milestone institutions include the University of London's external studies and, later, open universities that institutionalised distance teaching as a public mission, such as the UK Open University, or OU (OU, 2024). South Africa occupies a distinctive place in this history: UNISA, legislatively designated in 1946 as a dedicated distance-education university, became a global reference point for massified, print-based (and later digital) distance education (UNISA, n.d.). The post-1994 expansion of higher education, together with global massification trends (Altbach et al., 2009), intensified ODeL's role in widening educational access.

A complementary way to read this evolution is through "generations" of delivery. Taylor's well-cited schema tracks a progression from the correspondence model (Gen-1) to multi-media (Gen-2), synchronous tele-learning (Gen-3), flexible, asynchronous online learning with interactive media (Gen-4), and "intelligent flexible learning" (Gen-5) in which automation, databases, adaptive tools and student self-service integrate deeply with pedagogy and administration (Taylor, 2001; see also Anderson & Dron, 2011; Simpson, 2018). South African ODeL providers have traversed these stages unevenly, often blending print with a Learning Management System, SMSes, low-bandwidth mobile access, and occasional synchronous sessions to accommodate infrastructural realities (CHE, 2014; Mare & Muteza, 2021).

2.3.3 Characteristics (Design, Interaction, Support and Quality)

From the literature, four clusters of ODeL characteristics appear to emerge. The first is *instructional design at scale*. In ODeL, the curriculum is disaggregated into teachable units, each well scaffolded, with alignment among outcomes, activities and assessment (Moore & Kearsley, 2012; Simonson et al., 2019). The second is *interaction and presence*. Learning effectiveness hinges on structured dialogue to reduce "transactional distance" through timely feedback, formative assessment, facilitation, and peer interaction (Moore, 1991; Anderson & Dron, 2011). Third, *student support ecosystems play* an essential role. Staff are available to advise, tutor (or e-tutor), and teach academic literacies, and psychosocial support and call-

centre/help-desk services are made available for extra assistance (Simpson, 2018; Mare & Muteza, 2021). Fourth, there is *assurance of quality*: Quality is protected through mode-specific standards, such as materials, assessment integrity, support ratios, and responsiveness (CHE, 2014; Aluko, 2020).

2.3.4 Benefits and Challenges in the South African Context

The benefits of ODeL are often remarked on: It increases educational access for working adults and rural students; it allows flexibility in time and place; it is cost-effective; and the pedagogies used may be diversified based on analytics (DHET, 2013; Simonson et al., 2019; Mare & Muteza, 2021). In South Africa, ODeL has been central to redress and participation goals, enabling tens of thousands of first-generation students to enter higher education (CHE, 2014). However, these benefits are counterbalanced by persistent and systemic challenges. While open, distance e-learning (ODeL) has expanded access for working adults, rural students, and first-generation entrants, offering flexibility, cost efficiency, and diversified pedagogies supported by learning analytics (DHET, 2013; Simonson et al., 2019), these advantages do not translate uniformly into student success. For many students, isolation, lack of academic literacies, language barriers and limited metacognitive skills can create barriers. For ODeL to achieve its purposes, these barriers need to be addressed (CHE, 2014; Aluko, 2020). Longitudinal analyses in South Africa reveal stubbornly high dropout rates, particularly in distance programmes, emphasising the need for mode-appropriate pedagogy and support (CHE, 2016, summarised in Aluko, 2020).

These challenges intersect with the purpose of this study; ODeL success is inseparable from self-directed learning capacities, yet SDL cannot be assumed; it must be explicitly taught, scaffolded and supported, particularly for students transitioning from teacher-centred schooling

2.3.5 ODeL in the South African Policy and Institutional Context

National policy frames ODeL within an “open learning” paradigm. Its goal is educational equity, created through flexible admissions, credit accumulation and ease of transfer, recognition of prior learning, diversified delivery, and student support. Together, these ensure *both epistemic and* formal access (DHET, 2013). The Council on Higher Education’s sector-wide framework emphasises that distance provision requires bespoke standards for curriculum design, assessment integrity, contact-time equivalence, staff capacity, and resourcing, rather than simple transposition from contact modalities (CHE, 2014). These positions recognise UNISA’s historic role and the growth of distance offerings across public universities. Oosthuysen et al.

(2024) note that research continues to flag the pressures experienced by ODeL institutions, including the pressure to admit large numbers of students, funding pressures, and the imperative to couple access with success.

2.3.6 The role of technology in facilitating ODeL

Technology is an enabler rather than an end. With ODeL, a Learning Management System (LMS) coordinates lecturer and student activities and assessment; LMS analytics support proactive identification of at-risk students; the “mobile-first” design mitigates bandwidth constraints; and synchronous tools create immediacy and social presence when used judiciously (Anderson & Dron, 2011; Simonson et al., 2019; Mare & Muteza, 2021). In South Africa, the tendency has been to blend PDF/print packs, mobile-friendly LMS, short messages via SMS, low-bandwidth audio, and WhatsApp communities, and occasional webinars optimised for affordability and reliability (CHE, 2014; Mare & Muteza, 2021). Technology also underwrites administrative automation. ODeL institutions use e-admissions, e-advising, online proctoring, and knowledge bases, which can reduce transactional distance if coupled with humane, responsive support (Taylor, 2001; Simpson, 2018). The promise is significant, but technology choices must be guided by the realities of infrastructure and cost in the Global South (CHE, 2014).

2.4 MODELS OF SELF-DIRECTED LEARNING (SDL)

A mature understanding of SDL requires attention to how scholars have theorised its mechanisms and developmental pathways. Classic models of self-directed learning include Brockett and Hiemstra’s(1991) Personal Responsibility Orientation (PRO), Candy’s (1991) four-dimensional account, Grow’s Staged Self-Directed Learning Model (SSDLM), and Garrison’s comprehensive model. Each of these highlights different levers of SDL, such as responsibility, autonomy/control, instructional staging, and regulation/motivation. Additional contributions to online and blended environments include Song and Hill’s model and Hiemstra and Brockett’s (1991) Person–Process–Context (PPC) update. These additions create more intentional linkages with ODeL, incorporating transactional distance, digital mediation, and equity constraints into the models (Garrison, 1997; Hiemstra & Brockett, 2012; Song & Hill, 2007). Each of the four main SDL models are discussed below.

2.4.1 Brockett and Hiemstra’s Personal Responsibility Orientation (PRO) Model

The PRO model defines SDL as both a process (self-directed learning) and a student attribute (self-directedness), situated within a broader social context (Brockett & Hiemstra, 1991).

Central to the model is the construct of personal responsibility. According to the model, students must be willing to take ownership of decisions that affect their studies. This willingness is affected by two interrelated domains: the characteristics of the teaching–learning transaction (such as the learning "climate", the quality of facilitation, and resources) and the individual's disposition and skills (their initiative, self-discipline and metacognitive awareness). Rather than treating SDL as an all-or-nothing trait, PRO conceptualises a continuum along which students can move as knowledge, skills, and confidence accrue and transfer across settings (Hiemstra, 1994). In practice, this implies that instructional elements, such as clarity of goals, the availability of feedback, and the degree of learner choice, can either enable or suppress self-directedness, altering the extent of responsibility students can realistically exercise. A later refinement of the model, explicitly the Person–Process–Context (PPC) framing, reaffirms that neglecting any one element risks fragile SDL: for example, a strong personal disposition to study without enabling processes or supportive contexts will not sustain autonomous study in ODeL (Hiemstra & Brockett, 2012). In South African ODeL, the PRO/PPC emphasis on context is especially salient given infrastructural asymmetries and language diversity, which may limit students' capacity to enact responsibility without targeted scaffolding (Maré & Mutezo, 2021).

2.4.2 Candy's Four-Dimensional Model

Candy (1991) advanced SDL theory by separating the SDL method from the SDL goal. Here, the method refers to the processes by which learning is self-directed, while the goal (or outcome) refers to self-direction as an educational end. Candy (1991) stresses that these aspects will differ according to whether the setting is formal or non-formal. He proposed four interacting dimensions in SDL: *Personal autonomy* refers to the student's independent stance and values; importantly, autonomy is situational, varying across domains and over time. Candy cautions against essentialising students as "self-directed" or not. *Self-management* captures the willingness and competence to organise learning planning, time management, and resource curation. At the same time, *student control* concerns the degree of influence students exert over instructional decisions (pace, sequencing, assessment modes), often negotiated with teachers and institutions. Finally, *autodidaxy* denotes learning outside formal structures, such as through social networks, communities, and workplaces.

Candy's distinctions anticipate current ODeL realities, where students may be highly autodidactic in their use of technology yet require structured self-management supports in formal online modules. Although later commentators note that Candy's model lacks a prescriptive instructional aspect, his conceptual clarity remains influential for designing

curricula that differentiate between cultivating graduate autonomy and providing day-to-day mechanisms for student control in digitally mediated courses (Candy, 1991).

2.4.3 Grow's Staged Self-Directed Learning Model (SSDLM)

Grow (1991, 1994) shifted attention to instructional staging, arguing that students' readiness for SDL (a mix of motivation and ability) is situational and develops through four stages in interaction with teachers' roles. In Stage 1 (the "dependent" stage), students require explicit direction; teachers act as authoritative coaches, tightly structuring tasks. In Stage 2 (the "interested" stage), motivation increases; teachers become motivators who explain relevance and model strategies. In Stage 3 (the "involved" stage), students co-plan and benefit from facilitation, peer collaboration, and guided inquiry, with teachers operating as facilitators. In Stage 4 (the "self-directed" stage), students assume primary responsibility; teachers serve as consultants, providing resources and formative critique for student-defined projects. Crucially, progression is non-linear and reversible. Effective instructors switch between roles to avoid both over-structuring and forcing premature independence (Grow, 1991). Recent studies in online/blended settings corroborate that deliberate scaffolding and goal-setting templates, reflective checkpoints, and gradually increased choice accelerate movement toward Stages 3–4, while abrupt withdrawal of structure can depress motivation. Many authors have cautioned that pedagogic techniques alone cannot substitute for genuine student motivation (Deci & Ryan, 2000; Dabbagh & Kitsantas, 2012; Kuo, Walker, Schroder, & Belland, 2014).

Table 2.1 shows the four stages of SSDLM and sample activities for student–teacher pairings. The teacher maintains instruction in the matched role for a predetermined period, then switches to a higher-level teacher's role. It is hypothetically accepted that students will be ready for the following stages at the end of these pre-determined periods (Doğru & Özen, 2023).

. Table 2.1: The Staged Self-Directed Learning Model

Stage	Learner	Teacher	Examples
Stage 1	Dependent	Authority	Coaching with immediate feedback. Drill. Informational lecture. Overcoming deficiencies and resistance.
Stage 2	Interested	Motivator	Inspiring lecture plus guided discussion. Goal setting and learning strategies.
Stage 3	Involved	Facilitator	Discussion facilitated by teacher who participates as equal. Seminar. Group projects.
Stage 4	Self-directed	Delegator	Internship, dissertation, individual work or self-directed study-group

Source: Grow (1991)

Table 2.2 shows 16 student–teacher pairings that are probable during SDL instruction. Four pairings are labelled as “match”, and the other six pairings are labelled as “near match”, all of which are accepted as ideal in SSDLM. On the other hand, the four pairings labelled “mismatch” and two labelled “severe mismatches” are identified as problems to solve. Therefore, in such a case, the teacher will switch to the appropriate roles; otherwise, students may resent either excessive guidance or too much freedom.

Table 2.2: Student–teacher pairings in the Staged Self-Directed Learning Model

	T1: Authority	T2: Motivator	T3: Facilitator	T4: Delegator
L4: Self-directed	Severe mismatch	Mismatch	Near match	Match
L3: Involved	Mismatch	Near match	Match	Near match
L2: Interested	Near match	Match	Near match	Mismatch
L1: Dependent	Match	Near match	Mismatch	Severe mismatch

Source: Grow (1991)

2.4.4 Garrison’s Model of Self-Directed Learning

Garrison (1997) synthesised SDL’s cognitive and motivational architecture into three interlocking dimensions: self-management, self-monitoring and motivation.

Self-management concerns external task control: activating goals, organising resources, and coordinating learning activities, often collaboratively in facilitator-supported environments, particularly relevant to ODeL groupwork. *Self-monitoring* addresses internal meaning-making via cognitive and metacognitive processes; students plan, monitor, and evaluate understanding, exercising evaluative judgement about evidence and quality standards. *Motivation* is the pervasive driver of everything else, with entering motivation (the decision to participate in light of perceived relevance and attainability) and task motivation/volition (sustained effort and persistence under competing demands). Drawing on Bandura’s self-efficacy model, Garrison’s model of self-directed learning positions volition as “metamotivational”; it may be understood as the executive capacity to protect intentions against distraction and delay (Garrison, 1997). In simple terms, volition refers to the individual will. In ODeL, temporal dislocation and the absence of a lecturer or supervisor place additional demands on students to self-regulate. Garrison’s emphasis on volition and a balance between dialogue and structure aligns closely with Transactional Distance Theory and the findings of Shearer et al. (2020). These authors found that students respond well to analytics-informed “nudges" to keep going, clear pacing, and timely formative feedback.

2.4.5 Models Oriented to Online/ODeL Contexts

Anticipating today's digitally mediated mainstream, Song and Hill (2007) proposed a conceptual model for SDL development in online environments. Their model organises determinants of success into personal attributes (such as prior knowledge, efficacy, and being goal-oriented), processes (planning, the use of strategy, and monitoring), and learning context (task structures, technological affordances, and social presence). Their key contribution to understanding self-directed learning is to view context not as a backdrop but as a co-determinant that enables or constrains SDL. This insight is echoed in Hiemstra and Brockett's (2012) Person–Process–Context (PPC) reframing, which sees all three aspects (person, process, and context) as equally essential components of successful SDL. For ODeL in South Africa, this triadic view is instructive: even highly motivated students may stall if bandwidth constraints, opaque assessment rubrics, or limited academic literacy support undermine process and context (Maré & Mutezo, 2021). Building on these foundations, established self-directed and self-regulated learning research advances phased developmental frameworks to facilitate SDL in higher education. Such frameworks typically begin with an orientation and diagnostic phase, in which learners' readiness gaps and learning constraints are identified; progress to a supported performance phase, characterised by structured guidance, feedback, and scaffolded learning tasks; move into a guided independence phase, where learners engage in reflective self-assessment and increasing responsibility for learning decisions; and culminate in an autonomous application phase, in which students undertake authentic, self-managed learning tasks. This phased progression is consistent with Garrison's (1997) comprehensive SDL model and Zimmerman's (2002) cyclical self-regulation framework, both of which conceptualise learner autonomy as developmental rather than innate. Although articulated outside the South African context, this phased logic aligns closely with SSDLM and PPC principles and maps effectively onto ODeL programme design, where progressive autonomy and culturally responsive scaffolding are central to SDL development (Adigun et al., 2025; Maphalala & Nkosi, 2025).

2.4.6 Synthesis and Implications of SDL Models for Open, Distance and eLearning

The four models of SDL discussed in Sections 2.4.1 to 2.4.3 have three aspects in common of relevance to ODeL: First, they all emphasise "stage and scaffold": in other words, they treat SDL as developing and not a given, and seek to align teacher roles, task structures, and students choice with individual student readiness (Grow, 1991; Song & Hill, 2007). Second, they all balance autonomy with structure; they emphasise transparent outcomes, pacing, and feedback cycles to support volition and self-monitoring without eradicating student control (Garrison, 1997; Shearer et al., 2020). Third, they stress that context must be engineered;

they emphasise that, for maximum self-directed learning, environmental frictions such as limited bandwidth and the use of only one language must be reduced. Engineering would also include strengthening social presence by providing e-tutors and peer communities and using analytics and AI ethically to personalise feedback (Maré & Mutezo, 2021; Maphalala et al., 2025; Adigun et al., 2025). For South African ODeL institutions, the PPC model is a reminder that context is constitutive. This is a critical insight. Without attention to infrastructural and linguistic realities, the promise of SDL remains aspirational rather than achievable for many students.

2.5 THEORETICAL FRAMEWORKS UNDERPINNING SELF-DIRECTED LEARNING

Since the 1970s, self-directed learning (SDL) has matured from a set of practices in adult education to a multi-theoretical construct used to explain how students plan, enact, and evaluate their own learning across formal, non-formal, and informal settings (Manning, 2007). At its core, SDL describes autonomous activity initiated by the student, sometimes with structured scaffolds, sometimes without, but always organised around student-determined needs, goals, strategies, and standards of evidence (Knowles, 1975). Studies emphasise that SDL is not a fixed trait but a situated accomplishment emerging from the dynamic interplay of students' characteristics and the affordances and constraints of context (Garrison, 1997; Hiemstra & Brockett, 2012). In higher education, particularly in Open, Distance and e-Learning (ODeL), this interplay is amplified: temporal and spatial separation increase demands on motivational and self-regulatory resources, while digital systems expand possibilities for autonomy and feedback (Shearer et al., 2020). Four complementary theoretical traditions consistently underpin SDL scholarship and practice: constructivism, andragogy, experiential learning, and self-determination theory (SDT). Together, they offer a strong rationale for why and how students assume responsibility for learning. They also have strong design implications for ODeL.

2.5.1 Constructivism (Vygotsky, Piaget)

Constructivist Theory positions students as active sense-makers who build new understandings by integrating experiences with prior knowledge through cycles of exploration, reflection, and adaptation (Piaget, 1970; Vygotsky, 1978). From Piaget’s perspective, SDL is the self-initiated orchestration of assimilation and accommodation in order to resolve cognitive conflict; from Vygotsky’s perspective, SDL involves progressively internalising the dialogic regulation that occurs within the zone of proximal development through mediated activity, language, and tools. In both views, effective SDL requires access to rich problems, conceptual tools, and social others whose guidance can be appropriated over time. Hence, the persistent

design finding is that “independent” learning thrives when social and symbolic mediation are intentionally engineered (Dabbagh & Kitsantas, 2012).

In ODeL contexts, constructivism translates into scaffolded tasks that prompt hypothesis-testing, explanation, and critique; multimodal resources that connect abstract ideas with authentic data; and collaborative structures that maintain cognitive challenge while gradually giving students more responsibility (Anderson & Dron, 2011). Studies confirm that the constructivist approach aligns well with problem-centred activities, debate forums, instructor modelling, and structured peer reviews. All of these enhance metacognitive monitoring and evaluative judgement, two hallmarks of SDL (Panadero, 2023). Where digital inequality or academic literacy gaps exist, a sound constructivist design would add language-aware scaffolds and low-bandwidth alternatives so that epistemic access does not depend on technological privilege (Maré & Mutezo, 2021).

2.5.2 Andragogy (Knowles)

Knowles provides an explicit adult-learning rationale for SDL in his theory of andragogy, arguing that adults move “toward self-direction as [their] self-concept moves from one of being a dependent personality toward being a self-directed human being” (Knowles, 1975, p. 19). Adults bring extensive experience to the learning task, which serves as both a resource and a lens. For adults, the readiness to learn is closely tied to developmental tasks and social roles; their orientation is problem-centred and immediately applicable; and their motivation is primarily internal. SDL operationalises these assumptions by making students co-authors of diagnostics, goal-setting, resource selection, and evaluation (Manning, 2007; Knowles et al., 2015). Andragogy emphasises that conditions should be enabling, criteria should be transparent, students must be given choices and timely feedback, and lecturers should recognise students’ identities and constraints, rather than withdrawing their guidance (Knapke et al., 2024). In ODeL, andragogy supports offering flexible pathways, micro-credential options, recognition of prior learning, and life-relevant projects, while maintaining clarity about workload and standards. Where cohorts include younger or first-generation students, the andragogical promise of autonomy should be paired with explicit instruction in SDL strategies to prevent autonomy from becoming abandonment (Robinson & Persky, 2020).

2.5.3 Experiential Learning

Experiential learning theories assert that knowledge arises through the transformation of experience via iterative cycles of doing, reflecting, conceptualising, and experimenting (Kolb, 1984). Jarvis (2006) expands this to a broader sociology of learning, in which disjuncture

between expectation and experience triggers reflection and action. With SDL, experiential learning provides the mechanism for purposeful practice: students diagnose needs, design or select experiences, keep evidence of performance, reflect on outcomes, and refine strategies. The “experience–perception–cognition” triad described in experiential accounts aligns with the cognitive and metacognitive components of SDL, i.e., attention to phenomena, interpretation through frameworks, and regulation of subsequent action (Illeris, 2007). In ODeL, experiential learning may take place through simulations, virtual labs, community-engaged tasks supported at a distance, e-portfolios, and reflective journals that make thinking visible over time (Gikandi et al., 2011). Research shows that authentic online tasks tied to local contexts sustain persistence and deepen self-monitoring, especially when paired with structured reflection prompts and exemplars (Huang et al., 2023; Adigun et al., 2025).

2.5.4 Self-Determination Theory (Deci & Ryan)

Self-Determination Theory (SDT) explains the motivational aspect of self-directed learning by positing that the quality and persistence of an individual’s engagement with studies depend on support for three basic psychological needs: autonomy (a sense of volition), competence (efficacy and perceived capability), and relatedness (meaningful connections with others) (Deci & Ryan, 2000; Ryan & Deci, 2020). SDL flourishes when learning climates offer meaningful choices, challenging tasks with scaffolded feedback, and social presence that imparts a sense of care and inclusion. Entering motivation (choosing to engage) and task motivation (sustaining effort) are strengthened when students perceive value, the expectancy of success, and a sense of belonging. These perceptions align with Garrison’s SDL model, which emphasises the individual will (Garrison, 1997). In ODeL, SDT explains why equating “openness” with minimal structure often has an adverse effect on persistence: autonomy without competence and relatedness leads to a drop in motivation. Accordingly, designs that combine clear pacing guides, prompt feedback, accessible e-tutoring, and opportunities for reciprocal peer support result in improved retention and attainment by students (Shearer et al., 2020). Emerging evidence on AI-enabled supports in ODeL suggests that adaptive feedback and “just-in-time” nudges or prompts can bolster perceived competence and autonomy when implemented transparently and ethically. However, vigilance is needed to avoid over-reliance and inequitable access (Maphalala et al., 2025).

2.5.5 Application of these theories to ODeL environments

Applying these four theories, constructivism, andragogy, experiential learning, and Self Determination Theory, to ODeL yields an integrated design logic. Constructivism argues for epistemic scaffolding, structured problems, modelling, and dialogue tools to cultivate self-

monitoring and evaluative judgement at a distance. Andragogy argues for choice and relevance, co-created goals, multiple pathways, and authentic assessments that respect adult identities and purposes. Experiential learning argues for authentic activity and reflection e-portfolios, practice tasks, and reflective cycles that make learning visible and improvable outside the classroom. SDT argues for the need for supportive climates, a balance between autonomy and supportive communication, mastery-oriented feedback, and social presence that convert access into sustained engagement.

In South Africa and the wider African region, contextual constraints such as bandwidth variability, multilingual cohorts, and first-generation status make the Person–Process–Context alignment indispensable: interventions must be linguistically inclusive, bandwidth-sensitive, and justice-oriented if SDL is to be equitably achievable (Hiemstra & Brockett, 2012; Maré & Mutezo, 2021). Studies on ODeL in the region confirm that when institutions pair orientation to SDL with digital-literacy support, mentoring, and culturally responsive materials, students report higher autonomy, improved time management, and better throughput; where such supports are thin, autonomy collapses into isolation (Maphalala & Nkosi, 2025; Adigun et al., 2025). In short, SDL in ODeL is most successful when these theories are treated as complementary levers for engineering learning environments that are simultaneously rigorous, humane, and context-responsive.

2.6 CONCEPTUALISATION OF SELF-DIRECTED LEARNING IN HIGHER EDUCATION AND ODeL CONTEXTS

2.6.1 Defining Self-directed Learning (SDL)

Self-directed learning (SDL) has evolved into a central construct in higher education, particularly in flexible, online, and distance-learning environments where students are required to assume greater responsibility for their own learning. Although the concept predates formal theorisation, Malcolm Knowles' work in the 1970s marked the first systematic attempt to define SDL within the broader framework of adult education. Knowles (1975) provided a foundational definition that remains widely referenced, describing SDL as

> a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes (Knowles, 1975, p. 18).

This seminal definition foregrounds student agency and positions SDL as an intentional, active, and reflective learning process that extends beyond formal instruction. Knowles argued that students who initiate and direct their own learning tend to demonstrate deeper engagement and improved knowledge retention than those who adopt passive, teacher-dependent roles. (Knowles, 1975). While Knowles' theorisation of SDL was initially located within the domain of andragogy, premised on the assumption that adult students are autonomous, self-motivated, and draw on life experience as a learning resource, current research acknowledges that SDL is relevant across levels of education, including undergraduate and postgraduate studies in both contact and distance modalities. For this reason, andragogy is referenced here only briefly as a historical anchor rather than a restricting lens, recognising that SDL is now widely applied in adolescent, adult, and lifelong learning contexts.

Following Knowles' early contribution, SDL was conceptualised not only as a process but also as a student attribute. Guglielmino (1977) advanced SDL research by focusing on students' dispositions and introducing the Self-Directed Learning Readiness Scale (SDLRS). The SDLRS sought to measure an individual's readiness or predisposition to engage in SDL, assuming that SDL capability varies among students. Guglielmino and Guglielmino (2001) emphasised that highly self-directed students typically demonstrate initiative, curiosity, persistence, self-discipline, responsibility, and effective organisational skills. These students proactively identify their learning needs, manage their learning environments, and evaluate the relevance and quality of their learning. The SDLRS, developed through the Delphi technique, became widely used to assess SDL readiness, particularly in adult education, professional learning, and health sciences training. However, its validity has sparked ongoing debate, especially regarding cultural bias and its emphasis on psychological traits rather than contextual influences.

In response to critiques of the original Self-Directed Learning Readiness Scale (SDLRS), Fisher, King, and Tague (2001) developed a refined instrument, the Self-Directed Learning Readiness Scale for Nursing Education (SDLRSNE). This scale conceptualises SDL readiness as a multidimensional construct comprising self-management, desire for learning, and self-control. Self-management refers to learners' capacity to organise their learning environment and manage time and resources effectively; desire for learning reflects intrinsic motivation and positive orientations toward learning; and self-control captures learners' ability to set goals, monitor progress, and take responsibility for learning outcomes. Subsequent studies across nursing and broader higher-education contexts have applied and validated the scale, confirming its robustness and usefulness in measuring SDL readiness (Cadorin et al.,

2017; Fisher & King, 2010). Collectively, this body of work strengthened the psychometric assessment of SDL and contributed to a conceptual shift from viewing SDL as a fixed personal attribute toward understanding it as a developable, multi-component learning capability.

As SDL research expanded beyond adult learning, researchers increasingly highlighted the contextual and interactive dimensions of SDL. Early interpretations tended to portray SDL as an individualistic, isolationist activity, but subsequent work challenged this view. Brockett and Hiemstra (1991) distinguished between self-directed learning (a teaching–learning process) and student self-direction (a personal attribute), emphasising the need to consider both the student and the learning environment. This distinction highlights that SDL is not solely about individual autonomy but also about the extent to which educational structures allow students to exercise agency. Later theorists advanced this relational perspective, arguing that SDL requires both student initiative and institutional support to flourish (Candy, 1991; Merriam & Baumgartner, 2020). This view paved the way for more socially situated and collaborative interpretations of SDL, which are particularly relevant for digitally mediated learning.

Research continues to refine the conceptualisation of SDL, positioning it as a dynamic, developmental, and cyclical process rather than a static capacity. Researchers such as Kim et al. (2023) conceptualise SDL as an interplay of cognitive, motivational, metacognitive, and behavioural processes that enable students to regulate and adapt their learning. These processes involve setting goals, monitoring progress, managing emotions, and adjusting strategies in response to feedback and challenges. Crucially, SDL is understood today as both a skill to be learned and a capability to be nurtured, particularly in environments where students must navigate complex digital platforms with reduced lecturer supervision.

As a result, SDL has become embedded within higher education discourse as a core graduate attribute, especially in contexts that value lifelong learning, digital competence, and independent problem-solving. Within ODeL environments, SDL is not merely desirable but essential, given the increased student responsibility required for student persistence and success. The following sections explore the attributes of self-directed students, the multidimensional nature of SDL, and the ways in which SDL manifests in ODeL ecosystems.

2.6.2 Characteristics of Self-Directed Learning

The characteristics of self-directed students have been widely documented in the literature, reflecting the personal, behavioural, and cognitive traits that enable students to assume ownership of their learning processes. Knowles (1977) suggested that self-directed students display self-motivation, autonomy, curiosity, and a willingness to take responsibility for their

learning decisions. Although these qualities were initially described in the context of adult learning, subsequent studies demonstrate that they are equally relevant in current higher education environments, including undergraduate and postgraduate study. A self-directed student is often described as one who sets clear learning goals, organises their learning effectively, monitors their progress, and evaluates learning outcomes critically (Brockett & Hiemstra, 1991; Tekkol & Demirel, 2018).

Brockett and Hiemstra (1991) differentiated between the personal attribute of student self-direction and the instructional process of self-directed learning, arguing that while some students may possess internal characteristics that predispose them to SDL, appropriate educational environments and facilitative teaching strategies can enhance such qualities. This distinction highlights the importance of recognising both intrinsic dispositions and external conditions that cultivate self-direction. Students are not inherently self-directed; instead, they acquire self-direction through experiences that promote autonomy, reflection, and critical engagement.

O'Shea (2003) notes that self-directed students demonstrate the capacity to formulate their own learning needs and goals, plan and manage learning tasks, and reflect on and evaluate the effectiveness of their learning strategies. These characteristics align with the principles of deep learning, as self-directed students tend to be intrinsically motivated and engage in learning that extends beyond rote memorisation, favouring critical inquiry and conceptual understanding (Spencer & Jordan, 1999). O'Shea (2003) argues that SDL fosters self-confidence, autonomy, and lifelong learning skills, assisting students to adapt to evolving professional and societal demands. In higher education, where knowledge is continuously expanding, these attributes are increasingly recognised as essential for student success and graduate employability.

Knowles (1977, as cited in Kasworm, 1983) identified several competencies required for successful self-direction. These include the ability to create a psychologically safe learning environment, to take responsibility for identifying one's learning needs, to set appropriate learning goals, and to plan, implement, and evaluate learning activities. This conception covers a range of skills needed – interpersonal, intrapersonal, and organisational. It also suggests that educators play a facilitative rather than a directive role, providing scaffolding, feedback, and support to promote independence rather than dependence. In this sense, SDL does not imply learning in isolation; instead, it involves constructive engagement with educators, peers, and learning resources.

Tekkol and Demirel (2018) reiterate that self-directed students exhibit autonomy, self-control, motivation, openness to learning, and a willingness to engage in reflective practice. These students value learning as a process, not merely an outcome, and demonstrate perseverance and resilience in the face of academic challenges. They are also adept at accessing and evaluating diverse learning resources. This is a skill that has become increasingly crucial in digital learning environments, where information is abundant and of varied quality. This ability to navigate information sources, including digital repositories, academic journals, peer networks, and technological tools, differentiates successful self-directed students from those who remain passive or overwhelmed by the sheer number of choices.

While early SDL literature tended to generalise about the characteristics of self-directed students, research highlights the importance of contextual sensitivity. For instance, cultural norms, prior educational experiences, and language proficiency influence students' capacity for self-direction (Hofstede, 2011; Czerniewicz et al., 2020; Prinsloo, 20201). It is worth noting that in collectivist cultures, such as those that prevail in Africa, interdependence and group learning are normative. In such cultures, students may prefer collaborative approaches and expect structured guidance, which may initially appear inconsistent with Western conceptions of SDL that foreground individual autonomy. Therefore, a culturally responsive understanding of SDL acknowledges that students may express self-direction differently across contexts, and that autonomy can be nurtured through relational and community-based learning practices as well as individualised approaches.

The rise of online and distance learning has further transformed the characteristics of self-directed students. Students in digital environments must navigate virtual platforms, manage asynchronous learning schedules, and proactively seek support, often without immediate lecturer intervention. Digital self-directed learning requires not only traditional SDL characteristics but also digital literacy, effective self-regulation in online environments, and the ability to manage distractions, as current research shows that digital literacy and online learning readiness significantly influence students' capacity to engage autonomously with online learning (Alanoglu, Karabatak & Yang, 2025). Consequently, the profile of a self-directed student in ODeL includes technological autonomy, online communication skills, and the capacity for self-motivation in the absence of physical learning communities.

The literature affirms that SDL characteristics are multi-layered and context-dependent. While intrinsic motivation, autonomy, and reflection remain core qualities, SDL development also depends on external support, cultural context, and exposure to learning experiences that cultivate self-direction. (Charokar & Dulloo, 2022). The following subsection, therefore,

examines how SDL has increasingly been understood as a multidimensional construct encompassing interrelated cognitive, motivational, behavioural, and metacognitive dimensions, rather than merely a matter of students' ability.

2.6.3 Self-Directed Learning as a Multidimensional Construct

Over the past three decades, the conceptualisation of self-directed learning has shifted from a predominantly behavioural orientation to a more holistic, multidimensional understanding. Early formulations tended to emphasise behavioural characteristics, such as students' ability to set goals and manage learning activities independently. However, subsequent theorisation demonstrated that SDL is far more complex, involving the interaction of cognitive, metacognitive, motivational, and behavioural processes that enable students to plan, enact, monitor, and evaluate their learning. Garrison's (1997) influential model was pivotal in reconceptualising SDL as a multidimensional construct comprising self-management, self-monitoring, and motivation, and in illustrating that SDL is not a solitary act of learning but a dynamic interplay between personal agency and contextual support.

According to Garrison (1997), self-management refers to the behavioural dimension of SDL and concerns the student's ability to manage learning tasks, time, and resources effectively. It includes organising the learning environment, selecting strategies, and applying skills to accomplish learning goals. Self-monitoring, on the other hand, represents the metacognitive dimension and refers to students' capacity for reflection, critical thinking, and awareness of their cognitive processes. It involves evaluating the quality and relevance of learning, recognising gaps in understanding, and adapting strategies when necessary. The third dimension, motivation, encompasses both intrinsic and extrinsic drivers that initiate and sustain the student's engagement in self-directed learning. Motivation influences the level of persistence and emotional regulation required to pursue learning goals, particularly when challenges arise.

Studies progressively continue to affirm the applicability and relevance of Garrison's model in current higher education and digital learning environments. Self-directed learning is increasingly understood as a cyclical and developmental process in which learners move iteratively through phases of planning, action, and reflection, with each cycle contributing to the progressive strengthening of self-regulation skills (Zimmerman, 2002; Panadero, 2017).

This cyclical view aligns closely with metacognitive models of self-regulated learning (SRL) and acknowledges that students' capacity for self-direction evolves through practice and feedback. Panadero (2023) supports this position, asserting that self-monitoring and reflection

play a central role in enabling students to evaluate the effectiveness of their strategies, regulate their emotions, and maintain a sense of agency in complex learning contexts.

The multidimensionality of SDL implies that students require a balanced combination of cognitive, affective, and behavioural competencies to engage effectively in SDL. Cognitive competencies include critical thinking, problem-solving, and the ability to integrate new knowledge into existing mental frameworks. Affective competencies encompass motivation, self-efficacy, resilience, and the ability to overcome frustration or uncertainty. Behavioural competencies relate to time management, the use of learning strategies, resourcefulness, and help-seeking behaviour. Together, these competencies allow students to sustain meaningful engagement with studies over time.

Understanding SDL as a multidimensional construct also broadens educators' and institutions' roles. Rather than assuming SDL is an innate trait, research now positions SDL as a capability that can be taught, scaffolded, and developed through intentional pedagogical practices (Kim et al., 2023). Kurucay and Inan (2017) emphasise that scaffolding, feedback, collaborative learning activities, and reflective tasks support the development of self-monitoring and metacognitive awareness. Such approaches counter the misconception that SDL equates to learning independently without guidance. Instead, SDL flourishes when students are provided with structured opportunities to practise autonomy in a supportive environment.

In digitally mediated learning settings, particularly in ODeL systems, the multidimensional nature of SDL becomes even more pronounced. Students must navigate digital platforms, locate and assess online resources, and regulate their motivation in the absence of physical classroom structures. Digital SDL requires an expanded skill set that includes digital literacy, information evaluation, and online communication skills, emphasising that SDL is inextricably linked with digital competence in modern higher education (Alanoglu, Karabatak & Yang, 2025). As such, SDL development in ODeL contexts requires sound instructional design, technology-enabled scaffolding, and institutional policies that stress the ongoing provision of support.

The reviewed literature demonstrates that SDL is best conceptualised as a dynamic, developmental and multidimensional construct rather than a static personal attribute. It involves complex interactions between cognitive strategies, metacognitive awareness, personal motivation, and behavioural self-regulation, all of which are influenced by the learning environment. This conception enables a more comprehensive understanding of SDL in higher education and forms a critical foundation for examining SDL practices within ODeL

environments, where students must navigate independent learning demands within technology-mediated systems.

2.6.4 Self-Directed Learning in the ODeL Context

The emergence and expansion of Open, Distance and e-Learning (ODeL) have intensified the centrality of self-directed learning, positioning SDL not merely as an advantageous student attribute but as a critical prerequisite for student success. ODeL environments are characterised by limited face-to-face interaction, flexible pacing, asynchronous instructional delivery, and the use of digital technologies to mediate learning. These conditions require students to assume a high degree of autonomy and self-regulation in their learning journeys (Shearer et al., 2020). As such, SDL becomes indispensable for effective engagement and persistence in ODeL.

ODeL students are required to independently interpret instructions, navigate online platforms, access learning resources, and manage their learning schedules, often with reduced lecturer scaffolding. Van Zyl (2023) observes that in ODeL settings, “the burden of engagement shifts significantly to the student, who must proactively construct learning pathways and monitor progress in the absence of continuous lecturer presence” (p. 112). This shift implies that SDL capabilities are fundamental to successful participation in ODeL, especially as students must reconcile academic demands with personal, professional, and family responsibilities. Consequently, SDL is not optional in ODeL: it is structurally embedded in the modality.

However, while ODeL demands a high level of self-direction, numerous studies show that many students enter ODeL without sufficient readiness for SDL. This is especially the case in resource-constrained settings where prior schooling is predominantly teacher-centred and reliant on direct instruction. These conditions prevail in African countries, where teachers traditionally favour rote learning and an authoritative pedagogical style (Maphalala & Nkosi, 2025). Mpungose (2020) notes that the rapid, often unplanned shift to online and distance learning, accelerated by the COVID-19 pandemic, exposed deep-rooted gaps in students’ information-seeking strategies and metacognitive awareness. The assumption that students would naturally transition into self-directed modes of learning proved flawed, highlighting the need for more deliberate SDL development in ODeL systems. African research highlights contextual realities that shape self-directed learning (SDL) in ODeL contexts. Persistent digital inequality, limited access to devices and affordable data, unstable electricity supply, and inadequate exposure to technology-enhanced learning continue to hinder students’ capacity to engage autonomously with learning demands (Czerniewicz et al., 2020; Prinsloo, 2020). These structural and socio-economic constraints intersect with linguistic barriers, as many

students engage with ODeL platforms in English, which is often not their home language (Bhatt, Badwan & Madiba, 2024). For such students, SDL development must be accompanied by institutional support structures that address technological, linguistic, and affective challenges, ensuring that autonomy does not translate into alienation or academic exclusion. The implication is that support for SDL in ODeL should not be seen as merely a pedagogical expectation but as a matter of social justice.

South African studies provide a perspective on self-directed learning (SDL) in ODeL contexts. While the expansion of ODeL has significantly widened access to higher education and participation for diverse student populations, research indicates that access alone is insufficient to guarantee meaningful learning engagement or success (Scott, 2018). Evidence further shows that many students continue to struggle to sustain motivation and self-regulation due to social isolation, uneven academic and psychosocial support, and persistent digital and socio-economic constraints. These conditions limit students' capacity to engage autonomously with learning demands and negatively affect persistence, progression, and completion in distance education (Prinsloo, 2020).

Similarly, research on first-generation university students in South African ODeL contexts indicates that many enter higher education with limited academic literacies and insufficient confidence to engage autonomously with learning tasks. Studies show that these students often struggle with independent learning expectations and therefore require guided scaffolding, structured orientation programmes, and sustained academic support to progressively develop self-directed learning (SDL) competencies (Scott, 2018; Prinsloo, 2020). The findings confirm that without systemic support, ODeL can reproduce the inequalities it seeks to redress. As such, SDL development in ODeL must be culturally responsive, context-attuned, and aligned with the lived experiences of diverse students.

Emerging research has begun to explore innovative strategies for cultivating SDL in the ODeL context. A systematic literature review conducted by Maphalala and Nkosi (2025) identified key strategies for enhancing SDL in ODeL environments, including strengthening student autonomy, integrating digital literacy training, embedding SDL-supportive pedagogical approaches, and providing multidimensional student support. Their review revealed five central themes that influence SDL development in ODeL: advancing inclusive access and opportunities; enhancing student autonomy and confidence; leveraging digital tools for transformative learning; addressing structural and psychological challenges in ODeL; and developing effective institutional support mechanisms. The authors contend that although

ODeL offers potential for widening participation, equitable SDL development requires attention to pedagogical, technological, and psychosocial aspects.

Similarly, Maphalala et al. (2025) examined the role of Artificial Intelligence-powered e-tutors in enhancing SDL in ODeL courses and found that AI tools can personalise learning experiences, provide real-time feedback, sustain motivation, and improve academic performance. Their findings show that AI can serve as a scaffold for self-direction, helping students set goals and monitor their progress. However, the authors caution that issues such as unequal access to technology, risks of over-reliance on AI, and concerns regarding data privacy must be addressed to avoid widening the digital divide. These emerging African studies contribute to the growing body of research that situates SDL development in ODeL within the realities of technological transformation and socio-economic inequality. Their research shows how pedagogical models are evolving.

At a global level, comparative research reveals that while ODeL students in the Global North also face self-directed learning (SDL) challenges, they often benefit from structural advantages that are less prevalent in the Global South. These include more advanced digital infrastructures, higher levels of academic literacy, and more robust institutional support systems. For example, studies in developed higher education contexts show that many institutions now embed structured SDL skill-building into orientation programmes and course design, including the use of self-regulated learning scaffolds, reflective tasks, and digital learning supports (Broadbent & Poon, 2015; Panadero, 2017). Such approaches enable students to progressively develop autonomy while maintaining guided support, thereby enhancing persistence and academic performance in online learning environments.

In the United Kingdom and Canada, universities increasingly embed reflective learning tasks, peer-learning communities, and digital self-regulation tools into courses to progressively strengthen SDL throughout a student's degree. These examples suggest that ODeL systems in Africa must adopt more systemic and integrated approaches to SDL development rather than assuming students will independently adapt to self-directed modes of learning.

Therefore, the literature positions SDL as both a core competence and a structural condition for success in ODeL. While ODeL inherently promotes flexibility, autonomy, and student agency, these affordances only translate into successful learning experiences when students are adequately supported to develop SDL capabilities. The following subsection examines the misconceptions and challenges that often hinder SDL development in ODeL environments.

2.6.5 Misconceptions and Challenges in SDL

Despite its prominence in higher education and distance learning discourse, self-directed learning (SDL) remains widely misunderstood by students, educators, and institutions. One of the most persistent misconceptions is the assumption that SDL is synonymous with learning in isolation or studying independently without guidance. However, research consistently shows that SDL does not imply the absence of support; rather, it involves structured and facilitated learning in which students progressively assume greater responsibility for their learning (Garrison, 1997; Grow, 1991). Studies further indicate that when autonomy is misinterpreted as disengagement from lecturers and peers, students may experience uncertainty and reduced motivation, particularly in online and distance-learning environments where guidance is less visible yet essential (Stone, 2017; Robinson & Persky, 2020).

This misunderstanding is particularly prevalent in ODeL systems, where reduced physical contact is often misinterpreted as the absence of support. Such misconceptions distort the essence of SDL, which is intended to be a structured and supported process enabling students to exercise agency, not a withdrawal of scaffolding or academic mentorship.

Another common misconception is that self-directed learning (SDL) is a natural trait rather than a learned capability. Research cautions that institutions often treat self-direction as an inherent student competency instead of a skill that must be explicitly developed and scaffolded through pedagogical design (Garrison, 1997; Grow, 1991). This assumption can result in learning environments where SDL is expected but not adequately supported, thereby disadvantaging students who have not yet developed the necessary self-regulatory, metacognitive, and motivational skills required for autonomous learning. This assumption is particularly problematic in ODeL contexts, where students may be expected to navigate complex learning management systems and regulate their learning with minimal guidance. When SDL is treated as a prerequisite rather than an outcome of curriculum design and pedagogical practice, students who lack prior exposure to autonomous learning may easily become marginalised or disengaged.

Closely linked to this assumption is the belief that autonomy requires minimal lecturer involvement. However, SDL does not negate the educator’s role; instead, it redefines it. Educators in SDL environments act as facilitators, mentors, curators of resources, and designers of learning experiences that progressively cultivate student agency. Their responsibility is not diminished but reframed. There is a new focus on timely, informative feedback and scaffolding, with students gradually moving to greater levels of independence. Without this supportive facilitation, SDL risks being misinterpreted as academic abandonment.

Motivational and psychological barriers further complicate SDL adoption in ODeL. While SDL literature frequently highlights autonomy as positive, less attention has historically been given to the emotional challenges that students face when assuming self-direction. Feelings of self-doubt and academic anxiety are common in ODeL owing to limited social presence and lack of immediate affirmation. Research indicates that students with low self-efficacy often struggle to sustain motivation for self-directed tasks, particularly in learning environments where feedback is delayed, ambiguous, or insufficiently dialogic (Schunk & DiBenedetto, 2020). Motivation is a critical condition for effective self-directed learning (SDL), yet it is especially fragile among first-time ODeL students who may lack a sense of belonging or confidence in their academic identity. Studies grounded in Self-Determination Theory show that when learning environments do not intentionally support motivation and relatedness, SDL can be experienced as burdensome rather than as a developmental opportunity (Ryan & Deci, 2020).

Additional misconceptions stem from mismatches in culture and pedagogy. Many African students were schooled in highly teacher-centred systems where knowledge transmission is prioritised over inquiry, collaboration, or independent learning. As Hofstede (2011) explains, cultural norms that emphasise hierarchy, respect for authority, and collective identity influence how students perceive teacher–student roles and learning expectations. In such contexts, SDL may initially conflict with deeply ingrained beliefs about the purpose of education and the role of educators. This cultural tension is often misinterpreted by institutions as resistance or a lack of readiness, rather than as a predictable transition barrier that requires culturally responsive scaffolding.

Technological misconceptions also exist. Students may assume that access to digital devices automatically translates to SDL competence. However, digital SDL requires more than basic technological proficiency; it involves critical information-seeking behaviour and the ability to communicate well in writing to manage the cognitive load. Digital SDL requires “new literacies of navigation, evaluation, and self-regulation in online learning environments,” skills that must be taught rather than presumed, as research demonstrates the central role of digital literacy and online learning readiness in fostering autonomous engagement and regulation in digital contexts (Alanoglu, Karabatak & Yang, 2025). Institutional misconceptions exacerbate these challenges. Some institutions implement ODeL models under the assumption that removing structured contact automatically fosters autonomy, inadvertently creating environments where students feel unsupported. Inadequate communication, poorly designed LMS platforms, and a lack of proactive academic support may contribute to a sense of being overwhelmed and eventually, despondency. As Tait (2014) argues, student support is the “heart of distance

education” (p. 11), and autonomy without support constitutes neglect rather than educational innovation.

These misconceptions highlight the need for a paradigm shift in how SDL is conceptualised and operationalised in ODeL. SDL is not an absence of structure, support, or collaboration; rather, it is a facilitated developmental process that requires intentional design to build autonomy progressively. To address these misunderstandings, ODeL institutions should implement explicit SDL skill-building initiatives, provide culturally sensitive scaffolding, and design learning environments that nurture confidence, competence, and community. The following subsection explores how SDL contributes to student success in ODeL and why strengthening SDL should be seen as both an educational strategy and a means of redress in South Africa, where the majority of young students come from previously disadvantaged homes.

2.6.6 The Importance of Self-directed Learning for Student Success

As has been established, the ability to engage in self-directed learning is a core determinant of student success across higher education systems, with its role amplified in technology-mediated and distance-learning environments. In traditional contact education, students often benefit from structured timetables, immediate interaction with the lecturer, and peer support that guide the learning process. In contrast, ODeL students engage with course content at their own pace, rely heavily on asynchronous communication, and must independently navigate academic expectations. Under these conditions, SDL becomes a central mechanism through which students manage their learning and achieve the desired learning outcomes. Studies indicate that students who develop stronger self-directed/self-regulated learning skills tend to achieve better learning outcomes, show more active engagement in online and blended learning, and often report more positive learning experiences when they can apply effective self-directed strategies (Guntur & Purnomo, 2024; Zhu, Berri, Koda & Wu, 2024)). One of the most compelling rationales for strengthening SDL is its direct correlation with improved academic performance. Huang et al. (2023) found that students with strong SDL competencies were more likely to complete assignments on time, engage meaningfully with learning materials, and persist in the face of academic challenges. These students exhibit resilience and adaptability traits essential for sustained participation in ODeL. In contexts where student dropout and low completion rates are prevalent, particularly in African ODeL institutions, fostering SDL is a key strategy to improve retention and success.

Beyond academic performance, SDL contributes significantly to the development of lifelong learning, a skill recognised as essential in rapidly changing global knowledge economies. Self-

directed students demonstrate the capacity to learn autonomously beyond formal coursework. They can update their knowledge in response to changing disciplinary trends and adapt their learning strategies to different contexts. These competencies align with the broader goal of higher education, which is to cultivate graduates who are self-motivated, reflective, and capable of engaging in continuous professional development.

Mentz, Laubscher, and Olivier (2021) emphasise that self-directed learning (SDL) is a core capability for lifelong learning in complex and changing societies. This is particularly relevant in many African contexts where education systems are expected to enable continuous learning and skills development beyond initial qualification, including mobility and retraining across employment sectors (Aitchison, 2004; UNESCO, 2025). In distance and learning environments where many students study while working and often to improve employability or transition careers, self-directed learning (SDL) strengthens learners' capacity to manage their learning, adapt to evolving workplace demands, and sustain learning across the lifespan (Garrison, 1997; OECD, 2019).

SDL also plays a crucial affective role by enhancing student confidence and academic identity. As students successfully set goals and monitor their own progress, they develop self-efficacy and a belief in their capacity to learn. This psychological empowerment is particularly significant in ODeL, where students frequently report feelings of isolation and doubt about their academic capabilities. According to Spencer and Jordan (1999), SDL transforms students into "active participants in the learning process", fostering deeper engagement and intrinsic motivation. When students experience success through self-initiated effort, they are more likely to persist and to develop a strong sense of belonging in higher education.

Notably, the importance of SDL extends beyond individual outcomes to institutional and societal benefits. For institutions, cultivating SDL reduces dependency on lecturer support and improves academic quality by promoting active, inquiry-driven learning. High levels of SDL among the student cohort align well with current pedagogical models that have shifted from teacher-centred to student-centred approaches. In many settings, knowledge is now understood as something co-constructed rather than passively received, and students who are adept at SDL are far more likely to exert agency in this endeavour than those who lack SDL skills. SDL also has benefits for society; it supports the development of graduates equipped with critical thinking, problem-solving, and self-management skills needed in complex social, economic, and technological environments. In the context of South Africa and Africa more broadly, SDL supports the transformation agenda by empowering historically

disadvantaged students to access and succeed in higher education through autonomous and resilient learning practices that counter structural disadvantage.

African research has reinforced the importance of SDL, specifically within ODeL. Maphalala and Nkosi (2025) highlight that ODeL has the potential to democratise higher education by offering flexible and inclusive access to diverse students, including working adults, rural populations, and groups excluded by traditional systems. However, this transformative potential is dependent on institutions' ability to foster SDL through supportive systems. Their study emphasises that while SDL enables students to take control of their educational journeys and set personalised learning goals, challenges such as a lack of motivation, time management difficulties, and feelings of isolation persist, particularly in less-structured learning environments. To mitigate these challenges, the authors recommend strengthening student-centred pedagogies, developing digital literacy skills, and equipping educators to intentionally support SDL.

Similarly, Maphalala et al. (2025) provide evidence that integrating Artificial Intelligence-powered e-tutors can enhance SDL by offering personalised feedback and support. These tools can help ODeL students self-regulate their learning and overcome conceptual difficulties in real time. The integration of AI into ODeL environments, therefore, holds promise for equity, as it can extend personalised academic support to students who might otherwise lack access owing to geographical, financial, or time constraints. However, there are risks inherent in embracing AI, as is increasingly apparent in higher education: over-reliance on it can erode student competence and exacerbate the digital divide. The misuse of AI also raises ethical concerns about data use. Thus, while AI has significant potential to strengthen SDL, it must be implemented thoughtfully, ensuring it complements rather than replaces pedagogical and human support.

International evidence corroborates the link between self-directed learning (SDL) and student success in distance education. As noted in Section 2.6.4, research shows that targeted SDL skill-building interventions embedded within course design can significantly improve student persistence, engagement, and academic performance in online learning environments (Broadbent & Poon, 2015; Kizilcec, Pérez-Sanagustín, & Maldonado, 2017). In contexts such as the United Kingdom and Canada, universities increasingly integrate structured orientation programmes, reflective learning tasks, peer learning communities, and digital self-regulation tools to support the development of SDL competencies. Collectively, these initiatives reinforce the global recognition that SDL is not merely an outcome of learning but a foundational

capability that must be intentionally cultivated through pedagogical design and institutional support.

The literature strongly supports the view that SDL is indispensable for student success in ODeL. Strengthening SDL in ODeL is therefore both a pedagogical priority and a transformative equity strategy that promotes access, success, and empowerment to those who have been educationally disadvantaged. Given the centrality of SDL, it is necessary to examine the levels at which students demonstrate readiness for self-direction, a focus of the following subsection.

2.6.7 Self-directed Learning Category Levels

The extent to which students demonstrate readiness for self-directed learning varies considerably. This variability has informed efforts to classify SDL into different levels. As noted in Section 2.6.1, Guglielmino's (1977) Self-Directed Learning Readiness Scale (SDLRS) distinguished students along a continuum from low to high SDL capability. Understanding these category levels is important for educators and institutions, as it provides insight into how prepared students are for self-directed modes of study and what forms of support are required to cultivate higher levels of self-direction.

Students classified as having low SDL readiness typically prefer highly structured and teacher-directed learning environments. Such students rely heavily on external guidance, require clear instructions, and often depend on lecturers for motivation, feedback, and decision-making. Maisyarah (2021), examining SDL during online learning in Indonesia, found that students with low SDL readiness struggled to identify their own learning needs and depended on teacher instructions to initiate and complete learning tasks. These students often exhibit limited confidence and low self-efficacy in independent learning tasks. In ODeL contexts, low SDL readiness can result in disengagement, procrastination, and attrition if adequate scaffolding and support systems are not provided.

Students with moderate SDL readiness are a transitional group who demonstrate some capacity for independent learning but are not yet consistently autonomous. They may succeed with self-directed tasks when given structure or guidance, but struggle to set goals, plan learning activities, or evaluate outcomes independently. Guglielmino (1991) notes that such students are capable of self-direction to a degree, but benefit from scaffolded learning approaches that gradually increase autonomy. They may require prompts, structured timelines, and regular check-ins to maintain momentum. In ODeL settings, moderate SDL

students often adapt over time with proper support, suggesting that institutional interventions can make a considerable difference in strengthening self-direction.

Students with high SDL readiness demonstrate substantial autonomy, intrinsic motivation, effective self-regulation, and the ability to plan, implement, and evaluate their learning. They are proactive in identifying learning needs, seeking resources, using feedback constructively, and adjusting strategies when necessary. Guglielmino (2007) states that these students display persistence, curiosity, self-discipline, and confidence in navigating learning environments. In ODeL, high SDL readiness is associated with strong academic performance. These students can manage flexible learning schedules, engage deeply with course content, and maintain motivation despite limited external supervision.

Research corroborates the applicability of these characteristics in higher education, particularly within digitally mediated and open, distance and e-learning (ODeL) contexts. Empirical research using refined self-directed learning readiness instruments has consistently shown that SDL readiness is developmental rather than fixed, with learners demonstrating growth through structured learning experiences, feedback, and guided reflection (Fisher & King, 2010; Cadorin et al., 2017). These studies indicate that students can progress from lower to higher levels of SDL readiness when pedagogical designs intentionally scaffold goal-setting, monitoring, and reflective evaluation. This reinforces the understanding of SDL not as an inherent personality trait but as a learnable and cultivable capability. In ODeL environments where students enter with diverse educational backgrounds and varying levels of preparedness, recognising differing levels of SDL readiness is essential for designing differentiated, responsive student-support strategies that promote learner autonomy and sustained engagement (Tait, 2018; Zimmerman, 2002).

Understanding SDL categories enables educators and institutions to design programmes that support students based on their readiness levels. For example, low students may require more structured orientation, academic literacies training, and high levels of support; moderate SDL students may benefit from scaffolded tasks with a gradual increase in responsibility; and high SDL students should be offered opportunities for enrichment, leadership, and self-initiated projects to maintain engagement. Categorisation also carries implications for assessment design: while all students should be encouraged to develop autonomy, tasks must remain fair and accessible to those still building self-directed learning capacities.

In ODeL environments, SDL categorisation helps institutions avoid a “one-size-fits-all” approach. Without assessing or recognising SDL readiness levels, institutions risk designing programmes that implicitly privilege high-SDL students and disadvantage those with lower

SDL readiness, thereby reproducing inequities. SDL categories, therefore, provide a valuable diagnostic lens for promoting inclusive and developmentally responsive ODeL systems that empower all students to grow towards greater self-direction.

2.7 FOSTERING SELF-DIRECTED LEARNING IN ODEL ENVIRONMENTS

Self-directed learning (SDL) does not emerge by accident in Open, Distance and e-Learning; it is the outcome of intentional pedagogical design, structured student support, and access to technologies that together cultivate autonomy and persistence over time. Evidence from South Africa and comparable systems shows that when ODeL programmes scaffold goal-setting, planning, strategy use, and self-evaluation, and when they reduce transactional distance through timely dialogue and clear structure, students' SDL capacities strengthen alongside performance and satisfaction (Maré & Mutezo, 2021; Shearer et al., 2020). Studies further confirm that SDL development requires a whole-of-institution approach. This means providing student-centred curricula, analytics-informed support, inclusive digital infrastructure, and trained educators who can orchestrate socio-technical learning environments that respect autonomy while providing "just-in-time" guidance (Maphalala & Nkosi, 2025; Adigun et al., 2025).

2.7.1 Strategies for Promoting SDL in ODeL Settings

Across the literature, three complementary strategies emerge for promoting SDL in ODeL environments. First, *orientation and induction* to SDL are essential, particularly for students transitioning from teacher-centred schooling. Structured onboarding that explicitly teaches time-management and online study strategies is associated with stronger self-management and lower early-semester attrition (Robinson & Persky, 2020; Maphalala et al., 2021). Second, scaffolding for self-regulation through sequenced tasks with visible progress indicators, weekly study plans, and reflective checkpoints helps students externalise and then internalise SDL routines in online course designs (Lluch Molins & Cano García, 2023). Third, *socially distributed supports* such as peer learning circles, e-tutoring, and communities of inquiry help sustain student motivation. These social arrangements address the "relatedness" component of motivation while preserving student control (Shearer, Aldemir, Hitchcock, Resig, Driver & Kohler, 2020; Maré & Mutezo, 2021).

In South African ODeL contexts, strengthening self-directed learning (SDL) also requires deliberate attention to structural constraints. Research highlights the importance of mobile-first, low-bandwidth learning materials, predictable pacing, multilingual academic-literacy support, and proactive communication to mitigate challenges related to unreliable connectivity

and constrained study environments (Czerniewicz et al., 2020). A study by Maphalala and Nkosi (2025) synthesises these findings into five main action domains: broadening inclusive access, cultivating autonomy, leveraging digital tools for transformation, tackling persistent barriers, and building multi-layered support. They argue that SDL must be taught, not merely expected, in massified ODeL systems.

2.7.2 The Role of Instructional Design and Curriculum Development in Supporting SDL

Instructional design is the principal lever for developing SDL at scale. Designs that articulate clear learning outcomes, align activities and assessment to those outcomes, and provide choice pathways for pacing or modality are associated with gains in autonomous engagement (Garrison, 1997). From a transactional-distance perspective, course structures that make expectations transparent, evenly chunk the workload, and embed routine opportunities for dialogue reduce ambiguity and help students plan and monitor their learning with greater confidence (Shearer et al., 2020).

Integrating Universal Design for Learning (UDL) principles may also be valuable in ODeL settings. UDL emphasises multiple means of engagement, representation, and action/expression, which supports inclusive education by offering learners choices in how they interact with content and demonstrate their knowledge. Applying these principles can enhance student agency and flexibility in accessing materials and showing competence, while upholding academic standards (CAST, 2023; Al-Azawei, Serenelli & Lundqvist, 2016).

Curriculum-level actions matter as well. Programmes that sequence progressive autonomy, moving from tightly scaffolded tasks to open-ended projects, encourage the internalisation of planning and evaluative judgement. Capstone projects, developmental assessments, and the incorporation of micro-credentials can consolidate SDL by requiring students to set goals, marshal resources, and demonstrate their learning (Robinson & Persky, 2020). South African ODeL research emphasises the curricular value of integrative e-tutoring models in which tutors facilitate metacognitive talk, modelling how to interpret rubrics, plan drafts, and act on feedback (Maré & Mutezo, 2021). In addition, Adigun et al. (2025) propose a constructivist progression of tasks and support, moving from “cannot do” to “doing with positive supports” to “independent knowledge construction,” as a practical developmental arc in blended/ODeL programmes.

2.7.3 Tools and Technologies that Enable SDL in ODeL (LMS, E-tutors, Adaptive Tools)

Technology is most effective for SDL when it makes self-regulation visible and actionable. Learning management systems (LMS) are essential for the effective adoption of SDL. They usually include pacing guides, to-do lists, and mastery dashboards, which help promote planning and reflection. They may also include nudges and tips, progress alerts, and calendar integrations, all of which help students organise their tasks and prevent procrastination (Koko & Althin, 2021). Learning analytics can power early alerts to lecturers and tutors, which can trigger human outreach. They help preserve autonomy while providing timely scaffolding for students who drift off track (Shearer et al., 2020).

E-tutoring is a cornerstone of South African ODeL. A study has shown positive effects on persistence and performance when e-tutors explicitly teach study strategies, especially when these involve peer collaboration (Maré & Mutezo, 2021). *AI-powered e-tutors* extend this support by providing clear explanations and immediate formative feedback. A 2025 synthesis finds improvements in engagement and achievement when AI assistants are embedded in educational programmes; however, it cautions against inequitable access and the potential for educational programme designers to over-rely on machines (Maphalala et al., 2025). In blended/ODeL contexts, *mobile apps*, *offline-capable readers*, and *low-bandwidth multimedia* are particularly salient for widening participation and sustaining study routines under infrastructure constraints (Mpungose, 2020).

Adaptive learning platforms can foster self-directed learning (SDL) by diagnosing misconceptions, tailoring content, and providing metacognitive prompts that encourage learners to predict performance, justify strategy choices, and plan revisions. When combined with learning contracts and reflective journals within learning management systems, these tools support iterative cycles of goal setting, self-monitoring, and self-evaluation that closely align with established SDL models (Garrison, 1997; Bannert et al., 2021).

2.7.4 The importance of Feedback, Self-assessment and Reflective Practices in Fostering SDL

Feedback is the key that turns activity into learning for SDL. In ODeL, high-frequency formative feedback, rubric-referenced comments, exemplar-based annotations, and automated checks help students gauge their own progress and take corrective action when necessary (Shearer et al., 2020). Regularly providing feedback has the advantage of giving students opportunities to reflect and self-assess well before summative assessments are held. Self-assessment and peer assessment cultivate the dispositions and skills of autonomous students by requiring

students to diagnose gaps and plan improvements. Studies conducted during the pandemic and afterwards show that these practices raise accountability and deepen conceptual understanding in online settings (Bhandari et al., 2020; Li et al., 2020; Maphalala et al., 2021).

Self-reflection is valuable to students, and technologies that promote this skill can help improve student retention. Self-reflection can be done through journal keeping and portfolio compilation. These help consolidate metacognitive monitoring, especially when prompts ask students to link strategies to outcomes and to set specific, time-bound goals for the next cycle of learning. AI-enabled feedback can accelerate this loop by providing immediate, criterion-aligned suggestions; yet the literature warns that human facilitation remains necessary to sustain motivation and ensure feedback quality (Maphalala et al., 2025; Robinson & Persky, 2020). When feedback ecosystems combine immediacy with human sense-making and peer dialogue, SDL flourishes even in large, geographically dispersed cohorts.

2.8 THE ROLE OF INSTITUTIONAL SUPPORT IN ENHANCING SDL

A consistent finding across the adult-learning and ODeL literature is that self-directed learning rarely “just happens”. It flourishes when institutional ecosystems are designed to cultivate autonomy, competence and relatedness, and it falters when universities assume SDL is an innate, pre-existing student trait (Garrison, 1997; Simpson, 2018). In distance and online modalities where structure and dialogue are mediated by technology, the institution becomes the proximate “teacher” through its policies, student-support architecture, academic development systems, data practices and culture (Tait, 2000; 2014). In South Africa, this imperative is sharpened by persistent digital and socio-economic inequalities: widening access through ODeL without deepening epistemic access risks reproducing attrition at scale (Oosthuysen et al., 2024). A study further shows that autonomy-supportive climates at the course and institutional levels promote more successful SDL strategies amongst students, but only when paired with scaffolding and timely feedback (Boghian & Stirbu, 2024;). In addition, the cited sources also stress that institutions should promote opportunities for student collaboration, as social reinforcement is critical in SDL. In short, SDL is as much an institutional design problem as it is a student characteristic.

2.8.1 Institutional Policies and Practices that Support SDL

Policies give direction to practice. Internationally, distance-education quality frameworks emphasise an integrated approach to student support and learning design (Tait, 2014; Simpson, 2018). In South Africa, sectoral steering documents (e.g., DHET distance-education policy and university ODeL strategies) call for fit-for-purpose models that blend academic,

psychosocial, administrative and technological supports across the student journey, with explicit commitments to equity and social justice (Makoe, 2022; UNISA, 2016–2030 Strategy Summary). Where policies are operationalised into coherent practices such as orientation to SDL, multilingual helpdesks, 24/7 LMS support, inclusive assessment policies, and robust academic advising, SDL indicators improve (Mare & Mutezo, 2021; Simpson, 2018). Empirical studies in ODeL systems repeatedly associate structured induction to online learning, explicit teaching of self-regulatory strategies, and proactive communication calendars with higher persistence and self-management, particularly for students transitioning from teacher-centred schooling (Shearer et al., 2020; Mpungose, 2020).

Effective policy also concerns assessment and analytics. Institutions that normalise formative assessment, supported by dashboards that prompt metacognitive monitoring, report stronger self-monitoring behaviours and earlier help-seeking among students (Koko & Althin, 2021; Robinson & Persky, 2020). Conversely, research shows that misalignment between institutional expectations and actual course design, such as promoting self-directed learning while offering asynchronous courses with limited interaction or delayed feedback, can undermine student engagement and reduce persistence, as students experience decreased motivation and a sense of disconnection from the learning process (Broadbent, 2017; Martin, Sunley, & Turner, 2020).

Within ODeL, the teaching team extends beyond the lecturer and includes instructional designers, e-tutors, advisors, librarians, disability and language-support staff, and call-centre/ICT teams. Their coordinated actions operationalise SDL. Lecturers and designers shape students' ability to practise autonomy and self-regulation by articulating weekly goals, modelling planning strategies, providing workload maps, building choice into tasks, and making reflection explicit (Garrison, 1997; Mare & Mutezo, 2021). E-tutors and advisors can do a great deal to sustain motivation and promote social interaction, both of which are key to successful SDL (Maré & Mutezo, 2021).

In higher-education samples, students exposed to teaching practices that support autonomy report higher SDL and engagement, an effect moderated by perceived competence and timely feedback (Boghian & Stirbu, 2024). In medical and other professional programmes, research shows that facilitated self-directed learning, supported by regular check-ins, coaching, and guidance from knowledgeable educators, produces more positive learning outcomes than programme designs that rely exclusively on self-paced, independent study (Gruppen et al., 2018). This shows that guidance does not oppose autonomy. University staff support self-directed learning by providing structure, encouraging dialogue, and showing care..

2.8.2 Professional Development and Training for Educators in SDL Facilitation

Because SDL is cultivated through design and discourse, educator professional development (PD) is pivotal. PD with the strongest effects combines (i) learning-design capability (constructive alignment for SDL; designing for self-management, self-monitoring and motivation), (ii) feedback for learning (feedback and formative analytics), and (iii) inclusive ODeL praxis (multilingual, mobile-first materials; UDL-informed activities) (Simpson, 2018; Tait, 2014). Workshops alone are insufficient; sustained communities of practice are needed, along with peer-review of course designs and coaching. Studies conducted in South Africa during and after the COVID-19 pandemic show that when academics receive scaffolded support to redesign for online learning, students report greater self-direction and accountability (Maphalala et al., 2021; Mpungose, 2020). Emerging evidence also points to the value of PD on AI-enhanced facilitation: educators trained to use AI-powered e-tutors for formative feedback and scaffolding can boost SDL while maintaining academic integrity and equity (Maphalala et al., 2025).

2.8.3 Challenges Faced by Institutions in Implementing SDL Initiatives in ODeL

Common barriers may be grouped into four clusters: structural, design, capability, and culture and governance. Structural barriers include bandwidth and device inequities, intermittent power, data costs, synchronous teaching sessions, pressures from the media to provide zero-rated content, and expensive loans to pay for devices (Oosthuysen et al., 2024; Mpungose, 2020). Design barriers include courses that maximise flexibility but minimise dialogue, which inadvertently increases transactional distance. Without planned interaction and regular feedback, autonomy can feel like isolation (Moore & Kearsley, 2012). Capability barriers include inconsistent staff capacity in online pedagogy, feedback literacy and analytics-for-learning, all of which hamper SDL scaffolding (Simpson, 2018; Tait, 2014). Culture and governance barriers include misalignment between mission statements and operational practices; institutions may stress equity while offering narrow assessment windows, opaque rules, and slow service responses, which erode trust and persistence (Makoe, 2022).

The rapid arrival of AI introduces both opportunities (personalised micro-feedback, 24/7 tutoring) and risks (privacy, over-reliance, bias), requiring policy, staff development and student AI-literacy to ensure AI augments rather than replaces the human feedback so essential to SDL (Maphalala et al., 2025).

The literature therefore suggests a pragmatic design principle: treat SDL as a curriculum-and-services outcome rather than an input. Institutions that embed autonomy-supportive design,

dialogic feedback, reliable support services, inclusive technologies and educator professional development underwritten by clear policy and equity commitments report stronger self-management among ODeL students, especially those least advantaged at entry (Garrison, 1997; Mare & Mutezo, 2021; Simpson, 2018; Tait, 2014; Boghian & Stirbu, 2024).

2.9 SELF-DIRECTED LEARNING IN ODEL: GLOBAL PERSPECTIVES

As observed in previous sections, the rapid international expansion of ODeL has shifted the discourse on self-directed learning from being viewed primarily as an individual, student-driven aptitude to a systemic, institutionally mediated responsibility (Garrison, 1997; Tait, 2018; Fiock, 2020). As ODeL has grown, institutions worldwide have adopted a range of models, technologies, and pedagogical innovations to cultivate SDL competencies among students who are geographically dispersed and academically diverse (Hodges et al., 2020; Shea & Bidjerano, 2010). Across regions including North America, Europe, Asia, and Africa, the integration of SDL within ODeL has been influenced by varied socio-cultural norms, technological capabilities, economic conditions, and policy frameworks, illustrating that while fundamental principles of SDL remain universal, the strategies for fostering it are shaped by contextual realities (Jung & Latchem, 2020; Tait, 2018). Researchers increasingly argue that SDL in ODeL systems must be designed rather than assumed, and that successful implementation depends not only on student readiness but also on institutional ecosystems that facilitate autonomy, self-regulation, motivation, and meaningful engagement (Garrison, 1997; Tait, 2014; Simpson, 2018).

2.9.1 Examples of SDL Implementation in ODeL Contexts Worldwide

Some of the most extensive SDL initiatives in ODeL have emerged from long-established distance education systems. The Open University (OU) in the United Kingdom has embedded SDL as a core outcome of curriculum design for decades. Through the use of study guides, formative e-assessments, regular tutor feedback, and student analytics, OU operationalises Garrison's (1997) dimensions of self-management, self-monitoring, and motivation at scale. The university's model illustrates that SDL improves when instructional design provides scaffolding that gradually releases responsibility to students while maintaining academic and socio-emotional support (Tait, 2014). OU's use of personalised learning analytics dashboards and tutor feedback has shown positive effects on students' metacognition and help-seeking behaviours, both of which are critical to SDL (Koko & Althin, 2021).

In North America, institutions such as Athabasca University in Canada illustrate a technology-enabled approach to supporting self-directed learning (SDL) in online education. The use of

learning management systems, learning analytics, and flexible pacing structures enables students to progress at their own pace while maintaining access to academic and learner support services, which are central to effective distance education models (Anderson & Dron, 2011; Siemens & Long, 2011).

The university's research on learning analytics confirms that when students interact with visualisations of their progress, they develop stronger self-monitoring abilities (Koko & Althin, 2021). Similarly, the United States' Western Governors University employs a competency-based ODeL model grounded in SDL principles. Students' progress at their own pace, supported by mentors who coach them towards self-regulation and long-term goal-setting rather than content transmission (LeBlanc, 2018).

In Asia, ODeL systems have leveraged cultural collectivism to foster SDL through peer learning and collaborative knowledge construction. The National Open University of Japan integrates peer-interaction tasks, reflective journaling, and problem-based learning to cultivate student autonomy and motivation (Murata, 2022). China's South-West Normal University implemented a blended ODeL framework that links self-directed learning (SDL) with collaborative online learning communities, in which digital platforms enable peer accountability, goal alignment, and the co-construction of knowledge (Adigun, Mpofu & Maphalala, 2025).

In India, the Indira Gandhi National Open University (IGNOU) emphasises SDL through self-instructional materials, radio/television lessons, and mobile-enabled learning (Mishra, 2020). These examples from Asia show that SDL can be strengthened through multimodal content and context-sensitive student support rather than complete reliance on digital platforms. Similarly, across parts of the Global South, Latin American approaches to open and distance e-learning demonstrate socioculturally responsive adaptations of SDL, supporting learner autonomy through dialogue, peer interaction, and structured academic support. A study on ODeL emphasises that such relational and support-oriented models are particularly effective in diverse and unequal contexts, as they enable reflective inquiry and reciprocal learning while mitigating isolation often associated with distance education (Tait, 2018; Zawacki-Richter & Jung, 2023).

These cases demonstrate that SDL can manifest differently across global ODeL landscapes, with some systems emphasising technological scaffolding and autonomous navigation, and others emphasising collaborative, socially mediated autonomy.

2.9.2 Comparison of Global Practices with the South African ODeL Environment

Although South Africa reflects global ODeL features such as flexibility, massification, and a focus on lifelong learning, it operates under structural constraints that intensify SDL challenges. South African ODeL students face intersecting barriers, including digital inequality, first-generation university status, limited academic literacy, and linguistic diversity (Mpungose , 2020; Oosthuysen et al., 2024). In contrast to countries with universal broadband access and well-funded support services, South African ODeL institutions must cultivate SDL in contexts where a significant proportion of students lack stable internet connectivity, digital devices, or conducive learning environments.

Globally, many ODeL systems operationalise SDL through mentorship models, including Athabasca University, which uses academic success coaches, and Western Governors University, which employs student mentors (LeBlanc, 2018). In South Africa, such personalised support must contend with high student–staff ratios, which can limit proactive engagement and the relational scaffolding needed to nurture SDL. While peer-learning communities are integral to Asian and Latin American ODeL SDL models, South African ODeL students often report feelings of isolation and struggle to form sustained learning networks owing to asynchronous learning and uneven digital participation (Maphalala et al., 2021).

However, South Africa's ODeL sector also demonstrates innovative responses aligned with global best practice. Universities that have adopted multilingual support, mobile-first learning design, WhatsApp academic communities, e-tutoring programmes, and scaffolded digital literacy interventions that support SDL competencies (Mare & Mutezo, 2021; Makoe, 2022). While global systems often rely on advanced analytics and educational technologies, South African ODeL innovations foreground equity, contextual relevance, and blended human–technology support.

2.9.3 Lessons Learned from International Experiences in Fostering SDL

Key lessons from international ODeL practice confirm that SDL does not emerge from student independence alone but is cultivated when institutions balance autonomy with structured, relational, and technological scaffolding. Across systems, self-directed learning (SDL) is strengthened when universities embed explicit instruction in metacognition, time management, self-monitoring, and reflective practice into course design (Garrison, 1997; Hemmler et al., 2024; Xu, Luo, Wang, C., Wang & Wu, 2026). International experiences underline three strategic insights. First, SDL is optimised when student agency grows in tandem with guided support rather than through "sink or swim" autonomy. Second, socially

mediated SDL, achieved through peer learning, collaborative inquiry, and learning communities, enhances motivation and persistence, particularly for first-generation and non-traditional students. Third, technology-enhanced scaffolding can expand personalisation and support self-regulation when implemented ethically and equitably (Maphalala et al., 2025).

For South Africa, the dominant lesson is that SDL must be cultivated within an equity-driven framework that recognises historical and present-day disparities. Rather than importing global models wholesale, South African ODeL success depends on contextualising international best practice to local realities. Scaffolding for SDL should account for socio-economic inequality, linguistic diversity, and varying levels of academic preparedness. Global evidence consistently affirms that the most successful ODeL systems do not treat SDL as a fixed student attribute but rather as a developmental process that requires relational support and inclusive institutional design. These insights provide direction for South Africa's continued transformation of ODeL as a vehicle for widening access and nurturing lifelong, self-directed students in a rapidly evolving digital world.

2.10 CHALLENGES AND BARRIERS TO SELF-DIRECTED LEARNING IN ODeL

While SDL is widely celebrated as a hallmark of effective ODeL, its successful implementation is not automatic or even universally achievable. The promise of SDL rests on the assumption that students possess, or can readily acquire, the metacognitive, affective, digital, and organisational capabilities required to manage their own learning. However, the realities of diverse student populations, especially in developing contexts such as South Africa, reveal a complex landscape in which student-, technological-, institutional-, and socio-cultural factors intersect to either enable or hinder SDL. Researchers emphasise that SDL development must be understood ecologically, recognising the interplay between the student, the learning environment, and the broader socio-economic context (Garrison, 1997; Moore & Kearsley, 2012). In ODeL, where transactional distance is heightened, barriers to SDL can be amplified if not intentionally addressed (Tait, 2014; Simpson, 2018). This section critically explores the multilayered challenges that constrain SDL in ODeL contexts, with particular attention to the South African environment.

2.10.1 Student-Related Challenges

At the individual level, SDL is often constrained by variations in motivation, self-regulation, learning readiness, and digital confidence. Self-directed learning requires intrinsic self-regulation and persistence, conditions not always present among students transitioning from teacher-directed schooling systems (Knowles, 1984; Garrison, 1997). Many students entering

ODeL environments struggle with limited self-regulatory capacity, difficulties in time management, inconsistent study routines, and a lack of goal-setting and self-monitoring strategies (Robinson & Persky, 2020). Research conducted during the COVID-19 transition to online learning in South African universities demonstrated that students felt unprepared to manage their learning independently and experienced anxiety and cognitive overload when required to assume responsibility for their studies without prior scaffolding (Maphalala et al., 2021).

A persistent challenge is digital literacy. SDL in ODeL requires the ability to navigate learning management systems (LMS), locate digital resources, engage in online discussions, and use productivity and communication tools effectively. However, digital proficiency remains uneven among ODeL students, with first-generation and mature students often facing steeper learning curves due to differences in prior exposure, confidence, and institutional support for developing digital competence (Hatlevik et al., 2018). Without foundational digital literacy, students struggle to self-direct their engagement, leading to delayed task submission and limited interaction with peers or tutors. Motivation also fluctuates in ODeL environments, particularly when students experience isolation and limited feedback. Studies in higher education have consistently linked feelings of disconnection to declines in intrinsic motivation and engagement (Shearer et al., 2020).

2.10.2 Technological Barriers

Technology forms the backbone of ODeL, but unequal access and usability challenges can obstruct students' ability to self-direct. In many developing countries, the digital divide persists as a major impediment. South African students continue to face unstable internet connectivity, high data costs, unreliable electricity supply, and limited access to laptops or smartphones capable of supporting online learning (Oosthuysen et al., 2024). These structural constraints hinder consistent engagement with online learning. Inequitable access to technology can thus deepen epistemic exclusion and reinforce existing socio-economic disparities (Makoe, 2022).

Even where access exists, platform usability issues can impede self-directed learning (SDL). Research shows that poorly designed learning management systems (LMS), fragmented digital platforms, and limited mobile optimisation introduce unnecessary cognitive and navigational barriers, making it more difficult for students to engage effectively and manage their learning processes (Almaiah, Al-Khasawneh, & Althunibat, 2020). Digital tools intended to support autonomy, such as analytics dashboards designed to track progress, can overwhelm students if they are not accompanied by guidance or explained in user-friendly terms (Koko & Althin, 2021). Moreover, technology-enabled learning is only effective when

students have both the technical skills to use tools and the metacognitive awareness to interpret feedback and adjust behaviour accordingly.

2.10.3 Institutional Barriers

Institutions that assume students will self-direct and fail to provide scaffolding inadvertently perpetuate student failure (Simpson, 2018). Effective SDL requires aligned policy, curriculum design, academic support, and feedback mechanisms. However, research reveals that some ODeL institutions lack coherent support frameworks that explicitly build SDL competencies (Tait, 2014). Gaps often arise in induction programmes, academic advising, feedback cycles, e-tutor support, and ongoing monitoring of student progress. These failures to provide the necessary infrastructure diminish students' ability to self-monitor and self-correct, weakening SDL (Shearer et al., 2020).

In addition, not all academic staff are adequately prepared to facilitate SDL in ODeL. Some lecturers, trained in traditional face-to-face pedagogies, may struggle to design learning experiences that cultivate autonomy, provide flexibility, and integrate formative self-assessment (Makoe, 2022). Without professional development in online pedagogy and SDL-oriented design, lecturers may revert to transmissive teaching strategies, thereby contradicting the SDL ethos of ODeL. Institutional policies may further limit SDL when they emphasise content coverage, rigid assessment structures, or administrative procedures that restrict student agency. Policy–practice misalignment, in which institutional documents advocate SDL but operational systems remain inflexible, creates contradictions that students experience first-hand.

2.10.4 Socio-Economic and Cultural Factors Impacting SDL in South Africa

The South African ODeL landscape is uniquely shaped by the legacy of apartheid, persistent poverty, linguistic diversity, and cultural expectations surrounding education. These socio-historical dynamics present complexities for SDL adoption. Many ODeL students come from under-resourced schooling contexts where rote learning was dominant (Spaull & Jansen, 2019). Transitioning to an SDL-driven ODeL model that demands independent inquiry and critical engagement can be overwhelming for many students. Research suggests that cultural norms that emphasise deference to teacher authority and traditional instructional roles can inhibit learners' willingness to question content, express uncertainty, or take initiative, thereby constraining the development of autonomous learning behaviours in digital and blended environments (Tran, 2025).

Socio-economic realities further constrain SDL. Students balancing employment, caregiving responsibilities, and financial hardship often have limited time and physical space to engage in sustained, self-regulated study (Oosthuysen et al., 2024). Food insecurity, unemployment, and unstable living conditions exacerbate cognitive load and undermine motivation and concentration. These non-academic burdens disproportionately affect students in ODeL systems, where study is often undertaken part-time and in isolation. Language also plays a mediating role: when English dominates academic content, multilingual students may face additional challenges in understanding it (Makoe, 2022).

In sum, while SDL remains a central aspiration of ODeL globally, its realisation in South Africa requires an understanding of systemic inequality and socio-cultural realities. Acknowledging these barriers is critical, as it shifts the focus from blaming students for lacking autonomy to examining how ODeL systems can scaffold independence and create culturally responsive, socially just learning pathways.

2.11 THE ROLE OF THE LEARNER IN SELF-DIRECTED LEARNING

Self-directed learning (SDL) positions the learner as the central agent in the learning process. SDL is therefore not solely an instructional approach, but a personal capacity that evolves as students develop metacognitive awareness, motivation, and self-regulatory abilities over time (Garrison, 1997). Within ODeL environments, the learner's role becomes particularly critical. The learner must initiate learning, sustain motivation, engage with available resources, and monitor learning progress in order to succeed (Knowles, 1975; Song & Hill, 2007). This section explores the defining characteristics of successful self-directed students, the psychological constructs that sustain SDL, and the strategies students can use to cultivate SDL competencies in ODeL contexts.

2.11.1 Characteristics of Successful Self-Directed Students

Successful self-directed students are distinguished by a constellation of cognitive, behavioural, and affective attributes that support autonomous engagement with learning materials. The literature identifies independence, organisation, curiosity, self-discipline, metacognitive awareness, and a proactive attitude toward learning as core traits associated with SDL (Knowles, 1975; Guglielmino, 1977; Brookfield, 2009). More research expands this profile to include digital resilience, online communication competence, and the ability to navigate learning technologies skills that have become integral in digital and ODeL contexts (Kim et al., 2023; Huang et al., 2023). According to Garrison (1997), successful SDL involves the learner's ability to manage learning tasks, monitor understanding, and sustain motivation

despite challenges or limited external support. Song and Hill (2007) further argue that SDL effectiveness is enhanced when students possess personal agency, confidence in their learning capacity, and an internalised belief in their responsibility for academic success. In ODeL settings, where isolation and reduced accountability structures can hinder persistence, such learner-driven attributes become even more critical.

2.11.2 The Importance of Motivation, Self-Regulation, and Self-Efficacy in SDL

Key psychological mechanisms underpin the learner's ability to self-direct learning. Among these, motivation, self-regulation, and self-efficacy are consistently identified as decisive factors that shape SDL engagement and outcomes (Zimmerman, 2002; Deci & Ryan, 2000). Motivation fuels the learner's willingness to set goals, persevere, engage deeply, and complete learning tasks. In the absence of extrinsic motivational structures typical of face-to-face environments, intrinsic motivation becomes vital for sustaining learning over time (Shearer et al., 2020). Self-regulation is central to SDL because it encompasses planning, goal-setting, time management, strategic learning, and reflective evaluation skills that enable students to take control of their learning (Zimmerman, 2002). Students who lack self-regulation often experience procrastination and disengagement in ODeL settings.

Self-efficacy, the belief in one's ability to perform learning tasks successfully, also plays a pivotal role. Bandura (1997) observes that self-efficacy influences students' choice of effort investment and resilience when they face academic difficulties. In ODeL environments, where self-management challenges are amplified, students with high self-efficacy are more likely to persist, seek solutions, and engage productively with learning materials and digital tools than those with lower self-efficacy (Robinson & Persky, 2020). Conversely, students with low self-efficacy often experience anxiety, withdrawal, or dependence on instructor guidance, which restricts the development of SDL.

2.11.3 Developing and Enhancing SDL Skills in an ODeL Environment

Given that SDL is not an innate trait but a developmental process, efforts are required to equip students with the skills to self-direct their learning. Researchers emphasise that SDL can be cultivated through explicit training in metacognitive strategies, reflective practice, digital literacy, and self-management (Brockett & Hiemstra, 1991; Bhandari et al., 2020). In ODeL environments, structured orientation programmes that familiarise students with online platforms, time management strategies, and self-regulated learning tools are essential for reducing early attrition and improving student persistence (Tinto, 2017; Broadbent, 2017). Scaffolding approaches such as guided learning pathways, reflective journaling, peer learning

communities, and formative feedback can gradually transfer responsibility to students while providing the support necessary for autonomy to develop (Maré & Mutezo, 2021; Adigun et al., 2025). Digital tools and analytics dashboards can support learner reflection and progress monitoring, but their effectiveness depends on students' ability to interpret feedback and make informed decisions. To support SDL, institutions should strive to create learning cultures that normalise help-seeking, collaboration, and self-assessment (Garrison, 1997; Maphalala & Nkosi, 2025).

2.12 RESEARCH GAPS IN ODeL ENVIRONMENTS AND THE SOUTH AFRICAN CONTEXT

Despite extensive research on SDL across higher education, gaps remain, particularly regarding ODeL environments and the South African context. While SDL theory is conceptually well established, empirical research reveals an uneven understanding and limited practical strategies for fostering SDL among diverse student populations. Several areas require further exploration to advance context-responsive SDL research.

2.12.1 Gaps in the Literature

Much of the existing SDL literature has historically been grounded in Western adult-learning contexts, with limited critical interrogation of SDL in Global South systems characterised by inequality, multilingualism, and technological barriers (Oosthuysen et al., 2024). Studies acknowledge that self-directed learning (SDL) processes may manifest differently across cultural and socio-economic contexts; however, empirical research that explicitly accounts for this diversity remains limited (Czerniewicz et al., 2020). Furthermore, SDL is often theorised at the conceptual level, with fewer studies examining the longitudinal development of SDL skills or the nuanced mechanisms underlying students' transition from dependent to autonomous learning. There is also a scarcity of research investigating the role of affective dimensions such as sense of belonging, identity negotiation, and emotional resilience in SDL among ODeL students.

2.12.2 Gaps Specific to SDL in the South African ODeL Context

SDL research has grown in South Africa, particularly following the rapid expansion of online learning during the COVID-19 pandemic. However, research gaps persist in understanding how SDL may be fostered in structurally unequal contexts. Limited empirical evidence exists regarding culturally responsive, multilingual, and decolonial approaches to SDL that acknowledge students' socio-cultural identities and lived realities (Makoe, 2022). There is also

insufficient research on students' perceptions, emotional responses, and coping strategies as they navigate autonomy and self-regulation in ODeL systems, especially among first-generation, rural, and working adult students. Moreover, while studies have examined digital access challenges, fewer have explored how to design pedagogical models and institutional frameworks that compensate for inequality by deliberately building SDL capabilities. The intersection of SDL with AI-powered tools, e-tutors, and emerging digital technologies has only recently begun to receive attention and requires further examination in the South African context.

2.12.3 Unresolved Issues and Under-Explored Areas

Several conceptual and practical issues remain unresolved. Researchers continue to debate whether SDL is primarily an individual capacity, an instructional approach, or an interactive, relational process shaped by systemic conditions (Garrison, 1997; Song & Hill, 2007). There is a need for research that reconceptualises SDL through equity-oriented and culturally relevant theoretical lenses. In addition, more longitudinal, mixed-method, and intervention-based studies are required to evaluate the effectiveness of specific SDL-enhancement strategies and technological tools. Finally, limited attention has been paid to the emotional labour of SDL in OdeL, particularly the ways in which stress, self-doubt, isolation, and cognitive overload affect student autonomy. Addressing these gaps is essential to building sustainable, contextually grounded SDL models that empower diverse students in South Africa and beyond.

2.13 CHAPTER SUMMARY

This chapter has offered a detailed look at the literature on self-directed learning (SDL) in ODeL environments. The studies reviewed highlight SDL as a complex idea that includes cognitive, behavioral, motivational, and contextual aspects. The chapter shows that while SDL relies on students' autonomy, responsibility, and self-regulation, successful implementation depends heavily on support from institutions. The theoretical frameworks discussed, such as constructivism, andragogy, experiential learning, and Self-Determination Theory, illustrate the importance of active student involvement, intrinsic motivation, prior experience, and reflective practice in SDL.

Models of SDL, like Brockett and Hiemstra's PRO Model, Candy's Four-Dimensional Model, Grow's Staged SDL Model, and Garrison's model, offer ways to understand how SDL develops and how it interacts with student agency, teaching methods, and learning environments. Evidence from global and African ODeL practices shows that SDL works well when digital

skills, easy-to-use learning technologies, teamwork among learners, and teaching methods that consider cultural backgrounds are prioritized. However, several obstacles remain, especially in South Africa, where economic inequalities, language diversity, and limited access to digital resources affect students' experiences. The chapter has also highlighted the important role of students in fostering self-directed learning (SDL). It emphasizes motivation, self-efficacy, and self-regulation as key psychological traits that affect student engagement in online distance and e-learning (ODeL). Moreover, institutional policies and the skills of academic staff in encouraging SDL are important factors for SDL success. The chapter ends by pointing out significant gaps in the literature. These include the need for SDL models that fit South Africa's ODeL context, a lack of long-term and intervention studies, minimal attention to the emotional aspects of SDL, and a shortage of Africanized, decolonial, and socially just approaches to SDL. The insights gathered from this literature review provide a foundation for the research methods and design discussed in the next chapter. In particular, the identified gaps support this study's focus on finding ways to enhance SDL in ODeL settings within the South African context.

CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY

3.1 RESEARCH PARADIGM

This study adopts an interpretive paradigm, which emphasises that reality is socially constructed and understood through participants' subjective experiences. This makes interpretivism well-suited for the study. The objective of this research is to explore and comprehend the processes and experiences involved in promoting self-directed learning in Open, Distance and e-learning (ODeL). A research paradigm refers to a "set of common beliefs and agreements" among researchers regarding "how problems should be understood and addressed" (Kuhn, 1962). It is a specific way of perceiving the world (a worldview) that shapes how we seek answers to research questions. Guba (1990) argued that a research paradigm is mainly defined by its ontological, epistemological, and methodological dispositions. According to Crotty (1998), the research process is structured around interrelated dimensions of ontology, epistemology, and methodology, which together shape how knowledge is understood, generated, and interpreted. Crotty emphasises that a research paradigm constitutes a coherent framework of assumptions and beliefs that informs researchers' choices and approaches across these dimensions of inquiry.

3.1.1 Ontology: Nature of Reality

According to Heidegger (2013), ontology may be defined as the study of the essence of reality. Ontology concerns determining the nature of specific phenomena. An interpretivist view of reality sees reality as socially constructed, subjective, and multiple (Junjie & Yingxin, 2022). Interpretivists believe that reality is not a fixed, external entity but is constructed through the meanings and interpretations individuals assign to their experiences. Hay (2002) asserts that interpretivism's ontology views the world from multiple perspectives, and its norms require that these perspectives be viewed equally. According to interpretivism, different people in a society experience and understand the same "objective" reality differently and have individual reasons for their actions (Alharahshel & Pius, 2020). This perspective rejects the notion of a single, objective reality that exists independently of human perception. Instead, it posits that realities are shaped by individuals' social, cultural, historical, and personal contexts. Thus, reality is seen as dynamic and fluid, varying from one person or group to another based on their unique experiences and interactions.

Thus, an interpretivist ontology asserts that reality is subjective and shaped by individuals through their unique experiences. This study recognises that the varied viewpoints of students, educators, and curriculum developers in the ODeL setting contribute to the perception of multiple realities. This perspective emphasises understanding the diverse ways in which self-

directed learning is perceived and experienced, while also acknowledging the fluid, context-dependent nature of these experiences, which are influenced by personal, cultural, and institutional factors.

3.1.2 Epistemology: Nature of Knowledge

Epistemology is the branch of philosophy concerned with the theory of knowledge; it addresses questions about what knowledge is, how it is acquired, and the limits of what can be known. In research, epistemology therefore relates to how researchers understand reality and justify claims about knowledge within a particular paradigm (Crotty, 1998; Schwandt, 2014). Epistemology can also be an ethical matter for researchers, as it involves their perceptions of the world and their ability to distinguish between right and wrong ways of acquiring knowledge (Ryan, 2018). Epistemology significantly influences the interpretive paradigm in qualitative research by guiding how researchers comprehend and interpret knowledge (Luintel, 2020; Junjie & Yingxin, 2022). In qualitative research, epistemology directs researchers to recognise the subjective nature of reality and the importance of understanding individuals' experiences and viewpoints (Lisboa, 2018). The interpretive paradigm is rooted in epistemological principles and highlights the importance of empathy, participatory understanding, and interpretation of social phenomena. This approach enables researchers to explore the intricacies of people's everyday lives and unravel the meanings of their perspectives through qualitative data analysis (Luintel, 2020).

The epistemology of interpretivism in this study focuses on understanding the subjective experiences and perceptions of students, educators, and curriculum developers regarding self-directed learning in an Open, Distance and e-Learning (ODeL) environment. It recognises that knowledge is constructed through social interactions and personal experiences, emphasising the co-creation of meaning between the researcher and participants. This approach aims to investigate the diverse, context-specific interpretations of self-directed learning to gain deeper insights into how it is experienced, understood, and encouraged within the unique setting of an ODeL university.

3.1.3 Methodology: Approach to Research

Interpretivists use a wide variety of qualitative approaches. They also value reflective conversations about how researchers conduct their research, regarding them as valuable sources of knowledge and insight (Nickerson, 2022). In contrast, positivists generally view researchers' reflections and personal narratives as unacceptable for research, as they are not considered scientific or objective (Smith, 1996). Interpretivists assert that there is no single correct path to knowledge and that no specific method automatically leads to intellectual

progress (Smith, 1996). They acknowledge that there are guiding principles for research, but they believe these standards cannot be universally applied. Instead, interpretivists argue that specific groups or cultures shape research standards.

According to Nickerson (2022), interpretive methods rely on questioning and observation to understand the phenomenon under study. They are closely linked with qualitative data-gathering techniques. The interpretivist methodology prioritises qualitative, inductive, and adaptable research approaches intended to delve into the intricacy and depth of human experience. Common techniques are interviews, focus groups, participant observation, case studies, and content analysis. These techniques aim to gather detailed, comprehensive data that capture participants' experiences and viewpoints. This research employs a qualitative methodology, utilising semi-structured interviews, focus group discussions, and document analysis to collect in-depth data on the experiences and perceptions of students, academics, and curriculum developers. This methodology facilitated a flexible, iterative exploration of the meanings participants attribute to self-directed learning in the ODeL context. The researcher involved the participants in co-creating knowledge, striving to capture the complexities and subtleties of how self-directed learning is understood and practised in a particular educational setting.

3.1.4 Synthesis of Interpretivist, Ontological, Epistemological and Methodological Dispositions

The ontology, epistemology, and methodology of interpretivism hold that reality is multiple and relative (Hudson & Ozanne, 1988). According to Lincoln and Guba (1985), these multiple realities are also shaped by other systems, making it challenging to interpret fixed realities (Neuman, 2000). In this discipline, knowledge is understood as socially constructed rather than objectively determined, and as emerging through interpretation and lived experience rather than through detached measurement (Hudson & Ozanne, 1988; Schwandt, 2014). From an interpretivist perspective, researchers therefore avoid rigid, pre-specified structural frameworks typical of positivist inquiry and instead adopt flexible, context-sensitive research designs that allow meanings to emerge through human interaction. Such approaches prioritise understanding how participants construct and negotiate reality, recognising that knowledge is shaped by social, cultural, and historical contexts rather than discovered as a fixed truth (Creswell & Poth, 2018; Schwandt, 2014). They believe that the researcher and their informants are interdependent and mutually interactive (Hudson & Ozanne, 1988). The interpretivist researcher starts with a basic understanding of the research context. However, they believe this understanding is insufficient to develop a fixed research design because of the complex, diverse, and unpredictable nature of reality (Hudson & Ozanne, 1988).

Throughout the study, the researcher remains open to new knowledge and allows it to evolve with the input of the people involved. This approach is collaborative and emergent, in line with the interpretive belief that individuals can adapt and that no one can have prior knowledge of specific social realities in certain times and contexts (Hudson & Ozanne, 1988). Therefore, interpretive research aims to understand and interpret the meanings of human behaviour rather than making generalisations and predictions about causes and effects (Neuman, 2000; Hudson & Ozanne, 1988). An interpretive researcher must understand motives, meanings, reasons, and other subjective experiences bound by time and context (Hudson & Ozanne, 1988; Neuman, 2000). As a result, the interpretive paradigm enables researchers to understand the world through participants' perspectives and experiences, as highlighted by Yanow and Schwartz-Shea (2011) and Creswell (2014).

3.2 RESEARCH DESIGN

Phenomenology is a research approach that aims to elucidate the core of a phenomenon by investigating it from the viewpoint of those who have undergone it (Teherani et al., 2015). Phenomenology aims to expound on the significance of this experience, encompassing what was experienced and how it was experienced (Teherani et al., 2015). Neubauer et al. (2019) define phenomenology as a qualitative research approach that examines an individual's lived experiences in the world. As a method, phenomenological research is known for its flexibility (Garza, 2007). It can follow a structured series of steps or be less structured and guided by the experiences being gathered (Flood, 2010). Researchers in phenomenology analyse the data by seeking themes, patterns, or trends, and usually include quotes from study participants in the results (Parahoo, 2014). Phenomenology is a qualitative research approach that aligns well with this study, as it explores the lived experiences of students, academics, and instructional designers regarding self-directed learning in the ODeL environment. This design aims to uncover the essence of these experiences by delving into participants' perceptions, emotions, and meanings associated with their self-directed learning practices. Phenomenology enables the researcher to capture and interpret the unique and shared aspects of self-directed learning in an ODeL context, offering insights into the factors that shape these experiences. In line with the phenomenological design, data was gathered through semi-structured interviews, focus group discussions, and document analysis. These qualitative methods allowed the researcher to collect rich, detailed accounts of students' experiences. Thematic analysis revealed themes and patterns in the participants' narratives during data analysis.

3.3 RESEARCH APPROACH

The study employed a qualitative research approach to explore the processes and experiences of promoting self-directed learning in an Open, Distance and e-Learning (ODeL) university. Qualitative research gathers data on participants' experiences, perceptions, and behaviours. It answers the “how” and “why” questions rather than the “how many” or “how much” questions. It could be structured as a standalone qualitative study or as part of a mixed-methods study that combines qualitative and quantitative data (Tenny et al., 2022). Qualitative research is concerned with understanding the nature and meaning of social phenomena by examining how individuals interpret and make sense of their experiences within specific contexts (Aspers & Corte, 2019). It is especially appropriate for answering questions of why something is or is not observed, assessing complex multi-component interventions, and focusing on intervention improvement. The most common data collection methods are document studies, participant observations, semi-structured interviews, and focus groups. The qualitative approach was well-suited to this study because it thoroughly explored participants' subjective experiences, perceptions, and meanings regarding self-directed learning in the ODeL environment. Concentrating on participants' first-hand experiences enabled the researcher to capture the complexities and nuances of self-directed learning in a flexible, adaptive way. The qualitative research approach is grounded in the interpretivist paradigm, which seeks to understand reality as a socially constructed phenomenon. This method involves collecting in-depth data through virtual semi-structured interviews, focus group discussions, and document analysis, enabling the study to thoroughly explore participants' perspectives. The qualitative research approach also enabled a comprehensive investigation of how self-directed learning may be encouraged in an ODeL university.

3.4 POPULATION AND SAMPLING PROCEDURES

3.4.1 Population

The participants in this study were chosen because they were actively engaged in teaching, learning, or instructional design in an ODeL setting. The target population comprises three main categories: final-year undergraduate students in the Bachelor of Education (B.Ed.) programme, academics, and instructional designers at the chosen ODeL university. The first category consisted of final-year students enrolled in the Bachelor of Education programme at an ODeL university. These students were selected because they had been engaged in self-directed learning in an ODeL environment for over 4 years. Their perspectives offered valuable insights into the difficulties they encountered, the methods they used, and their perceptions of self-directed learning in this context. The second group comprised academics from various

departments in the College of Education at an ODeL university. These academics promote self-directed learning by developing and providing courses, supporting student learning, and implementing teaching approaches that foster independence and active engagement. Their expertise and perspectives provided insight into organisational practices and educational methods that facilitate or hinder self-directed learning. The third category comprised instructional designers responsible for creating and organising the curriculum, course materials, and resources for the ODeL university. As crucial contributors to the learning environment, instructional designers influence how self-directed learning is facilitated through course design, technology integration, and learning support systems. Their input helped the researcher understand the design principles and strategies for promoting self-directed learning in the ODeL context.

The combined perspectives of these three categories – students, academics, and instructional designers – provided a comprehensive view of the factors influencing self-directed learning in an ODeL university, offering a thorough understanding of the processes, challenges, and opportunities for promoting self-directed learning in this unique educational setting.

3.4.2 Sampling

The study adopted purposive sampling to select participants (eight students, eight academics, and two instructional designers) from the population. Purposive sampling is a non-probability sampling method that selects individuals most likely to provide rich and relevant information about the research topic. Etikan, Musa, and Alkassim (2016) argue that purposive sampling involves the deliberate selection of information-rich cases based on their relevance to the research purpose, noting that such samples are not intended to be statistically representative of a wider population but to provide in-depth understanding of the selected group itself. Purposive sampling allowed the inclusion of participants with expertise in ODeL, mainly academics and instructional designers. Their expert opinions and experiences provided valuable insights into the challenges, opportunities, and innovations associated with re-envisioning ODeL environments. Edmonds and Kennedy (2017) posit that purposive sampling serves a specific purpose in research. The study sought to gain an in-depth understanding of participants' experiences and perceptions; purposive sampling enabled the selection of participants most likely to help the researcher achieve this objective. Participants were therefore selected based on specific criteria, including experience with self-directed learning in ODeL environments and willingness to participate in the study. While purposive sampling enabled the selection of information-rich participants, it also limits the generalisability of the findings. The study was conducted within a single ODeL institution with a relatively small

sample (n=18), and therefore the findings are context-bound and should be interpreted as providing in-depth insights rather than broad generalisations.

Table 3.1: List of Participants and Methods of Data Collection

Participants	**Data collection method**	**Total Participants**
4th Year BEd students	Focus group discussions	08
Academics	Semi-structured interviews	08
Instructional designers	Semi-structured interviews	2
Total		18

3.5 Data Collection

The study employed three qualitative data-gathering approaches to gain a thorough understanding of experiences, viewpoints, and challenges in promoting self-directed learning in an ODeL setting. These methods were virtual semi-structured interviews and virtual focus group discussions. It is important to note that the data collected in this study are predominantly self-reported, reflecting participants' perceptions and experiences. While these insights are valuable for understanding lived experiences, they may be influenced by personal bias, recall limitations, or social desirability. This limitation was mitigated by using both semi-structured interviews and focus group discussions to enhance the credibility of the findings.

3.5.1 Focus Group Discussions

Creswell (2013:164) observes, "Focus group discussions are advantageous when the interaction among interviewees is similar and cooperative with each other when the time to collect information is limited, and when individuals interviewed one-on-one may be hesitant to provide information." On the other hand, Etikan, Musa, and Alkassim (2016) argue that purposive sampling involves the deliberate selection of information-rich cases based on their relevance to the research purpose, noting that such samples are not intended to be statistically representative of a wider population but to provide in-depth understanding of the selected group itself. Open-ended questions were used to elicit rich, detailed responses.

A virtual focus group discussion involved eight final-year students in the Bachelor of Education program at the ODeL institution. Focus group discussions are an expanded form of the interview method, a more detailed group interview with discussion. A facilitator leads the

exploration of selected topics in a structured and organised manner. The primary aim of a focus group discussion is to gain in-depth insights into participants' perspectives, experiences, and meanings related to a specific topic through interactive group discussion (Krueger & Casey, 2015). This method is commonly used to develop a rich understanding of social issues by generating data from a purposively selected group of participants, rather than from a statistically representative sample of the broader population (Morgan, 2018). The method was beneficial for understanding students' collective viewpoints and shared experiences regarding self-directed learning. The setup of group discussions encouraged participants to talk, allowing them to build on each other's ideas, provide different perspectives, and explore differences in experiences. The discussion was guided by open-ended questions designed to explore how students perceive and engage in self-directed learning, their challenges, and the effectiveness or inadequacy of their support systems in the ODeL environment. The virtual focus group discussion took place on a secure online platform that ensures participant privacy and promotes open, honest communication.

3.5.2 Semi-Structured Interviews (Academics)

Semi-structured interviews were the primary method for data collection in this research. According to Onchwari and Keengwe (2017), semi-structured interviews involve a formal list of open-ended questions to initiate discussion and the opportunity to explore themes or responses in greater depth. Ruslin et al. (2022) argue that the semi-structured interview allows qualitative researchers to maintain flexibility and adaptability while engaging with interviewees. However, they also note that the structure of the semi-structured interview differs from the open-ended nature of unstructured interviews, as it provides a level of control over the direction of the conversation. Furthermore, Magaldi and Berler (2020) suggest that the semi-structured interview allows researchers to conduct in-depth exploration and discovery despite having predetermined topical areas before the interview.

The study conducted virtual semi-structured interviews with eight academics from eight departments in the College of Education and two instructional designers at the institutional level. The semi-structured format allowed for open-ended questions that encouraged participants to express their experiences and opinions freely, as well as more targeted questions to ensure coverage of specific topics. This approach offers flexibility to delve deeper into participants' responses, allowing for rich, qualitative insights to emerge on their perspectives on fostering SDL in an ODeL context.

3.5.3 Semi-Structured Interviews (Instructional Designers)

In addition to academics, semi-structured interviews were conducted with two instructional designers to gain insight into how course design, learning management systems, and technological tools support or constrain self-directed learning in ODeL.

Semi-structured interviews were chosen for this study because they are well-suited for exploring human experiences, perceptions, and practices. Participants can express their thoughts in their own words, while researchers can request clarification or additional details when needed (Fylan, 2005). This study examines how ODeL universities can promote self-directed learning (SDL). Semi-structured interviews allowed for a deeper exploration of opinions on course design, teaching practices, and student learning behaviours. The method also helps verify data from other sources, such as student and academic interviews, thereby making the findings more credible (Nieuwenhuis, 2010). Semi-structured interviews are an effective method for generating rich, qualitative data. They create a conversational setting and use open-ended questions, making participants feel comfortable discussing their personal and professional experiences (Polit & Beck, 2010). Probing questions help researchers uncover deeper meanings and insights that might not emerge in structured surveys (Kallio et al., 2016). This approach fits the study's goal of understanding the complex processes that support SDL in an ODeL setting.

The research questions for this thesis aim to identify factors that influence SDL, the teaching methods and technological tools that support it, and the institutional practices that aid its development. Semi-structured interviews were helpful because they enabled the researcher to explore these themes in depth across different participant groups. With instructional designers, the method helped clarify how decisions about course design, learning management systems, and technology use either promote or hinder SDL. These insights directly relate to the study's goal of identifying practices and teaching methods that better support SDL in ODeL environments.

Semi-structured interviews were conducted with two instructional designers. These professionals develop and align course materials and learning management systems with educational goals. Their input was crucial, as they showed how design choices and technology shape the environment for SDL. In addition, semi-structured interviews were conducted with ten final-year Bachelor of Education students and ten academic staff members. Together, these participants offered a wide-ranging perspective on SDL in an ODeL university.

A semi-structured interview guide was created to support the process. It included open-ended questions organised around the research objectives, allowing adjustments based on

participants' responses. This balance ensured that important themes were covered across interviews while allowing participants to share unexpected insights (Rubin & Rubin, 2005).

All interviews were conducted with participants' informed consent. Before the interviews, participants received information about the study's purpose, the voluntary nature of their participation, and their right to withdraw at any time without penalty. Written consent was obtained for participation and audio recording. The recordings accurately captured participants' views and were later transcribed for analysis. To protect participants' rights, confidentiality and anonymity were guaranteed. Pseudonyms were used when reporting findings, and identifying information was removed.

3.6 DATA ANALYSIS

The data generated through virtual focus group discussions, semi-structured interviews, and document analysis were analysed using Braun and Clarke's (2006) six-phase thematic analysis approach. Thematic analysis is a flexible method for identifying, analysing, and reporting patterns within qualitative data, offering a rich and detailed account of participants' perspectives (Braun & Clarke, 2006, 2012). It was selected because it aligns with the interpretive paradigm and the phenomenological design of the study, enabling the researcher to move beyond surface-level descriptions to interpret the meaning embedded in participants' lived experiences of SDL in an ODeL context. The analysis followed an inductive, data-driven approach, ensuring that themes were strongly linked to the data rather than being imposed a priori (Braun & Clarke, 2006; Nowell et al., 2017).

Phase 1: Familiarisation with the Data

In the first phase, the researcher immersed himself in the data by repeatedly listening to audio recordings, reading and re-reading the verbatim transcripts, and reviewing the documents collected for the study. This immersion enabled the researcher to gain an in-depth understanding of participants' experiences of SDL in the ODeL context (Braun & Clarke, 2006). Reflexive notes and memos were written during this stage to capture initial impressions, recurrent issues, and potential patterns relevant to SDL, lecturer support, and institutional practices. This phase laid the foundation for a deep engagement with the data, consistent with phenomenology's emphasis on understanding lived experiences (Vasileiou et al., 2018).

Phase 2: Generating Initial Codes

The second phase involved systematically coding meaningful units of data across the entire dataset. Coding was conducted manually to maintain closeness to the data and aligned with an inductive approach, in which codes were not predetermined but derived from participants'

accounts (Braun & Clarke, 2006). Each transcript was examined line by line, and text segments relevant to the research objectives – such as descriptions of autonomous learning practices, challenges faced in ODeL, institutional support mechanisms, and strategies for fostering SDL were labelled with initial codes. Codes were applied consistently across datasets from students, academics, and instructional designers to allow for comparison and pattern identification across participant groups (Braun & Clarke, 2019).

Phase 3: Searching for Themes

In this phase, initial codes were reviewed and collated into potential themes based on conceptual similarity and relevance to the research questions. Codes that related to similar ideas were grouped together to form broader meaning patterns. For example, codes relating to “time management,” “motivation,” and “self-regulation” were clustered into potential themes reflecting SDL competencies. In contrast, codes related to “feedback delays” and “limited lecturer–student interaction” formed part of a theme on institutional and pedagogical barriers. Mind maps and thematic tables were used to organise relationships among codes and emerging subthemes (Braun & Clarke, 2006). The aim at this stage was to identify initial candidate themes that captured patterned meaning across the data corpus.

Phase 4: Reviewing Themes

The fourth phase involved refining and reviewing the initial themes to ensure coherence, internal homogeneity, and external distinction across the dataset (Braun & Clarke, 2006). Themes were checked against the coded extracts and the full dataset to verify if they accurately represented participants’ perspectives and if the data supported their inclusion. Some initial themes were collapsed into a single theme, while others were separated into subthemes to enhance analytic clarity. For example, the broader theme of “Institutional Support” was refined into more focused subthemes, including “Academic Support,” “Technological Support,” and “Psychosocial Support”. This iterative review ensured that themes accurately reflected the experiences of fostering SDL in an ODeL environment. Draft themes were also discussed with a peer reviewer to enhance credibility and minimise interpretive bias, consistent with recommended best practice (Nowell et al., 2017).

Phase 5: Defining and Naming Themes

In this phase, each theme was clearly defined, refined, and named to capture its essence, scope, and contribution to understanding SDL in ODeL contexts (Braun & Clarke, 2006). A detailed analysis of each theme was written to articulate what it revealed about participants’ lived experiences, and how it related to the research questions. Subthemes were developed, where relevant, to organise complex themes. For example, the theme “Learner Agency and

SDL Competencies" included subthemes such as "Self-Motivation," "Time Management Skills," and "Digital Literacy for Independent Learning." Definitions were refined to ensure distinctiveness and to avoid overlap across themes.

Phase 6: Producing the Report

The final phase involved weaving together the themes, supporting extracts, and interpretive commentary to produce a coherent, compelling narrative that addressed the research questions and reflected participants' voices (Braun & Clarke, 2006). Verbatim quotes were integrated to illustrate themes and ensure that findings remained grounded in participants' lived experiences, in line with phenomenological reporting standards (Neubauer et al., 2019). The report highlighted how themes are interconnected, providing insight into the personal, pedagogical, and institutional factors that influence the fostering of SDL in ODeL. This phase culminated in the writing of Chapters 4 and 5, in which the findings were presented, analysed, and interpreted in relation to the existing literature.

Applying Braun and Clarke's systematic phases supported a transparent data analysis process, ensuring analytical depth, credibility, and alignment with the study's interpretive and phenomenological orientation. The approach enabled the researcher to move from raw data to meaningful themes that reflect the complexities and contextual nuances of fostering SDL in an ODeL university.

3.7 TRUSTWORTHINESS

The study incorporated various measures to enhance the quality and robustness of the research outcomes, ensuring the credibility and dependability of the qualitative findings. The trustworthiness of the study is crucial for establishing the credibility and reliability of qualitative findings, given their subjective nature (Lincoln & Guba, 1985; Creswell & Poth, 2018). This study involved credibility, transferability, dependability, and confirmability (Ahmed, 2024). To ensure the accuracy of the findings in representing the experiences and perspectives of students, academics, and instructional designers, the researcher used member checking and triangulation as validation methods. Member checking entails sharing preliminary findings with participants to confirm whether the results align with their views and experiences. Triangulation involves the use of multiple data sources, such as semi-structured interviews, focus groups, and document analysis, to validate and strengthen the findings, thereby improving the accuracy and depth of the insights. The study contains in-depth descriptions of the research setting, the individuals involved, and the locations, enabling readers to form well-informed opinions about how applicable the findings are to other situations. Thorough explanations of the ODeL environment, the participant demographics, and the particular research conditions

help readers understand the extent to which the findings may be applied to comparable populations or settings.

The researcher kept an audit trail to ensure the study was reliable and consistent. This involved detailed documentation of every stage of the research process, including data collection, coding, and analysis, along with the rationale for the methodological and analytical decisions. The audit trail should allow other researchers to follow the research process and possibly replicate the study in similar or different settings, thus enhancing the credibility of the findings. The study prioritised confirmability by ensuring that the results were shaped by participants' voices and experiences rather than the researcher's preconceptions or biases. Confirmability refers to the fairness and objectivity of the findings, ensuring that they are not influenced by the researchers' biases or preferences (Kakar, Rasheed, Rashid, & Akhter, 2023). This was achieved through reflexivity, where the researcher consistently examined his potential biases, assumptions, and impact throughout the study. Transparent documentation of the research process, including reflective notes and notes on decisions made during data analysis, further supported confirmability, indicating that the findings are based on the data provided by the participants. Following these steps enhanced the credibility of the study, offering a strong and trustworthy understanding of how self-directed learning can be encouraged in an Open, Distance and e-learning university environment. Despite these measures, the study acknowledges that qualitative findings are context-specific and shaped by participants' perspectives and the research setting, reinforcing the importance of interpreting them within their contextual boundaries.

3.8 ETHICAL CONSIDERATIONS

This research adhered to ethical guidelines, ensuring that all participants provided informed consent and participated voluntarily. The principle of confidentiality was observed, as no participant details are provided in this report. Before beginning data collection, the researcher obtained ethical clearance from Unisa’s College of Education Ethics Committee. The researcher addressed several ethical considerations to ensure the protection and respect of all participants involved in the study. In providing informed consent, all participants, including students, academics, and instructional designers, were informed of the study's purpose, the methods of data collection (semi-structured interviews and focus group discussions), and their right to withdraw at any time without consequences. Information concerning participants remained confidential and anonymous to safeguard their identities. This was achieved through the use of pseudonyms and secure data storage. Participants were assured that their responses would be used exclusively for academic purposes and would not be shared with any third parties without their explicit consent. Furthermore, the researcher ensured that all

interactions were handled with sensitivity, acknowledging and respecting participants' diverse backgrounds and experiences. To minimise potential risks, such as emotional discomfort during discussions about their experiences, a supportive environment was provided, and participants could skip any questions that might cause distress.

3.9 CHAPTER SUMMARY

Chapter 3 has justified and detailed the study's research design and methodology for exploring how self-directed learning (SDL) is promoted in an Open, Distance and e-Learning (ODeL) university. Guided by an interpretive paradigm, the chapter argued that reality is multiple, socially constructed, and context-bound, and that understanding SDL in ODeL requires accessing the meanings students, academics, and instructional designers ascribe to their experiences. Ontologically, the study assumes plural, fluid realities; epistemologically, it embraces co-constructed knowledge produced through dialogue between researcher and participants; methodologically, it privileges qualitative, inductive, flexible approaches suited to capturing depth, nuance, and context.

To align with these commitments, the study adopted a phenomenological design that seeks to uncover the essence of the lived experience of SDL in ODeL. A qualitative approach was therefore employed to answer "how" and "why" questions about processes, practices, and meanings rather than to measure prevalence. The population comprised three information-rich groups within the ODeL setting: final-year B.Ed students, academics from the College of Education, and instructional designers. Using purposive sampling, the study recruited 18 participants (eight students, eight academics, and two instructional designers) based on their direct engagement with SDL in ODeL.

Data were generated through virtual focus group discussions (students), and virtual semi-structured interviews (academics and instructional designers), complemented by document analysis. These techniques enabled detailed, situated accounts of practices, challenges, and enabling conditions for SDL. Data were analysed using inductive thematic analysis (Braun & Clarke, 2006), progressing through familiarisation, coding, theme development, review, definition, and reporting to surface patterned meanings that speak directly to the research questions.

Rigour was maintained through a comprehensive trustworthiness strategy: credibility (member checking, triangulation of methods and sources), transferability (rich, thick description of context and participants), dependability (an explicit audit trail of methodological decisions), and confirmability (reflexive practice and transparent documentation to bracket researcher

bias). While this strengthened the depth and credibility of the findings, the absence of objective data sources such as Learning Management System (LMS) analytics or academic performance records limited the ability to triangulate participants' reported behaviours with observable learning outcomes. The study met stringent ethical requirements, including prior institutional clearance, informed consent, voluntary participation, confidentiality, anonymity through the use of pseudonyms, secure data handling, and sensitivity to participants' diverse backgrounds and potential discomfort. The chapter demonstrated methodological alignment between paradigm, design, sampling, methods, and analysis. It established a coherent, ethical plan capable of generating contextually grounded insights into the processes, experiences, and institutional dynamics that shape the fostering of SDL in ODeL. The methodology used positioned the study to produce credible evidence for the recommendations and implications that follow.

CHAPTER 4: PRESENTATION OF FINDINGS

4.1 INTRODUCTION

This chapter presents the key findings from the data collected through virtual focus group discussions and semi-structured interviews. The findings are based on the experiences and views of final-year B.Ed students, academic staff, and instructional designers at a South African Open, Distance and e-Learning (ODeL) university. The study aimed to explore strategies and practices that ODeL universities can employ to promote self-directed learning, thereby enhancing student engagement, autonomy, and academic success. To achieve this aim, the following research objectives guided the study:

4.1.1 Main Research Question

How can open, distance and e-learning (ODeL) universities effectively promote self-directed learning among their students to enhance their engagement, autonomy, and academic success?

4.1.2 Research Sub-Questions

4.1.2.1 What factors influence self-directed learning among students in an ODeL environment?

4.1.2.2 Which teaching strategies and technological tools best promote self-directed learning in ODeL universities?

4.1.2.3 What personal attributes and motivations improve self-directed learning in ODeL environments?

4.1.2.4 What support systems nurture self-directed learning among ODeL students?

4.1.2.5 Which demographic factors influence the development of self-directed learning abilities in an ODeL setting?

4.1.2.6 What mechanisms can be put in place to ensure that students become self-directed students in an ODeL institution?

This chapter presents findings related to these goals. It begins with a profile of the participants, explaining the coding system used to maintain their privacy. The central part of the chapter highlights the themes that emanated from the data. These themes emerged from a careful process of thematic analysis and are supported by direct quotes from participants. The data were analysed using the thematic analysis method proposed by Braun and Clarke (2006). This process enabled the identification of patterns and themes that reflect participants' insights on how SDL is experienced, supported, and challenged in the ODeL context. The themes

presented in this chapter offer a grounded understanding of the interplay between students, educators, technologies, and institutional structures in fostering self-directed learning.

4.2 OVERVIEW OF PARTICIPANTS

A total of eighteen (18) participants were purposely chosen for this study. They represent a diverse group of stakeholders involved in teaching, learning, and instructional design within the ODeL university setting. This sampling method ensured that the participants had first-hand experience and knowledgeable views on self-directed learning in Open, Distance and e-Learning environments.

The sample included the following groups:

- Eight final-year Bachelor of Education (B.Ed) students. These students had at least four years of experience studying in an ODeL context. Their contributions provided valuable insight into the practical realities, challenges, and strategies of SDL from a student's perspective.
- Eight academic staff members. These academics came from various departments within the College of Education. As course facilitators and curriculum implementers, they provided valuable insights into teaching methods and institutional factors that either support or hinder the growth of SDL among students.
- Two instructional designers. These professionals develop, structure, and align course materials and learning management systems with educational goals. Their insights highlighted how course design and technological tools enhance or limit SDL.

Table 4.1 summarises the participant groups and the data collection methods used.

Table 4.1: Summary of Participants

Participant Category	**Data Collection Method**	**Number of Participants**
Final-Year B.Ed Students	Focus Group Discussions	08
Academic Staff	Semi-Structured Interviews	08
Instructional Designers	Semi-Structured Interviews	02
Total		18

This diverse sample allowed for a rich, triangulated understanding of SDL in the ODeL setting. The following section (4.3) introduces the coding framework used to anonymise participant identities and differentiate their responses during thematic analysis.

4.3 CODING OF PARTICIPANTS

A coding system was implemented to maintain participant anonymity while enabling clear identification during analysis. The system categorises participants by their roles within the ODeL university and assigns each a unique identifier. This method adheres to good practices in qualitative research and purposive sampling, as outlined by Edmonds and Kennedy (2017). The coding categories are as follows: eight B.Ed. students were coded as S1, S2, S3, …, S8. S1 represents the first student participant, and S2 represents the second, and so on. There were also eight academics, coded as A1, A2, A3, …, A8. A1 corresponds to the first academic participant, A2 to the second, and so forth. Instructional designers are coded as ID1 and ID2, with ID1 being the first and ID2 the second. Using these alphanumeric codes protects individual identities, which is essential for ethical qualitative research. Coding makes it easier to organise data during thematic analysis, facilitating straightforward cross-referencing of participant responses within and across different groups. The participants were selected based on their potential to provide rich, relevant insights into self-directed learning in an ODeL context (Edmonds & Kennedy, 2017). The coding system helped maintain clarity in roles and perspectives throughout the study.

Table 4.2: Coding System for Participants

#	Participant Role	Gender	Code
1.	B.Ed Student	Female	S1
2	B.Ed Student	Female	S2
3	B.Ed Student	Female	S3
4	B.Ed Student	Female	S4
5	B.Ed Student	Female	S5
6	B.Ed Student	Female	S6
7	B.Ed Student	Male	S7
8	B.Ed Student	Male	S8
9	Academic	Female	A1
10	Academic	Female	A2
11	Academic	Female	A3
12	Academic	Female	A4
13	Academic	Female	A5
14	Academic	Female	A6
15	Academic	Female	A7
16	Academic	Male	A8

17	Instructional Designer	Female	ID1
18	Instructional Designer	Female	ID2

This coding framework is consistently applied throughout the study's analysis. Each direct quote and reference in the findings is accompanied by its respective code (e.g., S1, A3, ID1) to ensure traceability and to uphold the integrity of the data analysis process.

4.4 FINDINGS

The findings are organised under themes corresponding to the main and sub-research questions. Where relevant, verbatim quotes from the participants – eight students, eight academics, and two instructional designers – are provided to illustrate the perspectives and experiences shared.

Table 4.3 consolidates the themes derived from the data analysis of the three participant groups and outlines the key findings for each group regarding SDL in an ODeL context.

Table 4.3: Summary of the Findings

Theme	**Students (S1–S8)**	**Academics (A1–A8)**	**Instructional Designers (ID1–ID2)**
1. Understanding SDL in ODeL	Autonomy, accountability, flexible pacing; independence to plan/act on learning.	SDL = plan–monitor–evaluate; metacognitive regulation; must be taught, not assumed.	Design for flexibility and exploration; balance communities of inquiry (CoI) (teaching/social/cognitive) to enable autonomy.
2. Personal Attributes that Influence SDL	Intrinsic motivation, self-discipline, confidence, resilience help; procrastination and isolation hinder.	Confidence, resilience, self-awareness/adaptability are pivotal to SDL success.	Isolation risk is real; design should boost confidence via belonging/social presence.
3. Course Design & Pedagogical Practices	Clear structure, logical sequencing, and multimodal resources reduce cognitive load and support independence.	Scaffold autonomy progressively; align assessments to critical thinking, application, and reflection.	CoI-aligned, user-friendly entry/welcome pages; embed interaction to sustain independent engagement.
4. Peer Support & Learning Communities	WhatsApp/Telegram groups = summaries, accountability,	Peer learning reduces transactional distance; promotes co-	Institutionalise "student lounges"/peer spaces in the learning management

	motivation; counter home distractions and isolation.	construction and agency.	system (LMS) with minimal facilitation.
5. Ecosystem Factors Influencing SDL	Digital literacy is crucial; myUnisa is a helpful hub, but instability, load shedding, and data costs are derailing progress.	SDL needs readiness and robust support; the digital divide persists, though some platform improvements have been noted.	Prioritise User Experience **(**UX) clarity, low-bandwidth design, scaffolded navigation, and continuous user feedback loops.
6. Institutional & Systemic Support (Strengths/Deficits)	Value e-tutors, guides, libraries; delays/slow responses and unreliable systems erode trust; limited external (govt) support.	Call for leadership-led investment, staff training, and device/data support.	Integrate services on stable platforms; institutionalise digital-literacy training; reliability is non-negotiable.
7. Teaching Strategies & Technological Tools	Interactive videos, auto-feedback quizzes, and responsive forums help; peers fill gaps when forums are slow; device/data limits bite.	Use inquiry, interactive tasks, and reflective prompts to cultivate independence.	Build self-guided, interactive modules; explore AI/simulations but design for equity and affordability.
8. Motivation, Self-Efficacy, Time Management	Goal-setting and self-belief sustain progress; procrastination, family duties, and time-management challenges persist.	Self-efficacy is central; time-management strongly correlates with performance; goal-setting differentiates.	Do not assume uniform readiness; differentiate supports and pace.
9. Demographic Factors	Younger = more digitally fluent, but discipline varies; older/returning = disciplined but need tech support; rural barriers are acute.	Tailor support by age/experience and location; digital literacy is a key differentiator.	Tiered digital-skills onboarding; inclusive/accessible design for diverse cohorts.
10. AI-Enabled Language & Learning Support	Use ChatGPT/QuillBot for clarification, ideas, grammar; aim to learn, keep an authentic voice, and avoid plagiarism.	Encourage ethical, formative AI use; integrate AI-literacy guidance.	Provide AI-use guardrails; embed low-risk AI supports (explainers, hints) within courses.

11. Mechanisms to Ensure SDL	Compulsory orientation, ongoing mentorship/check-ins, and adaptive tools support self-regulation.	Explicitly teach SDL strategies; comprehensive induction; use learning analytics for early alerts.	Personalised dashboards, embedded feedback loops, and standardised onboarding across modules.

The following 11 sections present the findings under each of these themes.

4.4.1 Theme 1: Understanding Self-Directed Learning (SDL) in ODeL

Analysis of the data demonstrates that participants across all groups shared a similar understanding of self-directed learning (SDL) as a process centred on student autonomy, responsibility, and active engagement in managing one's learning journey. This theme responds to Research Sub-question 1.4.2.1: “What factors influence self-directed learning among students in an ODeL environment?” and Objective 1.5.2.1: “To explore factors influencing students' self-directed learning in an Open, Distance and e-learning environment.” Students generally regarded SDL as the ability to take initiative and work independently without continuous supervision from the lecturer. One student, S2, articulated this view, stating:

> *“Self-directed learning means I don’t have to wait for a lecturer to tell me what to do. I decide when and how to learn.”*

This emphasis on independence was reinforced by another student, S6, who highlighted accountability for one’s own progress, noting:

> *“I think it’s about being responsible for your learning and knowing what works for you.”*

Academics offered a more structured and holistic definition of SDL that extended beyond independence to include student agency, self-regulation, and reflection. An academic, A1, explained:

> *“SDL in our context means students must take charge, plan, monitor, and evaluate their learning.”*

This highlights dimensions of metacognitive regulation aligned with SDL theory. A3 supplemented this perspective by emphasising students' responsiveness to contextual demands such as time, resources, and workload management:

"A self-directed student will then take control … and match them to their available time and resources."

This suggests that academics regard SDL not as a fixed trait but as a learned competency requiring intentional development.

Instructional designers similarly conveyed that SDL is both a student attribute and a design-driven process enabled through flexible, student-centred learning environments. One designer emphasised the role of curriculum design in fostering SDL:

"*We design for SDL by allowing flexibility and embedding resources that allow exploration" (ID1).*

This reflects an understanding that instructional design shapes students' capacity to act autonomously. The same designer explained the alignment of SDL with the Community of Inquiry (CoI) framework, highlighting the balance of student agency with structured support:

"When we plan modules, we ensure the teaching, social and cognitive presences interact to create an educational experience that supports student autonomy" (ID1).

The inclusion of CoI elements reinforces the notion that SDL is not achieved through independence alone but through intentional design that balances guidance and freedom.

The findings reveal that the perspectives of students, academics, and instructional designers are aligned, with all acknowledging SDL as a shared responsibility. Students tended to view SDL through a behavioural lens, focusing on independence and personal responsibility. In contrast, academics and instructional designers adopted a more systemic view that recognises SDL as a developmental process supported by pedagogical scaffolding and design. These findings highlight that fostering SDL in an ODeL context requires not only student motivation and self-regulation but also deliberate instructional design that nurtures autonomy, provides structured guidance, and cultivates student confidence. This highlights the importance of an integrated institutional approach where SDL is co-constructed through student agency, academic support, and sound design.

4.4.2 Theme 2: Personal Attributes Influencing Self-Directed Learning in ODeL

The findings reveal that individual student attributes such as motivation, self-discipline, confidence, and resilience play a pivotal role in shaping students' ability to engage in self-directed learning in an ODeL environment. This theme responds to Research Sub-question 1.4.2.1 and Objective 1.5.2.1, which explore factors influencing student self-directed learning

in ODeL contexts, by focusing on personal characteristics that either enable or hinder SDL. Students highlighted the importance of intrinsic motivation as a driving force behind successful SDL. One student, S4, expressed that internal drive is essential for progress, stating:

> *"If you are not motivated from within, you will fall behind because no one is pushing you."*

This suggests that, in the absence of face-to-face lecturer presence, motivation becomes a self-generated energy that sustains learning effort. S7 reinforced the significance of self-discipline:

> *"You need discipline to study on your own; otherwise, time just passes, and you realise you haven't done anything."*

These reflections indicate that students recognise SDL as an intentional act that requires sustained commitment, effort, and self-management – attributes frequently highlighted in the SDL literature.

Academics echoed the importance of motivation and self-discipline but further elaborated on confidence and resilience as essential personal traits for SDL success. One academic, A2, emphasised:

> *"Self-directed learning requires confidence to engage with material independently and resilience to keep going even when it becomes difficult."*

The reference to resilience suggests that SDL also involves emotional endurance, particularly when learning challenges arise without immediate academic support. A4 highlighted the importance of self-awareness and adaptability:

> *"Students who understand their strengths and weaknesses, and adjust their strategies accordingly, perform better in self-directed learning."*

From this perspective, metacognitive awareness is considered a critical personal attribute that enables students to reflect and adjust their learning approaches.

Instructional designers acknowledged personal attributes as influential but emphasised that design can either support or suppress these traits. One designer explained the challenge faced by students who lack confidence in SDL, stating:

> *"Some students feel alone in ODeL, and if they lack confidence, they withdraw and stop participating" (ID1).*

This reinforces the idea that confidence not only influences student engagement but also affects persistence in virtual learning spaces. The other designer described how thoughtful design can boost morale and sustain motivation, emphasising the role of social presence:

> *"When we encourage activities that help students feel part of a community, it strengthens their confidence to participate and to keep trying" (ID2).*

These insights align with the thinking behind communities of inquiry, which are built on the human desire for a sense of relationship and of belonging. This sense of relationship and of shared learning can be highly motivating to students.

These findings demonstrate that personal attributes influence not only how students approach SDL but also how they respond to ODeL challenges. Motivation and self-discipline were identified as foundational drivers of SDL, while confidence, resilience, and self-awareness enabled students to navigate setbacks and sustain independent learning efforts. Academics and instructional designers further emphasised that although personal traits originate within students, they are reinforced through supportive design, peer interaction, and academic structures. This suggests that the development of SDL in ODeL is strengthened when personal attributes are nurtured by intentional pedagogical and design practices. Thus, fostering SDL requires a dual focus on cultivating student dispositions and on designing learning environments that amplify them through connection and support.

4.4.3 Theme 3: Curriculum and Course Design Strategies that Foster Self-Directed Learning

The findings suggest that curriculum design plays a central role in enabling or constraining self-directed learning (SDL) in ODeL, particularly through the intentional structuring of learning activities, resources, and support mechanisms. This theme addresses how purposeful course design can foster engagement and independent learning, thereby influencing the development of SDL. It responds to Research Sub-question 1.4.2.2: "How do pedagogical and curriculum design practices facilitate self-directed learning in an ODeL environment?" and Objective 1.5.2.2: "Examine how curriculum and pedagogical design practices support SDL in ODeL".

Students acknowledged that well-designed modules encouraged independence by providing clear guidance, structured learning pathways, and access to relevant resources. S5 highlighted the value of course clarity:

> *"When a module is well organised, with clear instructions and activities, it becomes easier to learn on your own without confusion."*

This suggests that clarity and logical sequencing of activities can minimise cognitive load and empower students to self-direct. Another student, S8, emphasised the importance of having diverse learning resources that enable multiple approaches to understanding content:

> *"When there are videos, readings, examples, and activities, I can choose what works for me and study in my own way."*

Academics recognised that course design must intentionally scaffold SDL, particularly in the early stages of a module. One academic, A3, explained:

> *"We design activities in a way that gradually builds independence from guided tasks to more independent tasks as students' progress."*

This demonstrates a developmental approach to SDL, where autonomy is nurtured through phased scaffolding rather than assumed. A1 emphasised the importance of aligning assessments with SDL principles, stating:

> *"To foster SDL, assessments must require critical thinking, application, and reflection, not just reproduction of content."*

Instructional designers strongly emphasised the deliberate design of ODeL modules to promote SDL. One designer highlighted the critical role of the community of inquiry (CoI) in shaping SDL-enabling course structures:

> *"We design with the teaching, social, and cognitive presences in mind so that students can engage meaningfully and direct their learning" (ID2).*

This illustrates that effective SDL is supported through a balanced integration of elements, promoting autonomy without isolation. The designer further stressed the need for user-friendly course entry points that reduce barriers to self-directed engagement:

> *"The welcome page is the front desk of the module; it must invite students in and guide them on how to navigate and learn independently" (ID1).*

In addition, designers described how embedding interaction fosters SDL:

> *"Activities that create social presence make students feel part of a community, which strengthens their willingness to explore and learn independently" (ID1)*

4.4.4 Theme 4: Peer Learning Communities as Catalysts for Self-Directed Learning in ODeL

The findings indicate that peer-led learning communities play an essential role in nurturing self-directed learning (SDL) among ODeL students by providing emotional, academic, and motivational support that supplements formal institutional structures. This theme responds directly to Research Question 1.4.2.4: “What support systems nurture self-directed learning among ODeL students?” and Objective 1.5.2.4: “Establish which support systems nurture SDL among ODeL students.”

The evidence shows that peer networks, often self-initiated and informally organised, function as powerful catalysts for SDL by promoting collaboration, accountability, resource sharing, and social connection. These are often absent in isolated distance learning contexts. Students consistently described peer groups as indispensable to their SDL journeys, particularly in overcoming feelings of isolation and sustaining motivation. S7 said the following:

> *“The interaction from Telegram groups has helped me a lot.”*

S2 highlighted the practical academic benefits of these platforms:

> *“Study groups on WhatsApp help me more than forums. We share summaries, push each other, and it keeps me on track.”*

These accounts show that peer-led platforms provide a more immediate, relatable, and active learning environment than formal institutional forums. Students also noted that peers enabled them to plan and organise their learning. S8 said:

> *“I like to start assignments when they open so that I don’t feel like I have six assignments to do all at once.”*

For others, peer support compensated for challenging home environments, as one student disclosed (SR1):

> *“At home, it is hard to concentrate, but I associate with those who understand better, and they help me.”*

Another added that these communities foster personal growth and self-regulation (S6):

> *“Pushing my assignments earlier … has shaped me to be an accountable person.”*

Together, these quotes illustrate the powerful role of peer-learning communities in activating SDL behaviours such as planning, discipline, persistence, and emotional resilience.

Academics acknowledged the significance of peer learning communities, recognising them as essential for reducing transactional distance and enhancing student agency in SDL. A2 remarked:

> *"When students learn together, they build confidence, exchange ideas, and it strengthens their independence because they don't always rely on the lecturer."*

A3 stressed the value of collaborative knowledge construction, noting:

> *"Peer learning is powerful in ODeL because students can explain concepts to each other in ways that make sense to them, and that promotes self-directed learning."*

These insights align with social constructivist principles, which posit that learning is socially co-constructed. They also highlight the recognition among academics that peer learning strengthens autonomy, academic confidence, and self-regulated learning.

Instructional designers strongly affirmed the value of peer support but noted that institutions need to integrate and structure these communities more formally. One designer highlighted that peer networking is a key component of social presence that enhances persistence and engagement:

> *"Students create WhatsApp and Telegram groups to support each other, and that is where a lot of learning and motivation actually happens" (ID2).*

The designer further acknowledged the need to bring these informal communities closer to the learning environment:

> "*We can create student lounges and discussion spaces inside the module so that peer interaction happens within the learning platform where we can guide and support it" (ID1).*

These insights demonstrate that instructional designers view peer support not as a peripheral practice but as a core design consideration, intentionally embedded in the course architecture to cultivate SDL.

The findings highlight that peer learning communities emerged as a valuable source of emotional, academic, and motivational support, often exceeding the immediacy and relevance of formal institutional support. They foster self-directed learning by promoting collaboration, accountability, problem-solving, and a sense of belonging, thereby effectively reducing student isolation, a well-documented barrier in ODeL. Academics value these communities for cultivating independent thinking and co-constructed knowledge. At the same time, instructional

designers highlight the need to integrate them into institutional platforms to strengthen social presence and guide peer engagement. The findings suggest that ODeL institutions should legitimise and scaffold peer learning communities rather than viewing them as informal student-led initiatives. They could consider formalising peer mentoring and structured collaborative spaces, recognising student networks to create a socially connected learning environment.

4.4.5 Theme 5: Factors Influencing Self-Directed Learning in ODeL Environments

This theme examines how internal and external factors shape students' ability to engage in self-directed learning (SDL) within an Open, Distance and e-Learning (ODeL) environment. While individual traits such as motivation, time management, and digital skills play a role, participants strongly emphasised that institutional and infrastructural conditions are equally decisive in enabling or constraining SDL. The findings reveal that SDL is not an individual endeavour, but a systemic outcome influenced by student readiness, digital literacy, and the reliability of institutional structures. This theme responds to Research Question 1.4.2.1: "What factors influence students' self-directed learning in an Open, Distance and e-Learning environment?" and aligns with Objective 1.5.2.1: "Explore factors influencing students' self-directed learning in an Open, Distance and e-learning environment."

Students frequently highlighted digital literacy as a critical internal factor that determines the ease or difficulty of navigating ODeL learning systems. S6 explained:

> *"It is the digital literacy factor that plays a huge role."*

This points to uneven preparedness among ODeL students: some enter with confidence in using digital tools, while others struggle with basic navigation and platform use. Academics emphasised that SDL cannot be viewed as an isolated student responsibility; it must be institutionally supported. A1 observed :

> *"We believe that student readiness and robust support systems are key to fostering self-direction."*

A designer noted:

> *"Incorporating user feedback continuously helps refine the SDL experience" (ID2).*

Beyond student readiness, participants highlighted how institutional platforms such as myUnisa either facilitate or hinder SDL. SR2 acknowledged its usefulness:

> *"MyUnisa … gives me access to study materials, announcements, and assignment submissions all in one place."*

However, system instability frequently disrupted learning. SR4 said:

> *"The system crashes all the time."*

Similarly, frustrations with access and institutional responsiveness were raised. S8 stated:

> *"MyUnisa is often difficult to log into … stressful when assignments are due."*

Infrastructure challenges extended beyond university systems. Load shedding and lack of data or connectivity were persistent barriers. As S7 explained:

> *"Loadshedding is another big issue. If you don't have data or backup power, you lose time, and that affects your confidence."*

Academics affirmed that such inequities intensify disparities among students. A2 noted:

> *"Some students come with strong self-regulation skills, but others really struggle to adapt to the ODeL model. The digital divide is still a big reality."*

Instructional designers further stressed the importance of user-friendly design and scaffolded learning pathways. One designer explained:

> *"When modules are designed with clear navigation and scaffolded tasks, students engage more independently. Poorly structured courses discourage autonomy" (ID1).*

Collectively, the data demonstrate that the interaction between individual attitudes and external conditions shapes SDL in ODeL. Students who possess digital confidence and stable access to technology thrive. In contrast, those impacted by LMS disruptions, data costs, and electricity instability are more likely to fall behind, regardless of motivation.

The findings under this theme imply that ODeL institutions should treat their digital platforms as core learning infrastructure rather than content storage spaces. Consistent system reliability, straightforward navigation, and timely communication are foundational to promoting student autonomy. Furthermore, explicit digital skills training should be integrated into orientation programmes and maintained throughout students' learning journeys, particularly for those from rural and disadvantaged contexts.

The findings highlight that SDL success requires a systemic approach that strengthens both students' capacity and institutional capability. Improving platform usability, designing low-bandwidth content, providing data-saving features, and embedding digital literacy into the curriculum are essential for cultivating SDL across diverse student groups. Only when individual readiness and supportive learning environments intersect can SDL flourish in ODeL settings.

4.4.6 Theme 6: Institutional and Systemic Support (Strengths and Deficits)

The findings demonstrate that institutional and systemic support acts as both a catalyst and a constraint to self-directed learning in ODeL contexts. While students, academics, and instructional designers acknowledged available support services that enable independent learning, they simultaneously highlighted systemic gaps that undermine student autonomy. This theme aligns with Research Question 1.4.2.4: “What support systems nurture self-directed learning among ODeL students?” and Research Question 1.3.2.5: “What factors influence the practice of SDL in the ODeL environment?” It also relates to Objective 1.5.2.4: “Establish which support systems nurture SDL among ODeL students.”

Students consistently described institutional support structures as essential “safety nets” that sustain learning when self-directed efforts fall short. A student, S4, affirmed the importance of accessible support:

> *“The university’s support services bridge the gap when I'm stuck, such as when I cannot login into myUnisa.”*

Support was also experienced as emotionally reassuring. S7 noted:

> *“The support system here makes me feel less isolated.”*

Mentorship and e-tutoring emerged as particularly valuable mechanisms for fostering academic clarity, confidence, and motivation. S3 expressed appreciation for this personalised guidance:

> *“E-tutoring sessions have given me a clearer direction in my studies.”*

Institutional strengths also included access to digital learning resources and flexibility of study. S5 highlighted this advantage:

> *“Access to digital resources ensures I can study at any time.”*

However, while the support structures exist, their inconsistent effectiveness was a recurring concern. Delayed responses weakened the purpose of support, especially during urgent academic moments. S9 expressed frustration:

> *"The study guides are clear, but when you need urgent help, emails take too long to be answered."*

Academics acknowledged inefficiencies in student support systems, particularly the lack of responsiveness and weak communication channels. A3 commented:

> *"The call centre is almost dysfunctional; students are better off contacting lecturers directly."*

Others stressed the need for deliberate institutional investment in capacity and infrastructure to sustain SDL. An academic, A8, emphasised leadership responsibility:

> *"To promote self-directed learning, there needs to be a concerted effort from leadership to invest in infrastructure and support programmes."*

A1 reiterated the need for continuous training and equitable access to digital tools:

> *"Data and laptops are essential. Continuous training should be provided."*

Instructional designers extended this critique by stressing the importance of integration and system reliability. One noted:

> *"A seamless blend of academic resources within the platform is crucial for promoting SDL" (ID2).*

The same participant cautioned that system failures discourage autonomy:

> *"When systems crash at critical times, it erodes student trust and discourages them from taking responsibility for their learning" (ID2).*

Digital literacy was highlighted as a systemic necessity, not a privilege. ID1 argued:

> *"Digital literacy training must be institutionalised, not optional" (ID1).*

Beyond university-level support, the findings pointed to wider systemic gaps, including limited government support for distance students. S7 said:

"*There is minimal support from government or school authorities, which leaves us to fend for ourselves."*

The findings indicate that while institutional support can enhance SDL by providing guidance, resources, and emotional reassurance, systemic weaknesses, such as unreliable platforms, delayed communication, and unequal digital access, undermine students' autonomy. This duality shows that support services encourage SDL, yet institutional deficits restrict its full realisation. Strengthening SDL in ODeL, therefore, requires a holistic approach that integrates mentoring and academic advising into course design, improves infrastructure reliability and responsiveness, and embeds ongoing digital literacy training for diverse students. Ultimately, SDL flourishes when institutional and systemic support is reliable and student-centred, and diminishes when it is fragmented or under-resourced.

4.4.7 Theme 7: Teaching Strategies and Technological Tools that Promote Self-Directed Learning

The findings suggest that teaching strategies and technology serve as key enablers of self-directed learning (SDL) in ODeL environments. While institutional systems and course design provide the foundational structure, the everyday practice of SDL is primarily shaped by how lecturers teach, the digital tools students can access, and the peer networks they mobilise. This theme responds to Research Question 1.4.2.2: "Which course design and teaching practices support the development of self-directed learning in the ODeL university?" and aligns with Objective 1.5.2.2: "Determine course design and teaching practices that support the development of SDL in the ODeL university."

The findings reveal that students value interactive, flexible teaching approaches because these methods strengthen motivation and understanding of content. The use of digital tools was particularly appreciated. A B.Ed student, S1, emphasised the role of multimedia-rich teaching in sustaining engagement:

"Interactive video lectures keep me engaged and let me set my own pace."

Immediate feedback was also viewed as essential for guiding independent learning pathways. S2 explained:

"Online quizzes give me instant feedback that guides my study."

Beyond formal teaching, peer-driven learning spaces emerged as a significant part of SDL. WhatsApp and Telegram groups, in particular, enabled collaborative meaning-making and mutual accountability. S2 noted:

“Study groups on WhatsApp help me more than forums. We share summaries, push each other, and it keeps me on track.”

However, students also highlighted that peer reliance often compensated for slow or limited lecturer responsiveness. S6 expressed frustration in this regard:

“Sometimes lecturers don’t reply on forums, and you feel abandoned, so I rely on classmates instead.”

Academics acknowledged that SDL is strengthened when teaching explicitly promotes independent thinking, reflection, and inquiry. A2 said:

“*Interactive modules stimulate critical thinking and independent exploration.”*

Another, A5, described using reflection prompts to deepen metacognition:

“We try to embed reflective questions in assignments to make students think beyond just content reproduction.”

Instructional designers echoed this view, noting that intentionally structured learning pathways support student agency. One explained:

“We focus on creating interactive, self-guided modules that encourage exploration” (ID1).

They also recognised the future-shaping potential of advanced technologies, while cautioning against widening inequalities. ID2 said:

“AI-driven tools and simulations could promote students' autonomy, but affordability and data costs remain barriers” (ID2).

Together, these perspectives illustrate that interactive pedagogy, reflective practice, and engaging technologies enhance SDL, while peer networks often serve as compensatory support where lecturer responses are considered too slow.

Despite these benefits, the findings also make clear that technological inequity undermines students’ ability to exercise self-direction, especially for those in rural or under-resourced contexts. S1 described the access barrier:

“Poor network since I’m from a rural area … not all of us … afford internet cafes.”

Data costs were a recurring obstacle. S3 expressed:

> *"Having not enough data is one of the technological challenges."*

Lack of devices further restricted students' capacity to work independently, as S6 shared:

> *"Since I don't own a laptop, I find it hard to type the whole essay on the phone, and lecturers do not accept screenshots for assignments submission."*

Unexpected expenses added strain, such as the cost of private connectivity. S7 said:

> *"… their wifi is not working … now I have to buy more data, which I did not budget for."*

Academics recognised these structural barriers, acknowledging that SDL requires enabling tools, not only motivation. A1 said:

> *"Data and laptops. Therefore, continuous training should be provided."*

The findings show that while innovative teaching strategies such as inquiry-based activities, multimedia instruction, quizzes, and reflective tasks can strengthen SDL, their effectiveness depends on equitable access to technology. When access is unequal, SDL becomes uneven and exclusionary. This highlights the need for ODeL institutions to simultaneously enhance digital pedagogy and ensure technological equity through low-bandwidth tools, capacity-building for academics, device-loan or data-support initiatives, and embedded digital-skills training. SDL thrives when teaching practice, technology, and peer support systems align, but remains inequitable when technological barriers persist.

4.4.8 Theme 8: Personal Attributes – Motivation, Self-Efficacy, and Time Management

The findings illustrate that self-directed learning in ODeL contexts is strongly shaped by students' personal attributes, particularly intrinsic motivation, self-efficacy, and time management skills. The data suggest that while ODeL environments offer flexibility and autonomy, these same features demand high levels of self-regulation. This theme responds to Research Question 1.4.2.3: "What personal attributes and motivations improve self-directed learning in ODeL environments?" and aligns with Objective 1.5.2.3: "Explore the personal attributes and motivations that improve SDL in ODeL environments." The findings show that intrinsic motivation plays a central role in sustaining engagement, especially in the absence of face-to-face accountability structures. S1 acknowledged the internal drive needed to cope with a flexible learning model:

“I need strong self-motivation to keep up with the flexible schedule.”

Many students highlighted goal-setting as a strategy that enables focus and persistence. S3 commented:

“Setting personal goals has helped me stay focused on my studies.”

Self-efficacy – belief in one’s capacity to learn and succeed – emerged as another critical personal attribute. S5 shared:

“Believing in my abilities has made a huge difference in my learning journey.”

Despite this, several students acknowledged the tension between self-discipline and procrastination. S4 explained:

“I often rely on my self-discipline to overcome procrastination.”

The findings also reveal that home environments often impose competing demands that weaken students’ self-regulation capacity. A participant, S8, explained the lack of family understanding for study commitments:

“When you’re at home, family doesn’t always understand you’re studying. You get disturbed a lot.”

Time management emerged frequently as a barrier to sustained SDL. S1 admitted:

“Time management is my biggest challenge. I always end up rushing before deadlines.”

Academics reinforced the importance of internal attributes as determinants of SDL success. A1 noted the foundational role of confidence:

“Self-efficacy is at the heart of independent learning.”

Another academic, A3, emphasised a strong link between time management and academic performance:

“*We observe that time management skills correlate with academic success.”*

Academics also highlighted goal-setting as a differentiator between students who thrive and those who remain dependent on external prompts. A7 said:

“Those who set their own learning goals succeed more, but we see many who rely heavily on us for constant reminders.”

Instructional designers, however, cautioned that course design sometimes assumes a level of readiness that not all students possess. One pointed out:

> *"We design for diverse students, but some materials still assume high levels of independence, which not all students have (ID1)."*

The findings show that motivation, self-efficacy, and time management are critical yet unevenly developed personal resources that shape SDL in ODeL. Students with strong self-belief and discipline remain committed, whereas those with weaker self-regulation struggle with procrastination, stress, and disengagement, particularly in unsupportive home environments. This highlights that SDL cannot be assumed but must be intentionally developed through time-management and goal-setting activities, assistance with self-regulation through the structure of the curriculum, and ongoing academic and psychosocial coaching. ODeL institutions can enable more students to become confident, independent, self-directed learners by cultivating these skills and designing courses that recognise diverse life circumstances.

4.4.9 Theme 9: Influence of Demographic Factors

The findings suggest that demographic characteristics, including age, prior educational experience, geographic location, and digital literacy, significantly shape students' readiness and ability to engage in self-directed learning (SDL) within ODeL environments. These demographic factors influence how easily students transition into independent learning and determine the type of support they require. This theme responds to Research Question 1.4.2.5: "What demographic factors influence the development of self-directed learning abilities in an ODeL setting?" and aligns with Objective 1.5.2.5: "Uncover the demographic factors that influence the development of self-directed learning abilities in an ODeL setting." The findings reveal a contrasting pattern across age groups. Many younger students reported confidence and ease in navigating digital platforms owing to their familiarity with technology. S1 said:

> "*Being younger, I'm more comfortable navigating digital tools."*

However, this digital fluency did not always translate into SDL maturity. A participant, S5, acknowledged that despite being tech-savvy, personal discipline remained a challenge:

> "Because I grew up with technology, I find the online system easier, but I struggle with self-discipline."

By contrast, older or returning students often demonstrated perseverance, planning, and stronger time management skills, but they encountered greater anxieties and barriers when adapting to digital tools and online systems. An older student, S4, reflected:

“I had to quickly learn new technologies because of my age gap.”

S10 reiterated the need for digital support during their transition:

“As an older student, I manage my time well, but I needed help with digital tools at first.”

Academics confirmed that digital literacy acts as a decisive factor in determining SDL success in ODeL contexts. A1 stressed:

“Digital literacy is a key differentiator in student success in ODeL.”

Academics also emphasised the need for differentiated support tailored to demographic diversity. A4 explained:

“*We tailor our support services to meet the needs of diverse age groups.”*

Geographical location further shaped SDL capacity, particularly for rural students. Limited access to data, connectivity, and digital infrastructure negatively influenced independent learning. One academic, A8, highlighted these inequities:

“*Students in rural provinces are at a serious disadvantage of data costs, and connectivity impacts their ability to be self-directed.”*

The findings reveal that SDL readiness varies across demographic groups. Younger students often demonstrate digital fluency but lack sustained self-regulation, while mature and returning students show resilience and organisational skills yet require focused digital literacy support. Rural students, regardless of age, face structural barriers that limit their autonomy. These insights indicate that SDL development cannot follow a one-size-fits-all model; instead, differentiated and tiered support is needed to address diverse student profiles. This might take the form of slight differences in input during orientation, more personal scaffolding for younger students and more technological scaffolding for older students. Rural students should receive the most scaffolding. Ensuring equitable SDL outcomes requires strategies that enable digital natives, mature students, and rural students to access the support necessary to succeed in ODeL environments.

4.4.10 Theme 10: AI-Enabled Language and Learning Support

The findings indicate that artificial intelligence (AI) tools such as ChatGPT and QuillBot are emerging as influential support mechanisms that enhance students’ self-directed learning in ODeL environments. Students reported using AI primarily to clarify difficult concepts, scaffold their understanding, refine language use, and strengthen academic writing. Importantly, participants did not view AI as a replacement for independent work but rather as a

supplementary cognitive and linguistic support. This theme relates to Research Question 1.4.2.1: “What factors influence students' self-directed learning in an Open, Distance and e-Learning environment*?”* and aligns with Objective 1.5.2.1: “Explore factors influencing students' self-directed learning in an Open, Distance and e-Learning environment.”

The findings reveal that students regard AI as a learning partner that facilitates comprehension and autonomy. One participant, S1, described AI as a tool that enhances conceptual understanding:

> *“Yes, when I don't understand, AI helps me by clarifying things … the aim is to learn, not plagiarise.”*

Students also noted that AI supports idea generation, improves cognitive processing, and simplifies complex topics. S2 explained:

> *“I used ChatGPT to get quick explanations of difficult topics, help with writing assignments, and generate study ideas.”*

For many students, particularly those who found academic writing challenging, AI served as a valuable language support tool. S3 admitted:

> *“I used Quillbot to help me with grammar in my assignments.”*

Similarly, AI strengthened academic language proficiency for multilingual students who use English as an additional language. S4 highlighted:

> *“Because English is my second language … AI assists me in adjusting my words for academic accuracy.”*

Another student, S5, emphasised the linguistic benefits gained through AI exposure to well-structured academic English:

> *“Using AI gives me examples of proper grammar, sentence structure, and vocabulary.”*

At the same time, students demonstrated awareness of the risk of over-reliance and the need for personal voice and understanding. S8 remarked:

> *“It uses advanced language, which I often prefer to simplify to show my own understanding.”*

The findings show that students were aware of the dangers of over-reliance on AI and used it for specific and limited tasks, such as explaining concepts and correcting grammatical errors in writing. AI is a particularly valuable linguistic scaffold in the context of students for whom

English is a second or third language. However, the danger of over-reliance on AI is ever-present, and something that universities are still grappling with. Its use promotes independent learning, but overuse may weaken critical thinking and the effort required to understand and apply concepts across different contexts. This emphasises the need for AI literacy and ethical-use training that promotes responsible learning rather than dependency. When applied reflectively, AI can meaningfully enhance SDL in ODeL by fostering autonomy, language development, and academic confidence.

4.4.11 Theme 11: Mechanisms to Ensure Students Become Self-Directed Students

The findings demonstrate that self-directed learning in ODeL contexts does not emerge organically; instead, it requires intentional, systematic, and sustained institutional and pedagogical support. Participants across all groups emphasised that SDL must be explicitly cultivated through targeted mechanisms that build students' autonomy, confidence, and self-regulation. This theme responds to Research Question 1.4.2.6: “What mechanisms can be put in place to ensure that students become self-directed students in an ODeL institution?” and aligns with Objective 1.5.2.6: “Recommend mechanisms that can be put in place to ensure that students become self-directed students in an ODeL institution.” Students consistently highlighted the importance of early and structured induction as a foundation for independent learning. One student, S1, explained how orientation strengthened their ability to navigate the ODeL environment:

> “*Orientation sessions helped me understand how to navigate the system independently.”*

Participants further emphasised the need for ongoing mentorship to sustain motivation and accountability throughout the learning journey. S3 said:

> *“If we had regular mentorship check-ins, it would keep us motivated and focused.”*

Students also valued adaptive learning technologies as mechanisms for personalising learning pathways and supporting SDL. S5 noted:

> *“The adaptive learning technologies allow me to learn at my own pace.”*

Academics echoed these views and stressed that SDL must be explicitly taught, rather than assumed. A8 remarked:

> *“We need to explicitly teach self-directed learning strategies, not just content.”*

Another, A1, emphasised that the foundation of SDL begins at induction:

“A comprehensive orientation is crucial for setting expectations of self-directed learning.”

Instructional designers reinforced the importance of embedding technological and pedagogical supports that stimulate autonomous learning behaviours. One designer shared:

“Embedding technologies and feedback loops has transformed the way students interact with content” (ID2).

Another designer proposed the use of personalised learning dashboards to enhance ownership and self-monitoring:

“Personalised dashboards that show progress and suggest next steps would empower students to take charge of learning (ID1).”

The findings show that structured, layered support systems, such as orientation, mentorship, digital literacy training, and adaptive technologies, are essential for developing SDL in ODeL environments. Orientation prepares students for the SDL environment, while mentorship, feedback, and personalised analytics help sustain self-monitoring and motivation. Without these supports, many students, especially those transitioning from teacher-centred schooling, struggle to meet the autonomy demands of ODeL. This highlights the need to intentionally embed SDL development into policy, curriculum design, and student support. A systematic approach is called for that integrates orientation, mentoring, and adaptive learning tools. It is this combination of structure and personalisation that will help make SDL more equitable and sustainable.

4.5 CHAPTER SUMMARY

This chapter presents the key research findings from the analysis of data generated through virtual focus group discussions with final-year B.Ed students and semi-structured interviews with academics and instructional designers in a South African ODeL university. The purpose of the chapter was to explore how self-directed learning (SDL) is understood, experienced, and supported within an ODeL environment. The findings were organised into themes aligned with the study’s research questions. The findings show how students interpret SDL, the personal attributes that enable or hinder autonomous learning, and the role of curriculum design, teaching practices, technology, and peer support in shaping SDL development.

The chapter has also illustrated how demographic factors, such as age, prior educational background, and geographical location, influence SDL readiness and engagement. Further, it examined the growing role of AI tools as emerging supports for academic writing and conceptual understanding. The findings demonstrated that SDL in ODeL does not occur

naturally or automatically but is shaped by the interplay between student agency, institutional practices, and system-level conditions. While students recognised the importance of motivation, self-discipline, time management, and self-efficacy, the chapter showed that supportive course design is also needed, along with interactive pedagogy and reliable digital platforms. The support offered to students should be somewhat differentiated according to the needs of the different demographic groups, and feedback should be timeous and not delayed. All participants emphasised that structured orientation, mentorship, digital skills training, and adaptive technological tools are needed to ensure that SDL is nurtured throughout the student journey. The chapter has therefore provided a comprehensive account of the factors that enhance or constrain SDL in ODeL and has laid the foundation for the discussion, recommendations, and framework proposed in the following chapter.

CHAPTER 5: DISCUSSION OF FINDINGS

5.1 INTRODUCTION

This chapter interprets the findings reported in Chapter 4 in relation to the research aim, objectives, and questions. The study asked how an Open, Distance and e-Learning (ODeL) university can effectively promote self-directed learning (SDL) to strengthen students' engagement and academic success. Two complementary lenses frame the discussion: Self-Directed Learning Theory conceptualises SDL as a learnable process in which individuals diagnose their needs, set goals, find and evaluate resources, choose strategies, and appraise outcomes (Knowles, 1975). Transactional Distance Theory explains how the pedagogical "distance" experienced by students depends on the balance between course structure, dialogue and student autonomy, rather than on geography alone (Moore, 1997; Moore & Kearsley, 2012). Read together, these theories locate SDL at the interface between the students and the learning system. Autonomy flourishes where design is straightforward and flexible, dialogue is timely and purposeful, feedback is formative, communities are visible, and infrastructure is reliable and affordable. Where any of these conditions weaken, even highly motivated students struggle to sustain self-regulation. The following discussion focuses on the eleven themes from Chapter 4 and connects them to research to offer a more personal, context-aware view of SDL in the South African ODeL environment. This environment is defined by digital inequality, platform fragility, and the real experiences of load shedding and inconsistent connectivity.

5.2 DISCUSSION OF FINDINGS

5.2.1 Theme 1: Understanding of Self-Directed Learning (SDL) in ODeL

The findings indicate that students, academics, and instructional designers share a common conceptual understanding of self-directed learning (SDL) in the ODeL environment, although with different emphases. Students predominantly framed SDL as taking responsibility for one's learning, independently managing time, and engaging with course materials without constant lecturer oversight. Academics extended this interpretation by stressing that SDL involves a systematic process of setting learning goals, planning study activities, monitoring progress, and evaluating outcomes. Instructional designers highlighted that SDL is not merely an individual student's attribute but a skill that must be enabled through intentional curriculum design. While all stakeholder groups acknowledged SDL as a core competency for ODeL success, the degree of emphasis on institutional scaffolding varied: students focused on

autonomy, academics emphasised metacognition, and designers foregrounded pedagogic design.

This theme reveals that although SDL is widely recognised as essential in ODeL, it is not consistently translated into practice. Students' conceptualisations reflected a behavioural focus on independence and personal responsibility, which, while valuable, captures only one dimension of SDL. Such interpretations risk equating SDL with academic isolation rather than empowered self-regulation. Academics, however, recognised SDL as a structured and reflective process that requires deliberate cognitive engagement, strategic thinking, and self-evaluation. Instructional designers' perspectives show that SDL depends significantly on environmental and pedagogical conditions. These differing emphases suggest that SDL is often treated as a student's assumed disposition rather than as a competency that requires intentional development through guided practice, feedback, and structured learning opportunities. The interpretation reinforces that SDL cannot be reduced to an attitude of independence but must be supported as a developmental process influenced by curriculum design, learning support mechanisms, and institutional culture. Unless explicitly taught and scaffolded, SDL becomes aspirational rather than attainable, particularly for students entering higher education from teacher-dependent schooling systems.

Current literature affirms the multifaceted nature of SDL and the need for deliberate development of SDL skills, particularly in online learning environments where direct instructor presence is limited. SDL is recognised as a cyclical process that integrates metacognition, motivation, and behavioural regulation (Kim et al., 2023). Researchers emphasise that SDL is a critical determinant of student success in digital and distance learning contexts, as students must navigate asynchronous content and sustain engagement independently (Choi et al., 2023). Studies observe that students frequently misinterpret self-directed learning (SDL) as studying in isolation or merely accessing materials independently, which can lead to superficial engagement rather than deep learning (Panadero, 2017; Maphalala & Nkosi, 2025). Van Zyl (2023) argue that SDL requires structured facilitation, including explicit teaching of study strategies, reflective tasks, and feedback to ensure equitable uptake. Importantly, literature from the Global South highlights that SDL in ODeL must be viewed through a contextual and socio-economic lens, as structural barriers such as digital inequality and limited academic support constrain students' ability to enact SDL competencies even when these are conceptually understood (Oosthuysen et al., 2024). This study extends these debates by showing that, although stakeholders articulate SDL in alignment with scholarly definitions, its enactment is shaped by institutional responsiveness, infrastructural stability, and the quality of

course design. These factors are often underemphasised in SDL research, which is predominantly framed by Euro-American contexts.

Self-Directed Learning Theory (SDLT) conceptualises SDL as a progressive, learner-driven process involving the diagnosis of learning needs, the formulation of goals, the identification of resources, the implementation of strategies, and the evaluation of outcomes (Knowles, 1975). SDLT positions the learner as an active agent in their learning journey, yet emphasises that self-directedness is *learned* rather than innate. Recent adaptations of SDLT argue for structured and scaffolded development of SDL skills in digital learning environments, acknowledging that students require guided induction and ongoing support to develop metacognitive and regulatory abilities (Kim et al., 2023). The findings align with SDLT in recognising that students must be supported to develop autonomy through explicit teaching and practice rather than be left to “self-direct” without preparation.

Transactional Distance Theory (TDT) highlights the fact that the psychological and communication space between students and instructors is shaped by a balance of structure, dialogue, and learner autonomy (Moore, 1997). TDT posits that high structure with limited dialogue increases transactional distance, making it more difficult for students to develop SDL capabilities. Conversely, well-designed learning environments characterised by clear structure, guided interaction, and sustained dialogue reduce transactional distance, thereby creating conditions under which self-directed learning can emerge more effectively (Moore & Kearsley, 2012). A study highlights that course design and teaching presence must intentionally reduce transactional distance to support SDL development, particularly for novice online students (Shearer et al., 2020). This study reinforces both SDLT and TDT by demonstrating that students’ understanding of SDL is constrained or enabled by the design of the learning environment, institutional presence, and the availability of structured dialogue. Together, SDLT and TDT illustrate that SDL is co-constructed through learner agency, pedagogical design, and facilitated interaction rather than emerging solely from learner disposition.

5.2.2 Theme 2: Learner Dispositions and Mindsets for Self-Directed Learning in ODeL

The findings demonstrated that students' dispositions and mindsets, particularly intrinsic motivation, confidence, a growth-oriented mindset, and emotional resilience, play an essential role in shaping students’ capacity to engage in self-directed learning (SDL) in Open, Distance and e-Learning (ODeL) contexts. Students who approached ODeL with a proactive orientation, a belief in their ability to succeed, and a willingness to persist through challenges were more likely to engage effectively with autonomous learning activities. Conversely, students who had

fixed mindsets and lower confidence in their academic abilities, or who experienced heightened anxiety in independent learning environments, exhibited reduced engagement. Their learning behaviours were more reactive than proactive, and they tended to rely excessively on peers and lecturers for direction.

This finding suggests that SDL is not merely a cognitive or skill-based process but is deeply rooted in the student's psychological stance toward learning. Students with a growth-oriented disposition appeared more willing to experiment with learning strategies, take initiative, and reflect on their progress. These are behaviours that strengthen self-regulation and autonomy over time. Emotional resilience emerged as a particularly significant factor in the ODeL context, where students routinely encounter isolation, delayed feedback, and digital disruptions. When students adopt an adaptive mindset and perceive setbacks as temporary and manageable, they demonstrate greater capacity to recalibrate their learning strategies and maintain engagement despite challenges. Thus, mindset and disposition are catalytic elements that influence whether students embrace or resist the self-directed learning demands of ODeL environments.

These findings align with research that indicates that success in self-directed learning is more strongly associated with students' mindsets and motivational orientations than with technical skills alone. In particular, a growth mindset has been shown to predict persistence, self-regulation, and academic resilience, especially in online and digitally mediated learning environments where learners must manage uncertainty and independent learning demands (Yeager & Dweck, 2020). In the South African ODeL context, Mpungose (2020) similarly observed that students' self-belief, mindset, and emotional coping resources significantly influence whether they thrive or struggle in distance-based autonomous learning. An international study further confirms that mindset-oriented and metacognitive interventions, including metacognitive awareness training and structured reflective practice, strengthen students' readiness for self-directed learning by enhancing planning, monitoring, and evaluative capacities (Al Mamun & Lawrie, 2024). Therefore, the present findings corroborate emerging literature that conceptualises SDL as a holistic construct that intertwines cognitive strategies with motivation, emotional resilience, and a positive attitude.

The findings align with Self-Directed Learning Theory (SDLT), which positions student readiness (including motivation, attitudes, and self-concept) as a precursor to successful SDL (Knowles, 1975; Garrison, 1997). Recent SDL research reinforces that SDL readiness is not a fixed attribute but can be nurtured through structured support that gradually enhances students' confidence, self-belief, and metacognitive capacity (Kim et al., 2023; Song & Hill,

2007). The prominence of students' dispositions in this theme, therefore, supports SDLT's assertion that internal motivation must be strengthened for students to progress in autonomous learning.

According to Transactional Distance Theory (TDT), personal disposition influences how students experience and respond to the psychological "distance" inherent in ODeL environments. Students with growth-oriented and confident dispositions are more likely to tolerate reduced dialogue, adapt to limited structure, and manage ambiguity, thereby mitigating transactional distance (Moore, 1997; Falloon, 2020). Conversely, students with low confidence or fixed mindsets perceive greater communicative and cognitive distance, which can amplify feelings of isolation or dependence on lecturer intervention. This theme reinforces recent re-interpretations of TDT, which argue that psychological variables such as mindset and self-belief shape the student's subjective experience of transactional distance and thus affect their agency in navigating autonomous learning (Kebritchi et al., 2023). Strengthening students' dispositions is therefore theoretically aligned with both SDLT and TDT, as it builds internal capacities that empower students to manage autonomy, simultaneously reducing the negative effects of distance in ODeL systems.

5.2.3 Theme 3: Curriculum and Course Design Strategies that Foster Self-Directed Learning in ODeL

The findings highlighted that curriculum and course design play a pivotal role in fostering or constraining students' self-directed learning (SDL) in an Open, Distance and e-Learning (ODeL) environment. Students responded positively to courses that were clearly structured and enriched with multimodal learning resources that supported varied learning preferences. Academics and instructional designers emphasised the value of intentional scaffolding and formative feedback in enabling SDL. Well-designed ODeL modules that offered flexible navigation, clear expectations, interactive elements, and opportunities to apply what has been learned appeared to cultivate student engagement and confidence. Conversely, poorly structured courses with unclear navigation, limited guidance, and weak feedback mechanisms were perceived as hindering SDL and causing confusion.

This theme indicates that SDL flourishes when course design does not leave students to navigate learning independently from the outset but offers a structured pedagogical process that gradually enhances students' responsibility. This means that course design has to balance flexibility with clarity; students benefit from choice and self-pacing, yet also need guidance, and a visible pedagogical presence to prevent cognitive overload. The progression from guided to autonomous learning is most effective when students are supported through explicit

instructions and ongoing formative feedback. These findings challenge the misconception that SDL means reduced teacher involvement; instead, they demonstrate that structured learning design is a critical enabler, not an inhibitor, of student autonomy in ODeL contexts. Effective SDL-supportive design thus involves careful curation of content, clarity about learning pathways, and opportunities for students to practise self-regulation within a supportive framework.

These findings strongly align with current studies emphasising that online curriculum design must intentionally promote self-regulation and students' agency. A study shows that ODeL students require a structured learning architecture, particularly in the early stages of their programmes, to develop the cognitive and metacognitive skills necessary for SDL (Martin et al., 2020). Research confirms that scaffolded course design enhances student autonomy and persistence in virtual learning environments (Bawa, 2020). The value of multimodal content, such as short instructional videos, podcasts, infographics, and interactive quizzes, has been widely recognised for its capacity to personalise learning and accommodate diverse learning needs (Huang et al., 2023). The current findings extend the literature by demonstrating that, in the South African ODeL context, instructional design that intentionally addresses bandwidth constraints, reliance on mobile phones, and infrastructural disruptions such as load shedding is critical for sustaining self-directed learning (SDL). This aligns with recent South African research showing that digital inequality, particularly limited access to reliable connectivity, devices, and data, continues to shape students' ability to engage effectively in online learning environments (Czerniewicz et al., 2020, Mateko, Dowelani & Sinamano, 2025). These studies further highlight that poorly adapted digital learning designs can increase cognitive strain and deepen existing inequities for digitally marginalised students, thereby undermining meaningful participation and autonomous learning.

In addition, empirical evidence supports the notion that formative feedback embedded within course design strengthens students' self-monitoring and self-regulation, both of which are central components of self-directed learning (Nicol & Macfarlane-Dick, 2006; Wisniewski, Zierer, & Hattie, 2020). The findings also affirm research on the effectiveness of gradually shifting responsibility from teacher-led to student-led tasks, thereby cultivating students over time (Hammond, 2021).

This theme directly reinforces Self-Directed Learning Theory (SDLT), which posits that SDL develops through a structured sequence involving self-assessment, goal-setting, resource identification, strategy implementation, and reflection (Knowles, 1975; Garrison, 1997). Effective course design in ODeL settings provides the scaffolding students need to move

through these phases with increasing independence. Recent SDLT literature emphasises that learning environments must be intentionally designed to facilitate metacognitive engagement and reflection (Kim et al., 2023). The current findings, therefore, extend SDLT by showing that in digital learning environments, pedagogical design, not only students' readiness, determines whether SDL is practically achievable.

Transactional Distance Theory (TDT) also provides a useful interpretive lens for this theme. Moore (1997) contends that autonomy in distance education is shaped by the interplay among structure, dialogue, and students' autonomy. The findings show that well-structured course design reduces transactional distance by providing clarity and accessibility, creating clear pathways for engagement, and thereby enabling students to exercise autonomy without feeling abandoned. Recent reinterpretations of TDT highlight the need to embed structure and meaningful dialogue in course design to prevent psychological distance and disengagement (Falloon, 2020; Kebritchi et al., 2023). By incorporating interactive elements, regular formative feedback, and a visible teaching presence, course design narrows the transactional distance and empowers students to take control of their learning. This theme confirms the importance of balancing structure and freedom, core tenets of both SDLT and TDT, to cultivate SDL in ODeL environments.

5.2.4 Theme 4: Peer Support and Learning Communities as Catalysts for Self-Directed Learning in ODeL

The findings reveal that peer support and learning communities, formal and informal, play an important role in nurturing self-directed learning in ODeL contexts. Students relied heavily on peer networks, often using platforms such as WhatsApp and Telegram to clarify concepts and sustain motivation. These peer-driven spaces served as both academic and emotional support systems, enabling students to hold one another accountable and persist despite systemic challenges or limited lecturer responsiveness. Academics and instructional designers acknowledged the centrality of peer learning communities and emphasised that structured, institutionally supported peer engagement contributes meaningfully to SDL development.

This finding indicates that SDL in ODeL is not solely an individual endeavour but a socially mediated process. Peer learning communities act as catalysts that reinforce students' agency, confidence, and resilience, as evidenced in S2's comments (see Section 4.4.4). These peer groups help mitigate the effects of the physically and psychologically distanced environment characteristic of ODeL. In the absence of frequent lecturer interaction, students turned to peers as primary sources of immediate feedback and emotional solidarity. This highlights that collective forms of self-direction are crucial for sustaining engagement, particularly when

institutional support is delayed or inconsistent. Peer networks effectively become extensions of the learning environment, distributing cognitive load, reducing transactional barriers, and shaping positive learning identities. Thus, SDL is strengthened when students have access to collaborative spaces that support both the academic and socio-emotional dimensions of self-regulation.

These findings resonate strongly with studies that emphasise the role of peer interaction and social presence in promoting SDL in online and distance education environments. Drawing on the socially shared regulation of learning framework, studies show that peer learning supports motivation and deeper cognitive processing in digital contexts when learners collectively plan, monitor, and regulate their learning, including motivational and emotional dimensions, through sustained interaction and mutual accountability (Järvelä & Hadwin, 2013; Järvelä et al., 2018) Peer-supported environments provide “safe” spaces for questioning, sharing diverse perspectives, and practising metacognitive skills, which are critical for SDL (Borup, West, & Graham, 2020). Studies conducted in African ODeL settings further confirm that informal peer communication channels such as WhatsApp offer culturally responsive and context-specific support that boosts SDL (Mpungose, 2020). Research also shows that socially shared regulation, in which students collectively monitor and evaluate their learning, predicts stronger academic outcomes than purely individual self-regulation in online spaces (Panadero & Järvelä, 2015). The current findings extend this literature by highlighting that in South African ODeL settings, informal peer communities are not auxiliary but essential, particularly where institutional systems remain strained by large enrolments and infrastructural instability.

Furthermore, evidence supports the view that structured peer-mentoring programmes, peer-facilitated study groups, and collaborative learning spaces embedded within LMS platforms strengthen SDL readiness (Garrison & Vaughan, 2008; Martin et al., 2020). The findings reinforce arguments for institutionalising peer learning opportunities rather than leaving them to emerge informally, as formal integration ensures equitable access and accountability for quality interactions.

SDL research emphasises that self-directed learning is not an isolated or purely individual activity, but one that is socially situated and supported through interaction and collaboration. This perspective aligns closely with Self-Directed Learning Theory (SDLT), which recognises that although SDL is self-initiated, it is fostered through engagement with learning communities that help develop the skills, dispositions, and confidence associated with autonomous learning (Garrison, 1997; Garrison & Vaughan, 2008). Research further highlights the importance of socially shared regulation and collaborative meaning-making in strengthening learners’

planning, monitoring, and reflective capacities, particularly in digitally mediated learning environments (Panadero, 2017). The findings thus affirm SDLT's evolving view that SDL is both individually and socially constructed, in which students internalise self-regulatory behaviours through interaction, modelling, and peer feedback.

Transactional Distance Theory (TDT) provides an equally compelling lens for interpreting this theme. Peer learning communities reduce transactional distance by increasing dialogue, providing immediate, meaningful interaction that compensates for limited lecturer–learner engagement (Moore, 1997; Falloon, 2020). Where institutional dialogue is delayed, peer interaction substitutes as a vital form of "unofficial dialogue" that bridges cognitive gaps and sustains emotional connection. Studies re-conceptualise TDT to include peer-to-peer dialogue as a critical factor in minimising psychological distance and strengthening students' autonomy (Kebritchi et al., 2023). Thus, the presence of active peer learning communities directly supports the balance of dialogue and autonomy that TDT argues is necessary for effective distance learning.

5.2.5 Theme 5: Ecosystem Factors Influencing Self-Directed Learning in ODeL

The findings demonstrated that SDL in an ODeL environment is profoundly shaped by ecosystem conditions that extend beyond the students' personal attributes. The usability and reliability of institutional learning platforms, digital literacy levels, access to devices and affordable data, and broader socio-technical aspects such as load shedding and unstable connectivity influenced students' ability to self-direct. While students with stronger digital competence and supportive home environments navigated ODeL with relative confidence, those affected by infrastructural instability struggled to sustain motivation and meet academic expectations. Academics and instructional designers affirmed that SDL is not an isolated cognitive act but a systemic outcome arising from the intersection of students' readiness, infrastructural access, and institutional capability.

This finding show that SDL in ODeL cannot be conceptualised solely as an individual responsibility; it is contingent on the broader learning ecology. The capacity to self-pace, self-monitor, and engage autonomously presupposes a functional digital ecosystem where platforms are accessible, support is timely, and disruptions are minimal. When institutional systems are unreliable or inaccessible, the transactional burden increases, as students are forced to waste time solving technical problems rather than conceptual ones. In this way, an unreliable system erodes student self-efficacy. Conversely, when platforms operate seamlessly and support is responsive, students can invest their cognitive energy in planning, monitoring, and evaluating their learning, thereby enacting SDL more effectively. This

interpretation highlights that infrastructural equity is foundational to SDL: autonomy is only meaningful when students have an equitable opportunity to exercise it.

The findings align closely with a growing body of research emphasising that environmental affordances and structural conditions shape SDL. Song and Hill's (2007) integrated model of SDL in online environments argues that SDL is made possible by a combination of students' characteristics, learning context, and design elements, an insight reaffirmed by studies in digitally unequal contexts (Kim et al., 2023). International research from the COVID-19 and post-COVID era similarly highlights that platform usability, reliable access, and digital skills are preconditions for persistence in online learning (Gillett-Swan, 2017; Hodges et al., 2020).

African and South African research reinforces these findings. Persistent digital inequities characterised by data poverty, limited device ownership, and inconsistent institutional platforms continue to disproportionately disadvantage ODeL students (Mpungose, 2020; Oosthuysen et al., 2024). Studies show that loadshedding, high data costs, and unreliable LMS infrastructure hinder continuous engagement, weaken self-regulation, and amplify withdrawal tendencies among rural and working-class students (Reddy Moonasamy & Naidoo, 2022). Research also highlights that digital literacy is no longer an optional competency, but a core academic skill required for meaningful participation in higher education (Kebritchi et al., 2023). The current findings extend this literature by evidencing how ecosystem fragility undermines SDL even among highly motivated students, emphasising the need to view SDL as an emergent property of a supportive system rather than a static student trait.

This theme provides a critical extension of Self-Directed Learning Theory (SDLT) by reinforcing that student autonomy cannot develop independently of environmental and structural enablers. SDLT identifies student readiness motivation, self-concept, and metacognitive skills as essential to SDL (Knowles, 1975; Garrison, 1997). An SDL study, however, argues that readiness is relational and shaped by contextual factors (Kim et al., 2023). The findings align with this recent interpretation, demonstrating that without equitable access, help with digital literacy, and a stable learning infrastructure, students' SDL readiness is constrained. SDLT is therefore affirmed but expanded: in ODeL settings, the institution bears responsibility for creating the enabling conditions within which SDL can emerge and be sustained.

Transactional Distance Theory (TDT) supports and helps explain these findings. Moore (1997) posits that transactional distance, the psychological and communicative space between student and institution, increases when structure is rigid and dialogue is limited. The findings show that unreliable systems, inaccessible platforms, and limited connectivity widen the

transactional distance by inhibiting dialogue and impeding navigation. Reinterpretations of TDT emphasise the role of digital infrastructure and usability as determinants of transactional distance in modern ODeL (Falloon, 2020; Kebritchi et al., 2023). When the infrastructure functions well, structure and dialogue are strengthened, enabling autonomy to develop. When infrastructure fails, autonomy becomes burdensome rather than empowering. Thus, this theme reinforces that SDL cannot be mandated without simultaneously narrowing transactional distance through reliable systems.

5.2.6 Theme 6: Institutional and Systemic Support (Strengths and Deficits)

The findings revealed that institutional and systemic support plays a dual role, enabling or constraining self-directed learning within the ODeL environment. While students valued available institutional support structures such as e-tutoring, study guides, online library services, and flexible learning platforms, they also reported persistent systemic weaknesses. These included delayed academic and administrative responses, inconsistent communication channels, an unreliable learning management system, and limited access to digital resources. Academics and instructional designers echoed these concerns, emphasising the need for coherent institutional coordination and investment. The evidence suggests that institutional support is essential for nurturing SDL, but fragmented or unreliable support systems undermine students' motivation and confidence.

This theme demonstrates that SDL is profoundly shaped by the extent and quality of institutional support provided. In an ODeL environment, where physical distance already reduces immediate access to academic guidance, institutional presence acts as a stabilising force, supporting students' efforts to remain academically engaged. When institutional support is visible and responsive, it functions as a scaffold that reinforces students' capacity to navigate challenges independently. This is evident in S7's comment under Section 4.4.6. However, when support systems are unresponsive, inconsistent, or difficult to access, students experience heightened cognitive and emotional burden; their self-efficacy declines, and they are more likely to disengage or rely on peers in ways that may not always be productive. The interpretation emerging from this theme is that institutional support systems must be proactive, integrated, and student-centred to cultivate SDL meaningfully. Autonomy in ODeL is strengthened not by reducing support, but by delivering *the right kind of support.* The right kind of support enables students to build confidence and competence to self-direct over time.

The findings align with research showing that institutional support structures – academic, technological, administrative, and psychosocial – are critical determinants of SDL in distance

education. Studies emphasise that in online learning, institutional presence complements teaching presence by signalling care and accountability (Garrison & Vaughan, 2008; Martin et al., 2020). Research demonstrates that prompt feedback significantly enhances students' academic engagement (Bawa, 2020). In contrast, institutional inefficiencies, such as delayed responses or unreliable LMS platforms, increase student anxiety and intensify feelings of isolation. These emotional reactions will inevitably reduce SDL (Hodges et al., 2020).

South African research reinforces these findings, highlighting how system fragilities such as inadequate technical support negatively impact student autonomy, particularly for first-generation and rural ODeL students (Reddy Moonasamy & Naidoo, 2022; Oosthuysen et al., 2024). Research demonstrates that the development of self-directed learning (SDL) in digital and online environments depends on institutionally embedded digital literacy support, rather than on optional or ad hoc interventions. Studies show that when digital competence development is systematically integrated into curricula and learning support structures, students are better able to regulate their learning, engage autonomously with digital resources and sustain participation across diverse learning contexts, thereby promoting greater equity and long-term sustainability in SDL development (van Laar et al., 2019; Hatlevik et al., 2022). The current findings support these observations, illustrating that systemic shortcomings are affecting students in ODeL environments. While many ODeL institutions recognise the need for comprehensive student support, their implementation does not always match their aspiration. The findings confirm the importance of institutional coherence, responsiveness, and infrastructure as preconditions for effective SDL in ODeL environments.

The findings under this theme reinforce the principles of Self-Directed Learning Theory (SDLT) by demonstrating that students' autonomy develops most effectively in environments where structured support gradually moves the responsibility for managing tasks to the students. SDLT asserts that learning autonomy evolves through guided processes in which students are supported in setting goals, locating resources, selecting strategies, and evaluating outcomes (Knowles, 1975; Garrison, 1997). Over time, this support can reduce as the student gains more autonomy and ability to self-manage. The literature on SDL supports this notion, emphasising that institutions must create *enabling ecosystems* that support students' cognitive, emotional, technological, and social needs as they build SDL capacity (Kim et al., 2023). The findings, therefore, confirm that institutional support is not contradictory to SDL but foundational to its development.

Transactional Distance Theory (TDT) also supports and explains these findings. Moore (1997) argues that transactional distance increases when structure is rigid and dialogue is limited.

When institutional systems are unreliable or communication is slow, transactional distance widens, making it harder for students to practise SDL. Conversely, a strong institutional presence, manifested through timely support, reduces transactional distance by strengthening both structure and dialogue. Recent reinterpretations of TDT emphasise that institutional infrastructure and support services form part of the “dialogue layer” that reduces student uncertainty and enhances agency in online environments (Falloon, 2020; Kebritchi et al., 2023). This theme, therefore, confirms that supportive, reliable institutional ecosystems are integral to narrowing transactional distance and empowering students to self-direct effectively in ODeL contexts.

5.2.7 Theme 7: Teaching Strategies and Tools that Promote Self-Directed Learning in ODeL

The findings show that teaching strategies and technological tools significantly shape students’ capacity for self-directed learning in ODeL environments. Students responded positively to interactive teaching approaches that encouraged active engagement, reflection, and problem-solving. Micro-lectures, inquiry-based tasks, reflective prompts, and frequent low-stakes assessments enable students to monitor their learning and take responsibility for their academic progress. Technological tools, including learning management system (LMS) features, multimedia resources, quizzes with instant feedback, and peer communication, further supported self-direction. However, inequitable access to devices, data, and advanced digital tools constrained the effective use of these strategies, particularly for resource-poor students.

This theme suggests that SDL is strengthened when teaching strategies adopt a student-centred and dialogic orientation that places students at the centre of knowledge construction. ODeL students require more than content delivery; they need pedagogical experiences that cultivate comprehension and metacognitive awareness. Teaching strategies that promote inquiry and give prompt feedback facilitate the development of SDL by encouraging students to think critically and refine their learning strategies. Technological tools amplify this effect. With the right digital tools and the support to use them optimally, students develop into self-paced students who take responsibility for their studies because they feel adequately supported. Currently, the benefits of innovative tools are unevenly distributed: for digitally marginalised students, many options are denied, mainly due to unreliable connectivity and high data costs.

The findings align with research demonstrating that interactive, reflective, and feedback-rich teaching strategies enhance students' autonomy and self-regulation. Studies show that

inquiry-based learning and problem-based activities promote deep engagement and metacognition, which are key processes underpinning SDL (Martin et al., 2020; Lim et al., 2022). Empirical evidence also confirms that formative feedback delivered through frequent mini-assessments strengthens self-monitoring and persistence in online environments (Nicol & Macfarlane-Dick, 2006). The importance of multimedia and micro-content is well supported, with studies showing that short videos and interactive media enhance comprehension and foster student engagement in digital learning spaces (Huang et al., 2023).

The equity dimension raised by students is also strongly reflected in current literature. Research conducted during and beyond the COVID-19 period highlights that access to devices, affordable data, and stable connectivity remain persistent barriers to equitable engagement with technology-enhanced pedagogies (Czerniewicz et al., 2020; Mabidi, 2024). These structural inequalities continue to shape students' participation in digitally mediated learning environments, particularly in contexts where socio-economic disparities and infrastructural constraints limit meaningful access and engagement. Researchers caution that high-tech innovations may inadvertently widen learning gaps if they do not account for students' differing digital realities (Oosthuysen et al., 2024). African studies advocate mobile-first, low-bandwidth, and offline-enabled design to support SDL (Maciel & Salinas, 2022). The current findings support these insights, showing that teaching strategies and technological tools must be implemented equitably to avoid reproducing disadvantage among vulnerable student groups.

This theme closely aligns with Self-directed Learning Theory, which posits that students develop autonomy through engagement in goal-setting, resource selection, and self-evaluation (Knowles, 1975; Garrison, 1997). Teaching strategies that make use of problem-based learning and encourage the exploration of a range of solutions directly support these SDL processes. SDL research also emphasises the crucial role of reflective and formative learning activities for scaffolding metacognition and student agency (Kim et al., 2023).

Transactional Distance Theory (TDT) further illuminates the findings. Moore (1997) argues that the balance of structure, dialogue, and autonomy determines the psychological distance students experience in distance learning contexts. Teaching strategies that promote dialogue and feedback reduce transactional distance and foster a sense of connection, which is highly motivating for students. Studies on TDT highlight the role of technology in sustaining dialogue and reducing perceptions of distance in virtual learning (Falloon, 2020; Kebritchi et al., 2023). The findings affirm that when teaching strategies and tools are thoughtfully integrated, balancing guidance with flexibility, they reduce transactional distance and enable students to

exercise autonomy while still being supported. However, when inequitable access prevents students from using these tools, transactional distance widens for marginalised groups, undermining SDL.

5.2.8 Theme 8: Personal Attributes – Motivation, Self-Efficacy, and Time Management

The findings indicate that personal attributes, particularly intrinsic motivation, self-efficacy, and time management, play a decisive role in shaping students' ability to engage in self-directed learning in ODeL contexts. Students with strong internal motivation, a belief in their ability to succeed, and effective time-management strategies demonstrated a capacity to plan, monitor, and complete learning tasks independently. Conversely, students who struggled with motivation, lacked confidence, or were unable to manage their time effectively often experienced procrastination and stress, as evident in S1's comment under Section 4.4.8. Academics affirmed that these personal attributes underpin successful SDL, while instructional designers highlighted that many ODeL course designs still assume high levels of readiness that not all students possess.

This theme illustrates that personal attributes operate as internal enablers or inhibitors of SDL and significantly influence how students respond to the autonomy and flexibility inherent in ODeL. Intrinsic motivation acts as the driving force that sustains engagement in the absence of external pressure. Self-efficacy shapes how students perceive and approach academic challenges; students who believe they can succeed are more likely to persist and practise self-discipline on their learning journey than those who lack self-efficacy. Effective time-management strategies enable students to navigate ODeL's asynchronous learning demands and competing responsibilities at home, work, and in their families. Without these attributes, students may experience cognitive overload and a sense of disorientation within the self-paced learning model. The interpretation emerging from this theme is that SDL development depends not only on institutional and pedagogical supports but also on fostering internal competencies that enable students to progress in ODeL environments.

The findings align with extensive research confirming that motivation, self-efficacy, and time management are critical determinants of SDL and online learning success. Studies show that intrinsic motivation enhances persistence, effort regulation, and deep engagement in digital learning environments (Deci & Ryan, 2000; Martin et al., 2020). Self-efficacy has been identified as a strong predictor of self-directed learning behaviours, shaping students' willingness to engage in complex tasks, persist through difficulty, and regulate their learning strategies effectively (Zimmerman, 2002; Schunk & DiBenedetto, 2020). Research further demonstrates that effective time management is a key factor distinguishing high-performing

online students from those who experience overwhelm and disengagement (Wang et al., 2022).

African and South African studies support these findings, showing that time-management difficulties, emotional pressures, and low academic self-belief disproportionately affect ODeL students who juggle family responsibilities, full-time work, and constrained study environments (Czerniewicz et al., 2020; Reddy, Moonasammy, & Naidoo, 2022). It is worth noting that while motivation and self-efficacy are often framed as personal traits, they are in fact malleable and develop through structured learning experiences and supportive feedback (Panadero, 2017). Thus, the findings regarding personal qualities do not negate those regarding institutional support. Both are clearly needed. Students' personal attributes cannot be divorced from contextual realities: even motivated students struggle to regulate their learning when digital instability, domestic disruption, or limited academic support erodes their emotional resilience.

This theme directly connects to Self-Directed Learning Theory (SDLT), which emphasises that SDL readiness begins with internal student characteristics (Knowles, 1975; Garrison, 1997). The findings confirm SDLT's assertion that self-efficacy and internalised motivation are foundational for initiating and sustaining SDL processes. Recent SDL research has expanded this view by emphasising the development of these qualities, arguing that structured pedagogical and institutional interventions can enhance students' motivation and self-regulatory capacity (Kim et al., 2023). The findings support this evolution of SDLT by showing that personal attributes are not static preconditions but dynamic competencies that must be cultivated throughout the students' journey.

Transactional Distance Theory (TDT) also offers explanatory insights into the role of personal attributes. Moore (1997) posits that as transactional distance increases – through reduced dialogue or unclear structure –greater student autonomy and regulation are required. Students with higher self-efficacy and motivation are better equipped to manage the challenges associated with reduced guidance. In contrast, those with weaker personal attributes perceive greater psychological distance and are more likely to disengage. Studies on the application of TDT highlight that emotional and motivational factors shape how students navigate autonomy in online learning (Falloon, 2020; Kebritchi et al., 2023). The findings, therefore, confirm that strengthening motivation, self-efficacy, and time-management competence reduces the negative effects of transactional distance.

5.2.9 Theme 9: Influence of Demographic Factors on Students' Capacity for Self-Directed Learning in ODeL

The findings showed that demographic factors, including age, prior educational experience, geographical location, socio-economic background, and level of digital literacy, significantly influence students' capacity to develop self-directed learning skills in ODeL environments. Younger students tended to demonstrate greater digital fluency and comfort with online platforms, but often lacked the discipline required for sustained independent learning. In contrast, older and returning students generally exhibited stronger self-discipline, perseverance, and time management, yet faced greater challenges in adapting to digital tools. Students residing in rural or low-income contexts faced acute barriers owing to data costs, limited connectivity, power outages, and limited access to devices. These demographic variations shaped how students experienced SDL, creating uneven pathways to autonomous learning.

Findings under this theme highlight that SDL readiness is not uniform across student populations but is socially patterned by demographic realities. They suggest that SDL is not an inherent trait that develops naturally with age or academic level, but is influenced by students' prior technology experiences, access to resources, and exposure to self-directed or inquiry-based learning models. The finding reveal the importance of recognising students' diversity when designing SDL-supportive ODeL systems. Younger, digitally fluent students may appear prepared but often require scaffolding for self-regulation and academic discipline, while more mature students may be highly motivated and disciplined yet need targeted support to build confidence in navigating digital learning spaces. For students from rural and disadvantaged socio-economic backgrounds, contextual constraints, not lack of motivation, are often the primary barriers to SDL. Therefore, SDL development requires a differentiated, context-responsive approach that acknowledges demographic inequalities and provides support to all student groups.

The findings are consistent with the literature, which shows that demographic variables strongly shape SDL outcomes in online learning. Studies confirm that younger students' familiarity with technology does not automatically translate into effective SDL capacity (Huang et al., 2021). In contrast, research indicates that while mature students often demonstrate stronger autonomous learning dispositions, they may encounter heightened digital anxiety and gaps in digital competence when transitioning into ODeL environments, particularly where prior exposure to formal digital learning has been limited (van Deursen, Helsper, & Eynon, 2020). Research in African contexts further reveals that rurality, socio-economic status, and

prior schooling conditions affect students' transition into SDL-oriented learning systems (Czerniewicz et al., 2020; Reddy Moonasamy & Naidoo, 2022). Digital inequality remains one of the most persistent structural barriers to SDL in the Global South. Several authors have found that access to devices, data, and stable connectivity continues to shape students' capacities to self-direct (Oosthuysen et al., 2024).

Recent studies advocate for differentiated and context-responsive student support frameworks that move beyond one-size-fits-all approaches, emphasising the need to tailor orientation, digital skills development, and academic support to diverse student profiles (Czerniewicz et al., 2020; Mphuthi, Ngoveni & Mphahlele, 2025). The findings of this study support and extend this body of work by demonstrating that demographic differences intersect with broader contextual inequalities such as socio-economic status, digital access, and prior educational experiences, thereby shaping distinct self-directed learning (SDL) needs not only at entry into ODeL but throughout students' academic journeys. These insights reinforce emerging calls for decolonially responsive ODeL models that recognise intersectionality and are grounded in the lived realities of students in the Global South.

This theme provides important theoretical reinforcement and expansion for Self-Directed Learning Theory (SDLT). SDLT recognises that SDL readiness is influenced by individual characteristics such as motivation, self-concept, and previous learning experiences (Knowles, 1975; Garrison, 1997). The findings affirm this assumption but extend SDLT by showing that demographic factors systematically shape readiness and access to SDL opportunities. Researchers argue that SDLT must explicitly account for socio-cultural, economic, and educational inequalities that influence SDL capacity, especially in digital and distance contexts (Kim et al., 2023). The current findings support this recent extension, demonstrating that SDL development is not simply an individual psychological journey but also a socio-structural process that requires differentiated scaffolding.

Transactional Distance Theory (TDT) provides further insight. Moore (1997) explains that transactional distance widens when students lack appropriate support or face barriers to engagement. The findings show that demographic factors amplify transactional distance: students without digital familiarity, those living in rural areas, and those with limited educational preparation experience greater psychological and structural distance. Research that includes references to TDT emphasises that transactional distance is not experienced uniformly across student groups and that disparities in digital access and readiness create uneven levels of perceived distance (Falloon, 2020; Kebritchi et al., 2023). Therefore, reducing transactional distance requires differentiated pedagogical strategies, targeted digital-literacy support, and

equity-focused institutional policies. This theme confirms that demographic-responsive interventions are essential to narrowing transactional distance and promoting equitable SDL in ODeL settings.

5.2.10 Theme 10: AI-Enabled Language and Learning Support

The findings indicate that Artificial Intelligence (AI) tools such as ChatGPT, QuillBot, Grammarly, and other generative or assistive technologies have become important support mechanisms that enhance students' self-directed learning in ODeL environments. Students used AI tools to clarify complex concepts, improve academic writing, consolidate understanding, and generate study ideas, particularly in modules requiring academic English proficiency. AI-based tools provided immediate cognitive and linguistic scaffolding, enabling students to interpret academic material and refine language use independently. However, students also recognised the risk of over-reliance on AI, emphasising the need to maintain their own voice and understanding. Academics and instructional designers agreed that AI can support SDL when used ethically and critically, and emphasised the importance of AI literacy education.

This finding signals a paradigm shift in how ODeL students self-direct, with AI emerging as a supplementary "learning partner" that provides on-demand personalised guidance. AI-supported learning reduces reliance on lecturers for concept clarification and allows students to take control of their learning. It supports cognitive autonomy by helping students interpret content, practise academic writing, and receive formative feedback at any time; functions that traditionally relied on human support. It can also provide a measure of emotional support by reducing the sense of overload and overwhelm that can easily arise among first-generation and rural students. Moreover, AI strengthens linguistic confidence among multilingual students who may struggle with academic English, offering models of academic tone, structure, and vocabulary.

However, the finding also raises a cautionary note: AI's empowering effects can reverse if students outsource cognitive processing to AI rather than using it to enhance their own thinking. Ethical, reflective, and critical use of AI is therefore essential to ensure that it strengthens SDL rather than undermining the development of independent cognitive skills. The interpretation reflects that AI does not replace SDL; instead, it becomes a mediating tool that can accelerate or impede SDL depending on how students are guided to use it.

This finding aligns with a growing body of research demonstrating that AI-enabled tools enhance student learning and writing when used responsibly (Kasneci et al., 2023; Lin et al.,

2023; Zawacki-Richter et al., 2019). Research also highlights the value of AI in supporting multilingual students who face linguistic barriers in higher education (Huang et al., 2023). AI-enabled and analytics-driven learning systems have been shown to support metacognitive development by prompting learners to reflect, analyse their actions, iterate strategies, and self-correct, processes that closely align with self-directed learning (SDL) (Bannert, Reimann, & Sonnenberg, 2021). However, the literature warns that AI misuse can weaken critical thinking and creativity if institutions do not embed ethical AI-literacy training and assessment designs that reward authentic learning (Cotton et al., 2023; Rudolph et al., 2023). The findings extend the literature by showing that in ODeL contexts, AI serves not only as an academic enhancer but also as an emotional support tool that reduces anxiety and uncertainty, especially for first-generation and multilingual students navigating independent learning. This indicate the need for universities to frame AI as a scaffold rather than a shortcut.

This theme contributes to evolving interpretations of Self-Directed Learning Theory (SDLT) in the digital age. SDLT emphasises that students must take responsibility for identifying learning needs, selecting strategies, and evaluating outcomes (Knowles, 1975; Garrison, 1997). AI-enabled tools support these SDL stages by helping students define gaps in understanding, seek resources independently, and receive iterative feedback to evaluate progress. Recent SDL research recognises that digital tools can enhance autonomy and metacognition when used to support, not replace, cognitive engagement (Kim et al., 2023). The findings extend SDLT by demonstrating that AI now functions as a mediating cognitive scaffold that can amplify SDL readiness when institutions teach students to use it ethically and strategically.

Transactional Distance Theory (TDT) also explains the findings under this theme. Moore (1997) explains that transactional distance increases when students lack adequate dialogue or feedback. AI reduces transactional distance by offering immediate, personalised feedback and explanations, functioning as an additional “dialogue layer” in the learning process. Many researchers argue that digital and AI-mediated feedback interactions should be considered part of the dialogue dimension that bridges psychological distance in online learning (Falloon, 2020; Kebritchi et al., 2023). When used responsibly, AI strengthens students' autonomy without increasing isolation because it supplements, rather than replaces, human interaction.

5.2.11 Theme 11: Mechanisms to Ensure Students Become Self-Directed Students in ODeL

The findings demonstrated that self-directed learning in ODeL does not emerge naturally but must be intentionally cultivated through systematic, structured, and ongoing institutional mechanisms. Participants across all groups highlighted the need for mandatory orientation

programmes focusing on SDL and digital literacy, ongoing mentorship and coaching models, embedded feedback loops, and the integration of adaptive learning technologies into curricula. These mechanisms were perceived as essential in building students' confidence, autonomy, and self-regulation over time. Instructional designers further emphasised the value of personalised learning dashboards and data-informed early alerts to support students' progress. Collectively, the findings emphasise that SDL development requires a *whole-of-institution, lifecycle-based* strategy rather than isolated interventions.

This theme highlights that SDL is a developmental process that unfolds across the student lifecycle and requires support structures that evolve as students advance. A once-off orientation is insufficient; rather, SDL-supportive mechanisms must be scaffolded from entry to graduation. Early interventions such as credit-bearing induction into SDL, digital skills training, and academic literacy lay the foundation for independent learning, while ongoing mentoring, feedback, and analytics-based nudges strengthen self-regulation throughout the study journey. Continuous support enables students to gradually internalise SDL behaviours. The interpretation emerging from this theme is that institutions should engineer environments in which SDL is not only encouraged rhetorically but operationalised structurally. SDL needs to become a shared institutional responsibility. Without integrated curriculum design, academic support systems, staff capacity development, and data-informed student success strategies, SDL may remain a struggle for most students.

These findings align closely with research that conceptualises SDL as a learnable, scaffolded competency rather than an innate skill. Research shows that explicit instruction in SDL strategies significantly improves students' autonomy and academic outcomes in online learning (Martin et al., 2020).

Emerging research also highlights the value of learning analytics and personalised feedback as mechanisms that empower students to monitor progress and adjust learning strategies, core aspects of SDL (Viberg et al., 2020). Research further demonstrates that early-alert systems and analytics-informed interventions can improve retention and support learner autonomy in large-scale online programmes by enabling timely, proactive support rather than delayed, reactive responses (Ifenthaler & Yau, 2020). Within African and Global South contexts, the literature stresses the importance of institutionalising support for self-directed learning (SDL), given persistent digital inequalities and students' uneven exposure to inquiry-based learning prior to university (Czerniewicz et al., 2020). The current findings extend these arguments by emphasising that SDL development must be intentional, systemic, and sustained.

Findings under this theme directly reinforce the core principles of Self-Directed Learning Theory (SDLT), which posits that students progress through stages of increasing autonomy (Knowles, 1975; Garrison, 1997). The mechanisms highlighted by participants, such as SDL-focused orientation, mentorship, adaptive technologies, and personalised dashboards, explicitly scaffold these stages. SDLT literature emphasises that structured learning environments and institutional strategies must *teach* and *reinforce* SDL skills, especially in online and distance contexts where students may lack immediate support (Kim et al., 2023). The findings affirm a point that has been made frequently in this study: that SDL cannot be assumed; it must be developed through pedagogy and institutional design.

Transactional Distance Theory (TDT) supports the findings in this regard. Moore (1997) asserts that transactional distance decreases when dialogue is frequent, structure is clear, and autonomy is scaffolded. Mechanisms such as ongoing mentoring, analytics-based feedback, and adaptive learning tools increase dialogue and guide students, thereby reducing psychological distance and preventing disorientation. Current reinterpretations of TDT argue that personalised learning support, students' dashboards, and data-informed interventions strengthen both structure and dialogue, enabling sustainable autonomy (Falloon, 2020; Kebritchi et al., 2023). This theme, therefore, confirms that purposeful institutional mechanisms are essential for maintaining optimal levels of structure and dialogue, so that autonomy can flourish without leaving students unsupported.

5.3 SYNTHESIS OF THE FINDINGS

The findings of this study demonstrate that self-directed learning (SDL) in Open, Distance and e-Learning (ODeL) is not a fixed personal trait but a systemic, developmental, and relational process shaped at the intersection of student agency, pedagogical design, institutional support, and equitable access.

Across the eleven themes, a clear pattern emerged: SDL flourishes in ODeL environments where structural, pedagogical, and social conditions align to form a coherent ecosystem of autonomy-supportive learning. This confirms and extends both SDL Theory and Transactional Distance Theory (TDT), showing that SDL is co-constructed through ongoing interaction between the students and their learning environment.

A central insight is that SDL is shaped by dynamic interactions between the student and the learning system, rather than residing solely within the individual. Personal attributes such as motivation, self-efficacy, and time management remain foundational to SDL, consistent with Knowles' (1975) humanistic conceptualisation of adult learning and Zimmerman's (2002) Self-regulated Learning Theory. However, this study shows that such dispositions are insufficient

on their own; for optimum SDL, institutional platforms must function well, dialogue must be sustained, and digital tools and skills must be accessible to all. In line with Song and Hill's (2007) ecological framing of SDL, the findings emphasise that SDL emerges when internal student capacities are reinforced by enabling external conditions. When those conditions weaken, even highly motivated students struggle to regulate their learning. This reflects South African ODeL realities, where autonomy is often constrained by persistent digital inequalities and systemic fragilities that limit students' capacity to engage fully in online learning (Czerniewicz et al., 2020; Reddy, Moonasammy, & Naidoo, 2022).

A second cross-cutting theme is the interdependence of pedagogy, presence, and support in cultivating SDL. Students demonstrated stronger self-direction when courses were clearly scaffolded, teaching presence was visible and responsive, and support structures were proactive rather than reactive. This aligns with the Community of Inquiry framework (Garrison et al., 2000), in particularly the role of teaching presence in enabling cognitive effort and student autonomy. According to TDT, dialogue and structure must be balanced: meaningful dialogue, through timely feedback, signposting, and mentoring, reduces transactional distance and empowers students to assume greater agency. Conversely, weak pedagogical presence and fragmented support widen transactional distance, pushing students toward dependence or disengagement. Thus, pedagogical presence acts as a critical mechanism for transferring autonomy to students.

Third, the findings highlight that equity and access are not peripheral concerns but prerequisites for SDL. To self-direct, students must be able to access digital learning spaces, afford data, and use platforms. Infrastructure, frequently viewed as an administrative matter, emerged as a central pedagogical determinant. Consistent with Hodges et al. (2020) and Veletsianos and Houlden (2020), the study confirms that technology and infrastructure directly mediate students' ability to exercise agency in digital environments. In the South African context, loadshedding, data costs, device scarcity, and LMS instability fundamentally shape SDL readiness and persistence. This moves the discourse beyond deficit-based interpretations of students "lacking motivation," showing instead that inequitable conditions produce inequitable autonomy.

Fourth, the synthesis reveals a shift towards relational and socially shared forms of SDL, where peer networks function as catalysts rather than impediments to independence. Students relied heavily on WhatsApp and Telegram groups for emotional support and problem-solving. Rather than undermining SDL, these peer-driven networks acted as social engines of self-regulation, aligning with Panadero & Järvelä's (2015) work on the socially shared regulation of learning. Peer support reduces feelings of isolation, compensates for institutional

communication gaps, and shrinks transactional distance by strengthening student–student dialogue when student–teacher dialogue is limited. These findings suggest that ODeL institutions should recognise and support peer learning ecosystems, rather than treating them as peripheral or informal.

Finally, the emergence of artificial intelligence (AI) tools has introduced a new dimension to SDL. Students used AI to clarify concepts, refine writing, and build confidence, consistent with global studies on AI in education (Kasneci et al., 2023; Lin et al., 2023). In this study, AI operated as a formative dialogue partner offering immediate feedback and assisting with academic writing, thereby reducing uncertainty and enhancing autonomy. However, students were conscious of the risk of over-reliance, signalling the need for institutional AI literacy frameworks that promote ethical, reflective, and cognitively engaged use. These findings suggest a conceptual extension of TDT: AI introduces a new form of "dialogue" that can reduce transactional distance, provided that it is pedagogically and ethically mediated.

This synthesis demonstrates that SDL in ODeL is a relational ecosystem comprising five interdependent dimensions: (i) students' capability and self-regulation, (ii) autonomy-supportive learning design and teaching presence, (iii) equitable digital infrastructure and access, (iv) developmental human guidance and mentorship, and (v) digitally enabled networks, including peer communities and AI-supported tools. SDL emerges when these dimensions align across the student learning journey. This holistic ecosystem framing provides the conceptual bridge to the ALIGN SDL Framework, which operationalises these insights into a model for system-wide SDL development in ODeL.

5.4 CHAPTER SUMMARY

This chapter has interpreted the findings through the lenses of Self-Directed Learning Theory, Transactional Distance Theory, and the Community of Inquiry framework. The discussion demonstrated that SDL is teachable, cultivable, and scalable when institutions combine clarity of design, relational presence, and equitable learning conditions. Effective SDL emerges when pedagogical practices emphasise inquiry, reflection, feedback, and progressive responsibility, and when a visible and responsive teaching presence supports these practices. The chapter highlighted that self-direction becomes actionable when students are equipped with self-regulatory strategies and are supported by the institutional ecosystem. Peer communities and AI tools, when legitimised, scaffolded, and ethically guided, serve as critical catalysts for understanding and motivation. Equally, the chapter emphasised that without dependable infrastructure, device and data access, and inclusive digital ecosystems, SDL remains unevenly distributed and risks privileging those with pre-existing advantages. The chapter

concludes that SDL in ODeL is both an individual and systemic outcome. It requires intentional pedagogical, technological, and institutional design to transform autonomy from an expectation into a realistic and equitable learning experience for all students.

CHAPTER 6: RECOMMENDATIONS, CONCLUSIONS, IMPLICATIONS, AND LIMITATIONS

6.1 INTRODUCTION

This chapter concludes the study. Building on the findings and the interpretive discussion in Chapter 5, the chapter discusses the implications of the evidence for students, academics, instructional designers, and institutional leaders in Open, Distance and e-Learning (ODeL) environments. The analysis remains anchored in Self-Directed Learning (SDL) Theory (Knowles, 1975) and Transactional Distance Theory (TDT) (Moore, 1997; Moore & Kearsley, 2012). Self-directed learning (SDL) emphasises that student autonomy does not happen automatically. It develops gradually as students learn to plan their studies, take action, and reflect on their progress. Transactional Distance Theory (TDT) highlights that autonomy can easily weaken when learning environments lack clear structure or when communication and support from lecturers are limited. In such situations, students tend to feel isolated or unable to manage their learning independently. In South Africa's unequal digital landscape, these insights converge on a demanding responsibility: we need to design systems that enable self-direction for all, not just the already advantaged.

6.2 SYNTHESIS OF FINDINGS

The study shows that self-directed learning (SDL) in ODeL is not an individual trait but a relational and systemic process shaped by the interaction between student agency, pedagogical design, institutional support, and equitable access.

SDL develops most effectively when personal factors such as motivation, self-efficacy, and time management are supported by enabling external conditions. These include reliable digital infrastructure, strong teaching presence, and proactive support systems. Consistent with SDL Theory, TDT, and the Community of Inquiry framework, the findings reveal that clear course design, responsive dialogue, and balanced structure reduce transactional distance and strengthen students' autonomy. Peer learning communities and AI tools further enhance SDL by providing social, cognitive, and linguistic scaffolding, although ethical use and over-reliance require monitoring. Therefore, SDL in ODeL functions as an ecosystem comprising five interconnected dimensions, as noted under Section 5.3: i) students' capabilities and self-regulation, ii) a supportive learning design and teaching presence, iii) equitable digital access, iv) human support and mentorship, and v) digitally enabled networks. SDL succeeds when these dimensions align; when any is weak, autonomy becomes fragile.

6.3 RECOMMENDATIONS

The recommendations arise directly from the study's findings and are addressed to practice, policy, and future research. Each cluster is traceable to the themes and to the SDL/TDT lenses articulated throughout the study.

6.3.1 Recommendations for Practice (Lecturers, Tutors, Instructional Designers)

A first priority is to normalise predictable communication rhythms: brief weekly signposts, rapid responses to substantive queries, and timely, forward-looking feedback on low-stakes tasks. Visible teaching presence reduces uncertainty and shrinks transactional distance (Garrison & Vaughan, 2008; Martin et al., 2020). Next, embed cycles of self-regulation, planning templates, and staged deadlines, along with micro-reflections, so that forethought, performance, and reflection become routine rather than aspirational (Zimmerman, 2002; Nicol & Macfarlane-Dick, 2006; Panadero, 2017). Design resources mobile-first, compressed, and downloadable, with essential content clearly signposted and enrichment clearly labelled; this aligns with the realities of intermittent connectivity and supports robust student–content interaction (Anderson, 2003; Koole, 2009; Laurillard, 2012).

Legitimise and lightly scaffold peer communities at the module level, mentor roles for senior students, integrity guidelines, and facilitator prompts, so that socially shared regulation is leveraged without displacing institutional responsibilities (Borup et al., 2012; Panadero & Järvelä, 2015). Finally, teach AI literacy as a study skill: establish ethical boundaries, citation norms, and strategies for adapting AI-generated language to one's voice, while aligning assessment with process, originality, and reflection (Lin et al., 2023; Kasneci et al., 2023).

6.3.2 Recommendations for Policy (Institutional and Sectoral)

Make an SDL-and-digital-literacy orientation credit-bearing and compulsory for all entrants, so students begin with shared routines for time management, help-seeking, and tool use (Garrison & Vaughan, 2008; Van Zyl, 2016). Set and publish service standards for help-desk response, forum moderation, and LMS uptime; monitor them transparently to rebuild institutional trust. Move access measures from pilots to policy: device-loan schemes, targeted data subsidies (especially for rural and low-income students), zero-rated access to core academic platforms, and campus/community Wi-Fi hubs (Veletsianos & Houlden, 2020). Use learning analytics humanely, as early alerts linked to mentorship rather than punitive messaging, in line with emerging ethical practice (Viberg et al., 2018). Include in programme review and quality assurance explicit checks for mobile-first design, clarity of wayfinding,

workload signalling, and feedback timeliness, all of which are known contributors to reduced transactional distance and stronger self-regulation.

6.3.3 Recommendations for Further Research

Undertake longitudinal studies on the effect of credit-bearing SDL orientation and structured mentorship on retention, throughput, and well-being, with attention to first-generation and rural students. Use design-based research to evaluate mobile-first, low-bandwidth course shells in constrained contexts, including cost-effectiveness. Combine LMS log data, artefact trails, and reflective interviews to map self-regulatory behaviour across assessment cycles (Winne, 2011). Finally, examine how AI-supported study interacts with language background and digital capital, and document assessment designs that preserve academic integrity while harnessing AI for formative dialogue (Zawacki-Richter et al., 2019; Lin et al., 2023).

6.4 A PROPOSED HOLISTIC FRAMEWORK TO ENHANCE SDL IN ODeL

6.4.1 The ALIGN SDL Framework Operational Cycle

A key contribution of this study is the conceptualisation of the ALIGN SDL Operational Cycle, which translates the five pillars of SDL into a dynamic, developmental framework through which students may progressively acquire, practise, and sustain self-directed learning within an ODeL environment. While the previous section outlined the pillars individually, their effectiveness lies in their integration into a coherent, iterative cycle. The cycle reflects the temporal unfolding of SDL across the student journey, beginning with foundational capability-building, moving through supported application and increasing autonomy, and culminating in sustained, independent self-regulation. In alignment with Self-Directed Learning Theory (SDLT) and Transactional Distance Theory (TDT), the cycle emphasises that SDL emerges through intentional design, relational support, and systemic facilitation rather than through passive expectation or students' personality alone.

6.4.1.1 Phase 1: Activating Self-Directed Learning Capability

The first phase of the cycle focuses on activating the student's SDL capacity at the point of entry into the ODeL system. This phase aligns with the "A – Autonomy & Learner Capability" pillar of the ALIGN Framework. It seeks to ensure that students begin their studies with the essential skills, mindsets, and tools required for self-directed learning. A compulsory, credit-bearing orientation is the core mechanism of this phase, providing structured induction into SDL skills, digital literacy, academic integrity, and the norms of online learning. This intentional

activation acknowledges that SDL is not an innate trait but a competency that requires explicit cultivation (Zimmerman, 2002; Panadero, 2017).

During this phase, students are introduced to the core elements of SDL, including setting goals, time-blocking, monitoring progress, proactively seeking support, and reflecting on learning strategies and outcomes. These skills mirror the three cyclical phases of Zimmerman's (2002) self-regulation model: forethought, performance, and self-reflection. The emphasis at this stage is on building academic confidence and helping students develop a sense of agency and ownership over their learning. SDLT informs this phase by framing learning as students-initiated, strategy-based, and reflective (Knowles, 1975; Garrison, 1997), while TDT emphasises the importance of early dialogue and clear structure to minimise uncertainty and anxiety during the transition into ODeL (Moore & Kearsley, 2012). Importantly, this activation phase also includes differentiated digital-literacy baseline assessments, enabling tailored micro-modules for students with varying levels of technological preparedness. This recognises the diversity of student backgrounds and is particularly relevant within the South African ODeL context, where disparities in digital experience and access mirror broader socio-economic inequalities (Czerniewicz et al., 2020; van Deursen & van Dijk, 2019). Baseline assessments facilitate early scaffolding, reducing initial transactional distance by providing clarity, predictability, and accessible pathways to competence. All of the activities that fall under this phase are designed to ensure that students do not enter the system at a disadvantage.

6.4.1.2 Phase 2: Learning Design and Academic Presence as Early Scaffolding

The second phase of the ALIGN SDL Operational Cycle centres on strengthening student engagement and confidence through purposeful course design and academic presence. This phase is the **"***L – Learning Design & Presence"* pillar and plays a critical scaffolding role as students begin to apply SDL skills in real course contexts.

The early weeks of ODeL study are crucial, as students often struggle to translate the things they have learned during orientation into practice. Therefore, modules are designed to provide structured yet flexible learning pathways that scaffold early learning behaviours. Mobile-first, low-bandwidth content, clear study paths, transparent workload signalling, and weekly signposts create a predictable learning rhythm that helps students plan and self-monitor. At this stage, teaching presence – through timely communication, interactive content, and formative feedback – reduces ambiguity and increases student motivation, narrowing transactional distance (Garrison et al., 2000; Salmon, 2014).

Low-stakes diagnostic activities, combined with formative feedback, build students' capacity for academic self-assessment and action, key components of SDL. This reflects Nicol and Macfarlane-Dick's (2006) model of feedback for self-regulation, which emphasises empowering students to internalise standards, monitor their work, and plan improvements. In alignment with SDLT, feedback shifts progressively from directive to reflective prompts, supporting students' transition from guided engagement to independent critical thinking (Ryan & Deci, 2020; Ajjawi, Kent Broadbent, Bearman, & Boud, 2022).

By the end of this phase, students should be demonstrating early signs of autonomous behaviour. They should be managing their study schedules, participating actively, applying feedback, and navigating the LMS with confidence. The cycle then progresses to the next phase, where deeper resilience and adaptability are developed through infrastructure and access supports.

6.4.1.3 Phase 3: Infrastructure, Access, and Conditions for Sustainable SDL

The third phase of the ALIGN SDL Operational Cycle focuses on building the environmental and systemic conditions that enable students to sustain and deepen SDL behaviours beyond the initial stages of engagement. This phase is the ***"I – Infrastructure & Access"*** pillar. It acknowledges that even the most motivated and well-prepared students cannot self-direct effectively without equitable access to technology, stable digital ecosystems, and reliable institutional support. As demonstrated in this study, infrastructural constraints, including intermittent connectivity, load-shedding, data scarcity, and device limitations, significantly undermine students' attempts to plan and regulate their learning.

In this phase, the role of the institution becomes especially prominent. Institutions need to think creatively about strengthening institutional and administrative support, which are critical enablers of self-directed learning (SDL). Practical strategies include zero-rated access to core learning platforms, device-loan schemes, data bursaries, downloadable offline learning materials, and proactive communication during infrastructure disruptions. These measures can significantly reduce structural barriers that disproportionately affect rural and economically disadvantaged students. Such interventions operationalise equity as a prerequisite for autonomy, ensuring that SDL is not a privilege reserved for students with resources but a systemic right. This perspective is supported by studies on digital inequality, which show that disparities in access to devices, connectivity, and digital resources continue to shape students' capacity to participate meaningfully in online learning environments (Czerniewicz et al., 2020; Mabidi, 2024). These inequalities persist beyond emergency remote teaching and require sustained, context-responsive institutional interventions.

From an SDLT perspective, this phase extends the students' capacity for self-direction by enlarging the range of choices and resources available for independent engagement. Access to multimodal, accessible learning resources, including transcripts, captions, audio files, and multilingual support, would empower students to select strategies suited to their contexts and preferences. This would align with SDL's emphasis on student-initiated resource use and choice (Garrison, 1997; Panadero, 2017). From a TDT stance, improved infrastructure reduces structural transactional distance by enhancing communication channels, enabling consistent instructor–student and peer–peer interaction, and promoting flexibility in pacing and access (Moore & Kearsley, 2012). Reliable systems enable students to maintain continuity in their learning, particularly when personal or contextual disruptions arise.

During this phase, SDL becomes more sustainable as internal capability and external enabling conditions combine to support students. The foundations have been laid not only for autonomy to develop, but also for independence to be maintained across fluctuating circumstances. The cycle then shifts toward human relational scaffolding that internalises SDL behaviours and accelerates students' growth.

6.4.1.4 Phase 4: Guided Progression Through Mentorship and Coaching

The fourth phase builds on the foundational skills and environmental stability created in earlier phases by providing structured human support that enables students to consolidate and extend SDL behaviours. Aligned with the *"G – Guidance, Coaching & Mentorship"* pillar, this phase acknowledges that self-direction is strengthened through relational learning and co-regulation before it becomes fully internalised. While SDL emphasises autonomy, the pathway to autonomy is social and iterative; students benefit significantly from ongoing coaching and reflective dialogue with more experienced peers, tutors, and mentors (Hadwin et al., 2018; Järvelä & Hadwin, 2013).

In this phase, mentorship moves beyond initial orientation support to sustained academic coaching that equips students with higher-order self-regulatory strategies, including adaptive time management, reflective goal revision, and problem-solving. Fortnightly check-ins with a competent mentor would provide students with structured opportunities to practise self-monitoring and self-evaluation, which Zimmerman (2002) identifies as central mechanisms of self-regulation. Importantly, the nature of mentorship should evolve over time from a directive to an autonomy-supportive approach, reflecting the "gradual release of responsibility" model used in scaffolded instruction.

Within a TDT frame, this phase strengthens dialogic presence, reducing psychological isolation and increasing students' sense of belonging. The personalised nature of coaching creates a "proximal presence" that supports students in moments of uncertainty, thus narrowing transactional distance and sustaining engagement. As students repeatedly engage in reflective and strategic learning behaviours under guidance, they begin to internalise these behaviours, decreasing dependence on external support and increasing confidence in managing their own learning pathways.

Students typically reach a level of self-directed functioning characterised by proactive engagement, persistence, and reflective practice by the end of this phase. The cycle then moves towards the final phase, which consolidates autonomy through technology-enabled networks and data-informed decision-making.

6.4.1.5 Phase 5: Networked, Data-Informed, and AI-Supported Independence

The fifth phase of the ALIGN SDL Operational Cycle focuses on consolidating students' independence through the intelligent use of peer networks, learning analytics, and AI-supported learning practices. This phase is the *"N – Networks, Analytics & AI Literacy"* pillar. It represents the maturation of SDL, where students become active agents who strategically mobilise digital tools, data, and social learning networks to enhance their academic performance and lifelong learning capabilities.

In this phase, students shift from relying primarily on formal instruction to drawing on peer-to-peer knowledge networks, analytics dashboards, and ethically guided AI tools to plan, monitor, and adapt their learning behaviours. Students learn to use digital networks not merely for social interaction or resource sharing, but as communities of practice through which they co-construct meaning, engage in collaborative problem-solving, and sustain motivation over time (Wenger, 2010). Participation becomes increasingly reciprocal: students both seek and offer guidance, ask and answer questions, and model productive academic behaviours for others. This collaborative dimension does not weaken SDL; rather, it strengthens students' ability to regulate their own learning.

Learning analytics can deepen self-regulation by providing learners with timely insight into their learning behaviours, enabling them to monitor progress and take corrective action. When used responsibly and developmentally, learning analytics support students in recognising patterns in their study practices and adjusting strategies to enhance learning effectiveness (Prinsloo, 2020). However, the ALIGN model positions analytics as a supportive and humane tool rather than a surveillance mechanism. Students are taught to interpret data as feedback

for growth rather than as judgment, thereby cultivating reflective, data-literate students capable of self-coaching.

Artificial intelligence introduces a new dimension to SDL by offering personalised explanations, language support, and ideation assistance. AI's potential to democratise access to high-quality feedback and academic discourse is particularly valuable in ODeL contexts, where instructor contact is limited (Kasneci et al., 2023; Lin et al., 2023). The ALIGN cycle, therefore, integrates AI literacy as a core SDL competency, with students guided to use AI as a thinking partner, not a substitute for thinking. As part of this phase, they learn to create intelligent and articulate prompts, adapt output to their own voice, and verify accuracy. In this model, AI supports autonomy rather than eroding academic integrity or diminishing epistemic agency.

From an SDLT perspective, this phase marks the highest level of student autonomy, where students initiate learning tasks, monitor and adjust strategies independently, and reflect critically on their development. From a TDT standpoint, transactional distance is mainly self-managed at this stage: students have internalised the ability to sustain dialogue across multiple channels (peer networks, AI tools, analytics), reducing reliance on instructors while still benefiting from institutional structures. The student becomes an active agent in shaping their cognitive, social, and technological learning environment.

By the end of this phase, SDL has become a self-sustaining habit of mind, transferable beyond the module, programme, or institution. This fulfils the aim of ODeL not only to deliver content, but to cultivate autonomous, adaptive, lifelong students.

6.4.1.6 Integrative Dynamic of the ALIGN SDL Operational Cycle

The ALIGN SDL Operational Cycle is not linear but iterative and recursive, reflecting the developmental nature of SDL. Students may move forward or backwards through phases depending on context, life circumstances, or module demands. New modules, disciplinary transitions, or disruptions such as illness or infrastructural instability may require renewed scaffolding, demonstrating that SDL is contextually contingent rather than a permanently fixed trait.

Across phases, a clear pattern emerges: the cycle progressively reduces transactional distance while increasing student autonomy, in line with TDT and SDLT. Early phases prioritise structured support to lower initial transactional distance, while later phases intentionally shift responsibility to students, widening choice and flexibility as students gain competence. This

represents an intentional “handing over of control”, with the institution gradually reducing the intensity of scaffolding as students internalise self-directed behaviours.

In essence, the ALIGN SDL Operational Cycle orchestrates movement from dependence to supported engagement to independence to interdependence, where mature SDL is characterised not by isolation but by purposeful, ethical engagement with digital networks, tools, and communities. The cycle also ensures equity in autonomy, in that students who enter with limited resources or prior exposure are supported in reaching the same SDL outcomes as those with advantages.

The following subsection extends this conceptualisation by explaining how the interventions in Table 6.1 operationalise the cycle institutionally, ensuring alignment across personal, pedagogical, infrastructural, mentoring, and digital-network layers.

The pillars of the ALIGN framework are not linear steps but mutually reinforcing conditions, as shown in Figure 6.1. As they strengthen, transactional distance narrows, and SDL becomes a property of the system rather than an accident of individual temperament.

6.4.2 The ALIGN SDL Framework at a Glance

The ALIGN SDL Framework consists of five interdependent pillars that align with TDT’s levers of dialogue, structure, and autonomy and provide SDL with a developmental pathway. They are as follows:

A – Autonomy & Learner Capability: SDL must be taught through a compulsory orientation that includes instruction on time management, goal-setting, metacognitive reflection, digital literacy, and strategic help-seeking. In addition, ongoing micro-learning on self-regulation should be integrated into modules.

L – Learning Design & Presence: Course design should be mobile-first, low-bandwidth, and scaffolded with predictable communication, staged tasks, and continuous lecturer presence. Feedback must be timely, specific, and future-oriented to reduce transactional distance.

I – Infrastructure & Access: Infrastructure is a pedagogical determinant. Institutions must commit to device loan schemes, functioning platforms that do not periodically go offline (i.e. guaranteed uptime), offline content access, and universal digital literacy onboarding to ensure equitable SDL conditions.

G – Guidance, Coaching & Mentorship: Institutions must legitimise and structure peer communities, mentorship, and coaching. Tutor training must emphasise autonomy-supportive feedback to build co-regulation that transitions to self-regulation.

N – Networks, Analytics & AI Literacy: Peer networks, ethical AI literacy and learning analytics should be harnessed to sustain independent and collaborative SDL. AI must be positioned as a cognitive partner rather than a shortcut.

6.4.3 The Operationalisation of the ALIGN SDL Framework in Practice

This subsection translates the ALIGN SDL Framework into concrete, actionable interventions that institutions can implement to strengthen self-directed learning in ODeL contexts. While the previous sections established the conceptual and theoretical underpinnings of the framework, this section focuses on practical execution. It presents how each pillar of the ALIGN model can be embedded into institutional systems, teaching and learning practices, student support mechanisms, and digital ecosystems. The framework is operationalised through two components: (i) the ALIGN SDL Operational Cycle, now expressed as an applied institutional blueprint; and (ii) Table 6.1, which specifies interventions, mechanisms, and anticipated SDL outcomes at each level.

A visual representation of the framework is provided in Figure 6.1: The ALIGN SDL Framework Operational Cycle. Although presented as sequential phases for clarity, the figure depicts a fluid, iterative cycle in which institutions and students can re-enter earlier phases for reinforcement. The cycle is structured as follows:

- Phase A: Activate Capability – focuses on foundational SDL and digital readiness through credit-bearing orientation and an SDL toolkit.
- Phase L: Learning Design & Presence – strengthens course-level design, presence, feedback loops, and communication practices that scaffold early autonomy.
- Phase I: Infrastructure & Access – ensures equitable digital learning conditions by stabilising infrastructure, reducing data barriers, and improving accessibility.
- Phase G: Guidance, Coaching & Mentorship – comprises human support mechanisms that develop co-regulation leading to increasing independence.
- Phase N: Networks, Analytics & AI Literacy – sustains SDL through peer networks, ethical AI use, and data-informed self-monitoring.

These phases form a reinforcing cycle of development and support, promoting the maturation of SDL as both an institutional capability and a student attribute.

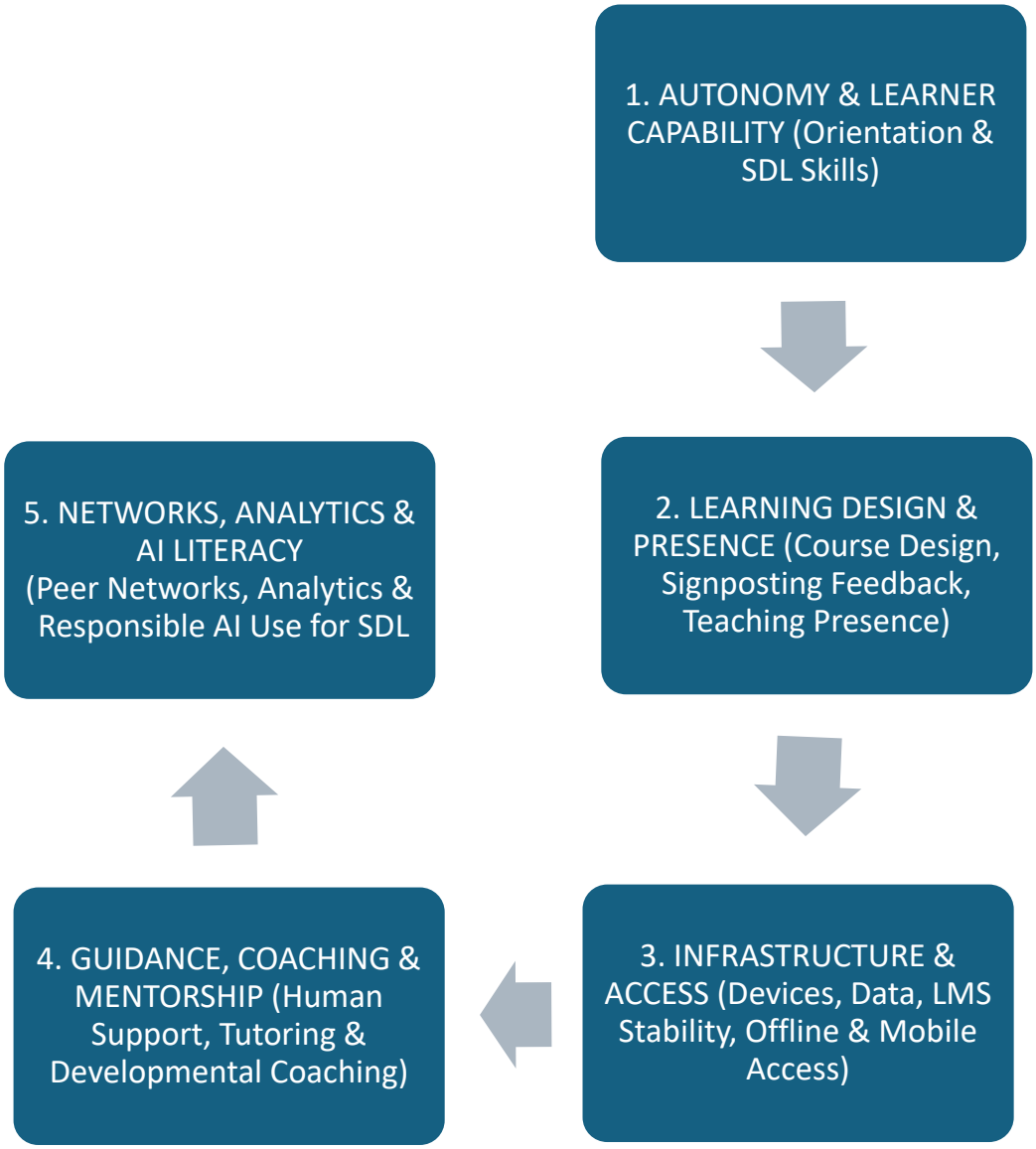

Figure 6.1: The ALIGN SDL Framework Operational Cycle

The model presents a continuous, non-linear cycle of five interdependent dimensions that collectively strengthen self-directed learning in ODeL contexts. The cycle starts with A – Autonomy & Learner Capability, which teaches core self-regulatory skills; it then advances to L – Learning Design & Presence, where autonomy-supportive, design and teaching presence make expectations clear and learning pathways transparent, with regular feedback. Next, I – Infrastructure & Access ensures reliable devices, data, platforms, and accessible materials so that design intentions are feasible in practice. The cycle then moves to G – Guidance, Coaching & Mentorship, where timely human support, orientation, and peer communities scaffold planning, monitoring, and help-seeking. It culminates in N – Networks, Analytics & AI Literacy, where ethical learning analytics, dashboards, and AI-enabled tools amplify strategic independence without replacing human dialogue. Directional arrows between each dimension indicate forward movement. However, movement through the system will inevitably be

repetitive. The five stages of the Align Framework express the tenets of Self-Directed Learning Theory (SDLT), highlighting how capability grows through iterative cycles of planning, action, and reflection. The model as a whole also reflects Transactional Distance Theory (TDT), in that students progressing through the five stages of the ALIGN model, with its emphasis on structured design and responsive dialogue, will experience reduced transactional distance. The circular flow of the model captures a virtuous cycle: SDL capability increases, transactional distance decreases, and students re-enter the cycle at progressively higher levels of autonomous, supported, and connected study.

Table 6.1 outlines specific mechanisms, interventions, and expected SDL outcomes related to each pillar. The mechanisms shown in the second column enable institutions to convert the conceptual framework into strategic action. The operationalisation spans three levels: student-level practices, teaching-level interventions, and institutional/system-level provisions.

Table 6.1: Operationalisation of the ALIGN SDL Framework for ODeL Contexts

Level	**Mechanisms / Interventions**	**Expected SDL Outcomes**
A – Autonomy & Learner Capability (personal/learner level)	• Credit-bearing SDL & digital literacy orientation (time-blocking, realistic scheduling, goal-setting, strategic help-seeking, reflective journaling) • SDL toolkits with weekly planners, micro-deadline templates, and mobile-first study strategies • Baseline diagnostics with differentiated digital literacy micro-modules • Self-efficacy coaching through modelling, peer exemplars, and practical task-based confidence-building • Reflective learning journals linked to early low-stakes tasks	• Improved self-regulation and reduced procrastination • Enhanced intrinsic/extrinsic motivation and academic confidence • Increased strategic help-seeking and reflective learning habits • Stronger resilience and sustained engagement
L – Learning Design & Presence (institutional supports: course & teaching level)	• Mobile-first, low-bandwidth course design with clear pathways for learning • Short explainer videos and auto-feedback quizzes for quick reinforcement • Weekly signposts (“what,	• Increased students' autonomy and pace control • Reduced academic isolation through consistent dialogue

	why, how, when") + 48-hour lecturer/tutor response • Inquiry-based tasks, scaffolded assessments, and explicit reflection prompts • Rubrics and constructive feedforward comments showing "next steps"	• Deeper metacognition and critical thinking • Higher participation and persistence in learning activities
I – Infrastructure & Access (systemic/structural: university & policy level)	• Zero-rated access to LMS and digital library; community Wi-Fi hubs • Device-loan pools and targeted data bursaries prioritising vulnerable students • Uptime performance standards and proactive outage communication alerts • Downloadable "offline core packs" including readings, instructions, and tasks • Accessibility-by-design: captioning, transcripts, alt-text, multilingual support • Standardised course design across programmes for predictability	• Narrowed digital divide and greater equity of participation • SDL becomes feasible for rural and low-income students • Increased trust in ODeL reliability and institutional commitment • Fewer study disruptions linked to technology limitations
G – Guidance, Coaching & Mentorship (human support mechanisms)	• Structured buddy/peer mentorship schemes for first-year and returning students • Fortnightly check-ins focusing on goals, obstacles, and action plans • Tutor training with prompt feedback • Early-alert referral pathways routing students to real people, not websites • Recognition incentives for peer mentors and student support contributions	• Faster acclimatisation to ODeL demands • Increased accountability and co-regulation capacity • Growing student independence supported by safety nets • Strengthened habits of planning, reflection, and follow-through
N — Networks, Analytics & AI Literacy (digital SDL mechanisms)	• Moderated peer communities via WhatsApp/Teams/Telegram • Ethical AI literacy training (prompting for learning vs.	• Stronger sense of belonging and engaged peer support

	plagiarism, citation norms, paraphrasing, reflective use) • Student-facing learning analytics dashboards + humane early-alerts linked to mentors • Process-based assessments (draft trails, reflections, viva/checkpoints) • Analytics-informed improvements to course design and student support	• Improved self-monitoring and early help-seeking behaviour • Responsible and critical AI use that supports learning rather than replaces it • Higher-quality drafts and deeper feedback uptake • Continuous self-improvement through data-informed reflection

The operationalisation shown in Table 6.1 positions SDL as the outcome of mutually reinforcing mechanisms spanning students, teaching, and institutional levels. It reinforces the study's conclusion that SDL is enabled when capability, design, infrastructure, guidance, and digital networks operate in synergy rather than in isolation.

6.5 LIMITATIONS

This study offers a rich, contextualised account of how self-directed learning (SDL) can be enabled in an ODeL university; nevertheless, several limitations should be acknowledged to frame interpretation and transferability.

Scope and setting: The inquiry was conducted within a single South African ODeL institution. Institutional culture, programme mix, student demographics, and technology stacks vary widely across universities; consequently, the generalisability of findings to all ODeL settings should be approached with caution. The ALIGN SDL Framework was devised in and for this context. Therefore, its portability to other systems remains to be demonstrated.

Design and inference: This was an interpretive, phenomenological case study, focusing on depth rather than breadth and on meaning rather than measurement. The design is not intended to establish causal effects between specific practices and outcomes; instead, it explains how participants experience SDL and what they perceive as enabling or constraining conditions. Claims are therefore analytic and explanatory, not predictive.

Sampling and voices represented: Purposive sampling foregrounded the final-year B.Ed. students, academics, and instructional designers. Important stakeholders, including e-tutors, programme coordinators, ICT/help-desk staff, library advisors, student counsellors, disability

services, and senior leadership, were omitted. Their perspectives may have added nuance on operational bottlenecks, service standards, and policy trade-offs that shape day-to-day SDL.

Data sources and self-report bias: The primary evidence base comprised interviews, focus groups, and documents. While triangulated across participant groups, these data are susceptible to recall error, attribution error, and social-desirability bias, especially in group settings where power dynamics can temper dissenting views. The absence of systematic observational data, assessment artefacts, or support-ticket logs limits the extent to which reported practices and difficulties can be corroborated behaviourally.

Timing and technological fluidity: Data were generated during a rapidly evolving period marked by intermittent load shedding, shifting data costs, and ongoing LMS/platform updates. Since then, institutional procedures, connectivity conditions, and AI tool uptake may have changed. The analysis captures a moving target; some contextual constraints or affordances may now differ.

Language and modality: Most engagements were conducted online and primarily in English. Online interviewing can constrain rapport and non-verbal cues; bandwidth interruptions may also affect contributions. For multilingual participants, expressing complex experiences in a second language may have narrowed the granularity of accounts.

*Researcher positionality***.** As in all interpretive work, the researcher's background and commitments shaped the framing and construction of themes. Reflexive notes, an audit trail, and member checking were used to mitigate undue influence, yet an interpretive slant cannot be eliminated.

Outcome evidence: Although participants linked specific practices to improved persistence or confidence, the study did not track objective outcomes (e.g., retention, grades, time-to-completion) or implement the ALIGN Framework prospectively. As such, claims about impact on achievement remain provisional.

AI use and integrity: Findings on AI-enabled support rely on participant self-disclosure rather than verified usage data. Patterns of responsible versus problematic use and their relation to assessment design require further empirical scrutiny.

Transferability and equity: The study foregrounds digital access and infrastructure as preconditions for SDL. Because access conditions are uneven within and across institutions, the feasibility of recommended actions will vary. Readers should assess transferability against their own policy constraints, budgets, and ICT ecosystems.

These limitations do not diminish the study's contribution; instead, they delineate its boundaries and point to clear avenues for future work. Future work might include multi-site replications, mixed-methods designs that combine perceptions with behavioural traces, longitudinal cohort tracking, and design-based implementation of the ALIGN Framework with outcome evaluation.

6.6 IMPLICATIONS OF THE STUDY

The findings of this study carry important implications for theory, institutional practice, teaching and learning, student support, and future innovation within Open, Distance and e-Learning (ODeL). A central implication is that self-directed learning (SDL) must be intentionally developed, supported, and systemically enabled rather than assumed as a pre-existing student trait. The study highlights that cultivating SDL requires coordinated action across curriculum design, institutional systems, digital infrastructure, and student support structures, particularly within digitally unequal contexts such as South Africa.

6.6.1 Theoretical Implications

The study advances understanding of SDL by demonstrating that SDL is shaped by contextual and systemic conditions as much as by individual capability. It extends Self-Directed Learning Theory by showing that motivation and self-regulation alone are insufficient when learning environments lack clarity, dialogue, or reliable technological access. The findings reinforce that SDL is a developmental process supported by structured practice, feedback, peer interaction, and guided autonomy. The research also operationalises Transactional Distance Theory at course and programme levels. It illustrates how practical design elements such as mobile-first learning materials, clear communication, staged scaffolding, feedback loops, peer learning spaces, and early-alert guidance reduce psychological distance for students. This contributes to theoretical clarity on how to balance structure, dialogue, and autonomy to cultivate SDL at scale in modern ODeL systems.

6.6.2 Practical Implications for Teaching, Learning and Curriculum Design

The findings signal that ODeL pedagogy must shift from content transmission only towards purposeful cultivation of autonomy, metacognition, and self-regulation in addition to content transmission. Lecturers should:

- integrate SDL development into module design rather than treating it as a separate skill;

- use clear course structures, staged assessments, and timely feedback to reduce uncertainty and support independent progress;
- adopt mobile-first, low-bandwidth resources and offline-accessible learning packs to ensure that design supports and does not hinder SDL;
- make teaching presence visible and consistent to strengthen engagement and reduce student isolation.

These actions would directly address student challenges revealed in the study. They offer practical ways for lecturers and instructional designers to build SDL gradually and sustainably.

6.6.3 Institutional and Policy Implications

At the institutional level, the study highlights that SDL should be positioned as a strategic priority linked to student success and capability. Key implications include the following:

- Institutions should adopt a coordinated institutional approach to SDL that involves orientation, academic development, digital-literacy support, and student success strategies;
- Institutions should ensure reliable infrastructure, LMS stability, zero-rated access, and device and data support as core enablers of equitable participation, not optional add-ons;
- SDL skills and digital readiness benchmarks should be embedded within quality assurance and programme review processes;
- There is a clear need to improve the responsiveness of academic and support services, as delays in assistance directly weaken student autonomy and confidence.

The findings show that institutional fragmentation undermines SDL. A more coherent and student-centred system is needed to create conditions in which all students can self-direct successfully.

6.6.4 Implications for Student Support and Development

The study calls for a shift from reactive, problem-based support towards proactive, developmental, and sustained support for SDL across the student journey. This includes:

- structured mentoring and peer-learning ecosystems that normalise help-seeking, co-regulation, and accountability;
- early-alert systems that trigger supportive guidance, rather than punitive messaging, to help students adjust before disengagement occurs;

- targeted support for diverse student groups, particularly older students, first-generation students, and those in rural or low-connectivity contexts.

The study shows that SDL development is strengthened when students are accompanied, especially in their early stages of study, and when support is tailored to varied starting points and digital realities.

6.6.5 Implications for Future Innovation and Research

The study identifies opportunities for further innovation in ODeL systems, particularly in the areas of learning analytics, AI-enabled support, and peer-networked learning. There is potential to:

- develop ethical AI-literacy programmes that assist students in using AI for learning, rather than replacing cognitive effort;
- investigate how learning analytics can support timely intervention and personalised learning pathways without increasing surveillance or anxiety;
- examine the long-term impact of the ALIGN SDL Framework when implemented institution-wide, including effects on retention, throughput, and graduate lifelong learning;
- explore how social learning networks and AI can be combined to support SDL in resource-constrained Global South contexts.

Further research across multiple institutions would strengthen generalisability and inform sector-wide ODeL practice.

6.7 CONCLUSIONS

This study set out to examine how self-directed learning (SDL) can be effectively cultivated in an Open, Distance, and e-Learning (ODeL) university, with a specific focus on the South African context, where digital access, socio-economic realities, and infrastructural variability shape students' experiences. Drawing on Self-Directed Learning Theory (Knowles, 1975) and Transactional Distance Theory (Moore, 1997), the study confirms that SDL is neither a natural student attribute nor a skill that emerges automatically in online environments. Rather, SDL is a *deliberate, developmental, and system-supported process* that requires purposeful design, consistent support, and enabling conditions across the student journey.

The evidence demonstrates that SDL is strongest when five key conditions work in concert: (i) students develop core self-regulation capabilities, (ii) course design is clear, structured, and

promotes meaningful engagement, (iii) peer learning and mentorship networks are legitimised and supported, (iv) institutional systems provide reliable academic and technical scaffolding, and (v) infrastructure and connectivity enable uninterrupted participation. Where these elements are present, students can translate motivation into habits, habits into competence, and competence into sustained academic success. Where they are lacking, SDL becomes unevenly attainable, reinforcing advantages for digitally resourced students and disadvantaging those already navigating resource constraints.

A key conclusion is that SDL in ODeL is only as effective as the system that enables it. Promoting SDL through rhetoric, motivational messaging, or assumptions of student independence is insufficient. Sustainable SDL requires coordinated, intentional, and well-designed institutional practices that gradually build student confidence and autonomy. Therefore, the study challenges deficit perspectives that frame SDL as a matter of willpower, discipline, or student attitude. Instead, it positions SDL as a shared institutional responsibility – one that must be embedded in curriculum, student support, teaching practice, and the digital learning environment.

A central contribution of this study is the development of the ALIGN SDL Framework, which provides a practical and theoretically grounded model for fostering SDL across an ODeL system. The framework integrates five mutually reinforcing pillars: A: Autonomy & Learner Capability; L: Learning Design & Presence; I: Infrastructure & Access; G: Guidance, Coaching & Mentorship; and N: Networks, Analytics & AI Literacy. It offers a structured roadmap for operationalising SDL at all levels – that of the student, the course, the institution, and the university ecosystem. It also acknowledges current realities such as the need for mobile-first learning, peer digital communities, and the growing role of AI in student support. The ALIGN Framework further advances Transactional Distance Theory by demonstrating how modern forms of presence, structured support, and technology-mediated dialogue can narrow transactional distance and enable student autonomy in learning.

If adopted systematically, the ALIGN Framework could shift SDL from an individual challenge to an embedded institutional practice. It provides a realistic blueprint for strengthening engagement, reducing avoidable attrition, improving academic success, and equipping graduates with the habits of lifelong learning that extend beyond formal study.

In conclusion, cultivating SDL in ODeL is not about urging students to “learn independently”; it is about designing systems that enable and sustain independence. Autonomy becomes durable when students are intentionally prepared, supported, connected, and enabled to self-direct with confidence. The overarching message from this study is clear: SDL must be

intentionally designed for, supported, and consistently reinforced rather than assumed. The future of meaningful ODeL provision lies in universities' ability to create coherent, supportive, and well-connected learning ecosystems that allow every student, not only the most advantaged, to thrive as a self-directed student.

6.8 CHAPTER SUMMARY

This chapter has distilled the study's contributions into actionable recommendations and a holistic framework (ALIGN), showing the implications of the findings for theory, practice, and policy. Its conclusion is deliberately simple: self-direction is learned and lived within systems. Where dialogue is predictable, design is humane, peers are mobilised, AI is guided, and infrastructure is fair, students can carry the weight of autonomy. Where these are lacking, exhortations to "be self-directed" become another barrier. The task ahead for ODeL is to do the ordinary things well at scale, with equity in mind.

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APPENDICES

APPENDIX A: ETHICAL CLEARANCE

UNISA

UNISA COLLEGE OF EDUCATION ETHICS REVIEW COMMITTEE

Date: 12 October 2024

Ref: **2024/10/12/00000200/05/RB**
Name: **Prof Mncedisi Christian Maphalala**
Student No.: **31425496**

Decision: Ethics Approval form

Dear **Prof Mncedisi Christian Maphalala**

Researcher(s): Name: **Prof Mncedisi Christian Maphalala**
E-mail address: 31425496@mylife.unisa.ac.za
Telephone: **083 430 1088**

Supervisor: Name: **Prof Ti Mogashoa**
E-mail address: mogasti@unisa.ac.za
Telephone: **076 372 5084**

Title of research: FOSTERING SELF-DIRECTED LEARNING IN AN OPEN DISTANCE E-LEARNING (ODeL) UNIVERSITY.

Qualification: PhD (Curriculum Studies)

Thank you for the application for research ethics clearance by the UNISA College of Education Ethics Review Committee for the above-mentioned research. Ethics approval is granted for the period **2024/10/12** to **2029/10/12**.

*The **write risk level** application was reviewed by the Ethics Review Committee on **12 September 2024** in compliance with the UNISA Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.*

The proposed research may now commence with the provisions that:

1. The researcher will ensure that the research project adheres to the relevant guidelines set out in the Unisa Covid-19 position statement on research ethics attached.
2. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.

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3. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the UNISA College of Education Ethics Review Committee.
4. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
5. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing.
6. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
7. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data requires additional ethics clearance.
8. No field work activities may continue after the expiry date **2029/10/12.** Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:
*The reference number **2024/10/12/00000200/05/RB** should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.*

Kind regards,

Prof RB Monyai
Acting Head: CEDU Research
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Executive Dean: CEDU
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APPENDIX B: GATEKEEPER'S LETTER

UNISA

RESEARCH PERMISSION COMMITTEE (RPC) OF THE SENATE RESEARCH, INNOVATION, POSTGRADUATE DEGREES AND COMMERCIALISATION COMMITTEE (SRIPCC)

04 March 2025

Decision: Permission approval Ethics Approval from 25 February 2025 to 12 October 2029 (Aligned to the institutional ethics approval)

Ref #: 2025_RPC_002
Prof Mncedisi Maphalala
Student#: 31425496

Principal Investigator: **Prof Mncedisi Maphalala**
Department of Curriculum & Instructional Studies
School of Teacher Education
College of Education
31425496@mylife.unisa.ac.za

Supervisor(s): Prof Tebogo Mogashoa (mogasti@unisa.ac.za)

Fostering self-directed learning in an Open Distance e-learning (ODeL) University.

Your application regarding permission to involve Unisa staff, students and data in respect of the above study has been received and was considered by the Research Permission Committee (RPC) of the UNISA Senate, Research, Postgraduate Studies, Innovation and Commercialisation Committee (SRIPCC) on **25 February 2025.**

I am pleased to inform you that permission has been granted for the study. You may invite the following 2 groups of Unisa employees for a virtual focus group discussion:

- 4th year Bachelor of Education lecturers/academics (CEDU) (n=10). And
- Instructional designers for semi-structured interviews (tuition support) (n = 2). You may also invite the following Unisa students for a virtual focus group discussion: 4th-year B.Ed students (n = 10).

Unisa ICT will act as the gatekeeper of the study.

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Adherence to the National Statement on Ethical Research and Publication practices, principle 7 referring to social awareness, must be promoted:
"Researchers and institutions must be sensitive to the potential impact of their research on society, marginal groups or individuals, and must consider these when weighing the benefits of the research against any harmful effects, with a view to minimising or avoiding the latter where possible."

The personal information made available to the researcher(s)/gatekeeper(s) will only be used for the advancement of this research study as indicated and for the purpose as described in this permission letter. The researcher(s)/gatekeeper(s) must take all appropriate precautionary measures to protect the personal information given to him/her/them in good faith and it must not be passed on to third parties. The dissemination of research instruments through the use of electronic mail should strictly be through blind copying, so as to protect the participants' right of privacy. The researcher hereby indemnifies UNISA from any claim or action.

Note: The reference number **2025_RPC_002** should be clearly indicated on all forms of communication with the intended research participants and the Research Permission Committee.

Kind regards,

Dr Retha Visagie – Deputy Chairperson
Email: visagrg@unisa.ac.za, Tel: (012) 429-2478

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APPENDIX C: FOCUS GROUP DISCUSSION SCHEDULE (ACADEMICS)

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FOCUS GROUP DISCUSSION SCHEDULE FOR ACADEMICS

Title of the Thesis: Fostering Self-Directed Learning in an Open Distance E-Learning (ODeL) University

Theme 1: Understanding Self-Directed Learning (SDL)

- What is your understanding of self-directed learning in the context of ODeL?
- Probe: How do you define SDL in your teaching? How important do you think it is for ODeL students?

Theme 2: Current Strategies for Fostering SDL

- What strategies or practices do you currently use to foster self-directed learning among your students?
- Probe: Can you provide specific examples from your teaching practice? How do you encourage students to take more control of their learning process?

Theme 3: Challenges in Promoting SDL

- What challenges do you face in promoting self-directed learning in an ODeL environment?
- Probe: Are there specific barriers related to student readiness, institutional support, or course design? How do you address these challenges?

Theme 4: Support Systems for Academics:

- What institutional support (e.g., resources, training, technology) is necessary to foster self-directed learning in ODeL?
- Probe: Do you feel that you have adequate support? What additional resources or training would help you facilitate SDL more effectively?

Theme 5: Impact of Technology and Tools on SDL:

- How does the use of technology in an ODeL environment influence self-directed learning
- Probe: What digital tools or platforms are particularly helpful? How do you integrate them into your teaching to promote SDL?

Theme 6: Student Readiness for SDL:

- In your opinion, how prepared are students for self-directed learning in an ODeL environment?"
- Probe: What characteristics or skills do you observe in successful self-directed learning students? What about those who struggle?

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Theme 7 Assessment of SDL in ODeL:

- How do you assess whether students effectively engage in self-directed learning?"
- Probe: Do specific indicators or assignments help you gauge student autonomy and engagement? How do you provide feedback to support their growth in SDL?

Theme 8: Improving SDL in ODeL:

- What changes or improvements would you suggest better foster self-directed learning in ODeL?"
- Probe: What role can instructional design, curriculum development, or institutional policy play in enhancing SDL?

Theme 9: Final Reflections

- Is there anything else you want to add regarding fostering self-directed learning in an ODeL environment?"
- Probe: Are there any best practices or lessons learned that you feel should be shared with colleagues or administrators?

Theme 10: Suggestions for Future Research:

- Based on your experiences, do you believe areas related to self-directed learning in ODeL warrant further research?"

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APPENDIX D: FOCUS GROUP QUESTIONS (STUDENTS)

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FOCUS GROUP DISCUSSION SCHEDULE FOR STUDENTS

Title of the Thesis: Fostering Self-Directed Learning in an Open Distance E-Learning (ODeL) University

Theme 1: General Experience

- Can you share a little about your experience studying in an ODeL environment?
- Probe: How long have you been studying through ODeL? What has been the most challenging and rewarding aspect of this mode of learning for you?

Theme 2: Understanding Self-Directed Learning (SDL)

- In your own words, how would you describe self-directed learning?
- Probe: What does SDL mean to you? How important is it for success in ODeL?

Theme 3: Developing SDL Skills

- How have you developed self-directed learning skills during your studies?
- Probe: Were these skills taught, or did you have to learn them on your own? Can you give an example of when you applied SDL?

Theme 4: Challenges with SDL in ODeL

- What are the biggest challenges you face in being a self-directed learner in the ODeL environment?"
- Probe: Are there specific barriers, like time management, motivation, or resource access? How do you overcome these challenges?

Theme 5: Support from the University

- How has the university supported or helped you develop self-directed learning skills?
- Probe: Have you received any specific training, guidance, or resources to help you become more self-directed? What additional support do you think would help?

Theme 6: Role of Technology in SDL

- How does technology help or hinder your ability to engage in self-directed learning?
- Probe: What online tools or platforms have been the most helpful? Are there any technological challenges that make SDL difficult?

Theme 7: Time Management and Motivation

How do you manage your time and stay motivated to complete your studies in an ODeL environment?

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Theme 8: Improving SDL in ODeL:

- What changes or improvements would you suggest better foster self-directed learning in ODeL?
- Probes

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APPENDIX E: SEMI-STRUCTURED INTERVIEW QUESTIONS (INSTRUCTIONAL DESIGNERS)

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SEMI-STRUCTURED INTERVIEW SCHEDULE FOR INSTRUCTIONAL DESIGNERS

Title of the Thesis: Fostering Self-Directed Learning in an Open Distance E-Learning (ODeL) University

Theme 1: Participant Background

- Could you briefly describe your role as an instructional designer at this university?
- Probe: How long have you worked in instructional design, and how familiar are you with self-directed learning in the ODeL context?

Theme 2: Role in Supporting Self-Directed Learning

- What is your role in fostering self-directed learning in ODeL courses?
- Probe: Explain how your instructional design supports or encourages SDL?

Theme 3: Design Strategies for SDL

- What specific design strategies or approaches do you use to promote self-directed learning in your design courses?
- Probe: How do you structure courses to encourage student autonomy, motivation, and responsibility for their own learning?

Theme 4: Use of Technology in SDL

- How do the technological tools and platforms you use impact the fostering of self-directed learning?
- Probe: Which tools or technologies have particularly encouraged SDL? How do they support both students and instructors in an ODeL setting?

Theme 5: Challenges in Fostering SDL

- What are some of the main challenges you face in designing for self-directed learning in an ODeL environment?
- Probe: Are there any specific difficulties related to student engagement, motivation, or technical limitations? How do you address these challenges in your designs?

Theme 6: Student Readiness and SDL Design

- How do you consider students' varying readiness levels for self-directed learning when designing ODeL courses?
- Probe: Do you differentiate the design to accommodate students with less experience in self-directed learning? How do you provide scaffolding to guide students towards becoming more independent learners?

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Theme 7: Collaboration with Academics

- How do you collaborate with academics or instructors to ensure that the course design effectively promotes self-directed learning?
- Probe: Are there any specific collaborative processes or communication strategies that enhance the effectiveness of SDL in ODeL?

Theme 8: Feedback and Evaluation of SDL:

- How do you evaluate the effectiveness of instructional design in fostering self-directed learning?
- Probe: Do you gather feedback from students or instructors? How do you use this feedback to improve future course designs?

Theme 9: Best Practices and Recommendations:

- What best practices have you identified in fostering self-directed learning through instructional design?
- Probe: Can you share any specific design models, tools, or frameworks that have successfully promoted SDL in an ODeL environment?

Theme 10: Suggestions for Improvement

- What improvements or changes would you suggest to support better self-directed learning through instructional design in an ODeL university?
- Probe: Are there any areas where additional resources, tools, or collaboration could enhance SDL?

Theme 11: Final Thoughts

- Would you like to share anything else about your experience fostering self-directed learning through instructional design in an ODeL environment?

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APPENDIX F: CONENT FORMS FOR PARTICIPANTS TO PARTICIPATE IN SEMI-STRUCTURED INTERVIEWS AND FOCUS GROUP DISCUSSION.

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Consent Form for Participation in Semi-Structured Interviews and Focus Group Discussion.

Title of the Study: FOSTERING SELF-DIRECTED LEARNING IN AN OPEN DISTANCE E-LEARNING (ODeL) UNIVERSITY

Dear Participant

You are invited to participate in a research study aimed at exploring strategies for fostering self-directed learning in an Open Distance e-learning (ODeL) university context. This study will involve **semi-structured interviews** and **focus group discussions** to gain insights from students, academics, and instructional designers.

Purpose of the Study

The purpose of this study is to explore and understand how self-directed learning can be fostered in an ODeL environment, particularly in the context of your university. The findings will contribute to improving teaching and learning practices, promoting autonomy, responsibility, and student engagement. Your participation in this study is entirely voluntary. You may withdraw from the study at any time without penalty or loss of benefits to which you are otherwise entitled. You may also choose not to answer any specific questions during the interview.

All information collected in this study will be kept strictly confidential. Your name and any other identifying information will be removed from the data and replaced with a code. Only the research team will have access to the data, which will be stored securely. The study results will be published in aggregate form, and individual participants will not be identified. The sessions will be conducted virtually on MS Teams and be recorded (with your permission) to ensure accurate documentation of your responses.

The data collected during this study will be used solely for academic research purposes, including publication in academic journals, conference presentations, and inclusion in the researcher's thesis. Anonymised data may also be shared with academic colleagues for peer review or educational purposes.

Possible Risks

While this study is considered low-risk, some participants may experience anxiety or vulnerability when discussing their learning experiences. Academics may worry about how their insights about teaching effectiveness are perceived.

Possible Benefits

Participation in this study may provide: Reflecting on your learning experiences can lead to a deeper understanding of your learning strategies. Your input will help enhance educational practices and foster self-directed learning for future students in ODeL environments.

Measures to Address Potential Risks

To mitigate potential risks, the following measures are in place: Participants will have access to counselling services should they experience emotional discomfort during or after the study.

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Consent

By signing below, you acknowledge that you have read and understood the information provided above and agree to participate in this study. You will receive a copy of this consent form for your records.

Participant's Name (printed): _____

Participant's Signature: _____

Date: _____

Researcher's Signature: (Prof Mncedisi Maphalala) _____

Date: _____

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APPENDIX G: REQUEST FOR GATEKEEPER'S PERMISSION

The Registrar's office
University of South Africa
1 Preller Street,
Muckleneuk Ridge
Pretoria

Dear Registrar

Re: Request for Gatekeeper's Permission to Conduct Research

I hope this letter finds you well. My name is Mncedisi Christian Maphalala, and I am a Doctoral student at the University of South Africa in the College of Education. I am currently conducting research for my study titled **"Fostering Self-Directed Learning in an Open Distance e-Learning (ODeL) University."** The primary aim of this study is to explore strategies for enhancing self-directed learning within the context of ODeL, particularly at ODeL Institution (University of South Africa).

As part of this research, I plan to conduct semi-structured interviews and focus group discussions with participants, including fourth-year Bachelor of Education (B.Ed.) students, academics, and instructional designers affiliated with your institution. The insights gathered will improve teaching and learning practices, ultimately promoting autonomy, responsibility, and student engagement among learners in the ODeL environment.

I am writing to seek your permission to conduct this study within your institution. The study will adhere to all ethical guidelines and protocols established by the University of South Africa. Participation in this research will be entirely voluntary, and I will ensure that all participants are fully informed about the purpose of the study, the procedures involved, and their rights to withdraw at any time without any consequences.

All information collected during the study will be treated with strict confidentiality. Identifying information will be removed and replaced with codes to ensure that participants cannot be linked to their responses. The data will be securely stored and will only be accessible to the research team. The findings will be published in aggregate form, ensuring that individual participants are not identifiable.

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I would be grateful for your support in facilitating this research and would appreciate your endorsement to conduct this study within your institution. If you require any additional information or have any questions regarding the study, please do not hesitate to contact me at emaphamc@unisa.ac.za or 0834301088.

Thank you for considering my request. I look forward to your favourable response.

Sincerely

Prof Mncedisi Maphalala
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Cell: +27 83 430 1088
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APPENDIX H: EDITING CERTIFICATE

Jane Mqamelo

Editing Proofreading Writing

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Editing certificate

To Whom It May Concern
15 December 2025

I, Peta Jane Mqamelo, ID number 611120 0014 08 and an Accredited Text Editor with the Professional Editors' Guild (number MQA001), do herewith confirm that I have conducted an English proofreading and grammar edit on a doctoral thesis by Mncedisi Maphalala titled

Fostering Self-Directed Learning in an Open, Distance & E-Learning (Odel) Environment in South Africa

At the time of sending, to the best of my knowledge, the document was error-free. Note that issues were raised for the authors' attention, implying that some text may have been amended after editing was complete.

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Promoting excellence in editing

Jane Mqamelo
Accredited Text Editor (English)

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Membership year: March 2025 to February 2026

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APPENDIX I: TURNITIN SIMILARITY INDEX

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