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Self-directed learning skills for ODeL students in crisis situations: lessons from Zimbabwe Open University during Covid-19

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This study explores self-directed learning skills utilized by students at Zimbabwe Open University, Masvingo regional campus during the Covid-19 pandemic with the aim of identifying context-specific skills that can prepare ODeL students for future crisis situations. While ODeL institutions are often assumed to be resilient to disruptions, the Covid-19 pandemic exposed significant gaps in students' preparedness for autonomous learning in crisis contexts. In this qualitative case study, data were generated through semi- structured interviews with seven (7) purposefully selected lecturers and a quality assurance coordinator. Additionally, one focus group discussion session with seven (7) students was conducted. Guided by self-directed learning theory and informed by the community of inquiry (CoI) framework, the study found that self-management and personal discipline, cognitive and analytical skills and communication and technological proficiency were critical for sustaining learning during the crisis. The unique contribution of this study lies in its empirical identification of self-directed learning skills enacted by ODeL students specifically during a crisis context, an area that remains underexplored in SDL scholarship. The study recommends integrating SDL explicitly into teacher education and ODeL curricula to enhance preparedness for future disruptions

KEYWORDS

COVID-19, crisis situations, lessons, ODeL, self-directed learning, Zimbabwe Open University

Introduction

The Covid-19 pandemic posed unprecedented challenges to the education systems world -wide, including in Zimbabwe (Saavedra, 2020). Covid-19, according to Singaram et al. (2022), refers to the global spread of the novel coronavirus (SARS- CoV-2) that began in December 2019 and escalated into a worldwide health crisis by 2020. This phenomenon resulted in uncertainty regarding the safety in face-to-face learning environments, thereby compelling a shift to virtual learning platforms (Pokhrel and Chhetri, 2021). In Zimbabwe, studies have documented how Covid-19 disrupted higher education through campus closures, limited digital infrastructure, economic instability and uneven access to online learning platforms (Magaisa et al., 2023; Macheka, 2023; Masina and Mawonedzo, 2022). This disruption particularly affected students' capacity to manage learning independently under crisis conditions.

Zimbabwe Open University as the country' largest Open Distance and e-Learning (ODeL) institution, presents a critical case for understanding learning during crisis. Although ZOU operates as a distance education institution, its pedagogical model traditionally relied on face-to-face tutorials, weekend schools and regional campuses support, complemented by print-based and online resources. The abrupt suspension of these face-to-face support mechanisms during Covid-19 significantly altered students' learning experiences. The sudden shift to online learning, brought about by the novel nature of the pandemic, arguably challenged the flexibility, resilience and technological capabilities of institutions. While ODeL institutions are often assumed to be inherently flexible, the pandemic exposed limitations in institutional readiness and students' self-directed learning capacities.

Therefore, Covid-19 pandemic disadvantaged students unaccustomed to managing their own learning without face-to-face instruction (Mahlaba, 2020). In fact, some students in ODeL reported lack of support by lecturers as negatively impacting their learning experience (Ngubane-Mokiwa and Zongozzi, 2021). This shows the importance that the students place on lecturer instruction, despite the impossibility of this in some instances such as during crisis. Nevertheless, ZOU serves as a typical case as the institution had to adapt quickly to ensure continuity of learning for its diverse student population. Although ZOU promotes flexible learning, the pandemic underscored the critical role of self-directed learning (SDL) in ensuring student success during crises. However, the ability of students to effectively engage in SDL in crisis situations remains a critical concern. Students and lectures in ODeL institutions may not be fully aware of the key skills for SDL that can be utilized in high-pressure environments. Drawing on the experiences of ZOU during the Covid-19 pandemic, this study uniquely focuses on identifying the specific self-directed learning skills that students actively deployed to sustain learning in a crisis context. While SDL is often discussed as a general competence, limited empirical research has examined how these skills manifest during large-scale disruptions, particularly within ODeL environments.

The social and psychological effects of the Covid-19 pandemic on students and staff at ZOU necessitated the need for SDL skills. The stress of adapting to online learning in an uncertain and isolating environment as faced by students at ZOU, while academic staff had to transition to teaching using unfamiliar digital tools (Pokhrel and Chhetri, 2021), became evident. This disruption of social support networks, including in person interactions with peers and lecturers resulted in emotional and mental health challenges (Almomani et al., 2023), which further emphasized the importance of resilience and SDL skills for coping with the crisis. This is particularly true from the Community of Inquiry (CoI) theory perspective which suggests that effective online and distance education is not just about delivering content but about creating a learning community where learners actively engage through structured teaching, meaningful social interaction, and critical thinking (Anderson and Dron, 2011).

Meanwhile, the literature on students' awareness of their own SDL skills is paucity, despite this approach being widely recognized as crucial for navigating challenges, particularly in crisis situations (Mahlaba, 2020). Notwithstanding SDL's value in fostering resilience, adaptability and independent problem-solving

(Mokoena, 2022; Saavedra, 2020; Mahlaba, 2020), academics often overlook student's lack of awareness of SDL skills necessary during high-pressure environments. Existing studies largely focus on access, emergency remote teaching and technological challenges, with limited attention to the specific SDL skills that students deployed to sustain learning during prolonged crisis-particularly within African ODeL contexts. Consequently, students are unable to capitalize on SDL, particularly in crisis situations where the ability to learn autonomously is crucial. This provides the rationale for this study to explore how students in ODeL institutions can be better equipped to recognize, develop and apply these essential skills to ensure that they are prepared to navigate uncertainty and adversity effectively.

Clarification of key concepts

Self-directed learning

Self-directed learning is regarded as the students' ability to take control of their own learning process, including setting goals, identifying resources and evaluating their progress (Mahlaba, 2020; Mkhasibe and Mncube, 2021). The concept is synonymous with learner autonomy and reflects the idea that students bear the primary responsibility for what and how they learn. Autonomous learning, as observed by Gutierrez and Tomas (2019), Andriani et al. (2018), is the student's freedom to determine their learning behavior especially if they believe that lessons are meaningful to them. Thus, various terms such as learner independence, autonomous learning and independent learning are used interchangeably with SDL.

Brandt (2020) believes that students should, with or without the help of others, take initiative in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning. This also involves choosing and implementing appropriate learning strategies and evaluating learning outcomes. Therefore, in line with Gutierrez and Tomas (2019), SDL implies the freedom and autonomy for students to choose what, why, how and where of their learning. It is a counter-hegemonic approach suggesting the need to empower students with significant ownership over their learning, involving them in the decision-making process and giving them responsibility, rather than constantly monitoring, directing and supervising them (McCormack et al., 2021). As such, SDL increase the level of student participation in their learning. In the context of a crisis, self-directed learning becomes a crucial strategy for navigating the uncertainty and challenges presented by the situation.

Crisis

A crisis is a period of danger, difficulty, or doubt when problems require resolution or decisions (Waghid, 2023). Such events usually create significant disturbances leading to a state of uncertainty, urgency or threat and, by so doing, necessitate prompt responses. In such a scenario, decision-making becomes more complex, and the future appears unclear. Furthermore, a crisis could be triggered by external factors such as natural disasters, economic

recessions, pandemics or internal factors. This disturbance disrupts the *status quo*, demanding immediate attention and response to navigate these challenges. In other words, a crisis can be characterized by a breakdown of established systems, routines or expectations. Soudien and Harvey (2021) argue that crises may compel individuals or groups to reconsider their approaches to life, work or learning. Therefore, crisis in education may be viewed as an opportunity for transformation and reforms. Hence, in this study, the covid-19 is regarded as a crisis that affected the ODeL environment.

Statement of the problem

During the Covid-19 pandemic, students were compelled to study remotely due to lockdown measures. However, many lacked the necessary self-directed learning skills to manage their studies effectively (Charokar and Dullo, 2022) resulting in compromised learning experiences and outcomes. There is limited empirical evidence detailing which specific self-directed learning skills students successfully utilized in crisis contexts within ODeL institutions. This study therefore addresses the following research question: What self-directed learning skills were adopted to maintain teaching and learning during the Covid-19 pandemic at Zimbabwe Open University?

Theoretical framework

The study is underpinned by the self-directed learning (SDL) theory (Knowles, 1980) and informed by the community of inquiry (CoI) framework (Garrison et al., 2000). SDL theory emphasizes learners' responsibility for setting learning goals, identifying resources, monitoring progress and evaluating outcomes (Brandt, 2020). The Col framework complements SDL by foregrounding the social, cognitive and teaching conditions necessary for meaningful online learning. In this study, SDL is conceptualized as the learner-driven mechanism that enables cognitive presence, while communication and technological skills support social presence and institutional support structures enable teaching presence. By integrating SDL and CoI the study provides a holistic analytical lens for understanding how students navigated learning autonomously while remaining connected to learning communities during crisis. These theories also informed the study design, data collection and thematic analysis by providing an analytical lens through which students' adaptive learning behaviors during the pandemic were interpreted.

Materials and methods

A qualitative single case study design located within a constructivist paradigm was employed. ZOU was purposefully selected due to its national role in distance education and its exposure to Covid-19 related disruptions. Since the study sought to gain an in-depth understanding of the SDL skills necessary in high-pressure environments, the single case study design was

deemed appropriate than multiple cases can provide (Baxter and Jack, 2008).

Nonetheless, interviews and focus groups discussions were used to gather thick, rich and detailed descriptions to answer the research question and to understand the experiences of the participants on ODeL and SDL skills during the Covid-19 pandemic. Data were gathered from semi-structured interviews with lecturers and the quality assurance coordinator. Focus group discussions were also conducted with students. Semi-structured interviews (45–60 min) and a focus group discussion (70–90 min) were conducted in English. Data saturation was assessed iteratively, with no new themes emerging in later interviews and the focus group discussions.

The selected students and lecturers came from different faculties to ensure that they are exposed to various educational experiences, hence the need for participant representation from all faculties in the university (Cresswell, 2009; Magwa and Magwa, 2015, p.132). The inclusion of all faculties allowed students from diverse backgrounds and experiences to engage in the research, resulting in a comprehensive knowledge on the role of self-directed learning as a tool for adaptability during Covid-19 pandemic at Zimbabwe Open University (Yin, 2011, p.90).

The selection criteria were the participants' potential to contribute rich and valuable information to the study. Students were selected to reflect on how SDL maintained teaching and learning during Covid-19 pandemic. It was also assumed that university students had cognitive maturity and could evaluate the role of SDL during Covid-19 pandemic. Regarding the selection of lecturers, preference was given to lecturers who had been at the university for longer time, implying experience in that context. According to the researchers, the quality assurance coordinator was more likely to provide rich information on how self-directed learning can be effectively utilized in crisis situations to foster adaptability.

The data were analyzed using thematic content analysis through relying on identifying and analyzing the emerging themes from all the forms of data that were collected. This gave us an opportunity to understand SDL skills that can help students to fully leverage SDL in times of crisis. Following this logic, we were able to link the various opinions of participants on the role of self-directed learning in enabling individuals to adapt and learn effectively during unpredictable events.

The study's potential for rich and important data determined participant selection. Table 1 lists the participants' details.

Participants included seven (7) lecturers with more than five years of experience (one from each faculty), seven (7) students (one from each faculty) and one quality assurance coordinator. The study does not claim statistical representativeness. Instead, purposive sampling ensured institutional coverage across faculties and roles, enabling analytical depth rather than generalization.

We used Braun and Clarke's (2006, p. 87) six phases of thematic analysis. Interview transcripts were read and re-read to align with the first step or familiarization of the data. In the second step, the data were coded. In this case, coding schemes were used to simplify the correlations between the data. In the third instance, patterns and repetitions in the data sets were recorded. In the fourth step the emerging themes were reviewed

TABLE 1 Participants' details.

Category	Number (n)	Inclusion criteria	Data collection participation
Students	7	Student representative from each faculty male and female	Focus group
Lecturers	7	Male and female with more than 5 years of teaching experience	Semi-structured interviews
Quality assurance coordinator	1	They are deemed to have knowledge and experience gained by working with students and lecturers	Semi-structured interviews

to check if they work in relation to the coded extracts. Themes were then refined to generate clear names in the fifth step and finally in the sixth step selected extracts were analyzed in relation to the research question to produce scholarly report. All the authors independently coded the data and jointly developed the themes.

Member checking was conducted by sharing synthesized thematic summaries with selected participants for validation. Investigator triangulation was applied with all authors independently coding data before jointly agreeing on final themes. Coding disagreements were resolved through discussion and reference to raw transcripts. A coding trial was maintained to document analytic decisions. Data from interviews and focus group were integrated during theme development to enhance credibility. Self-directed learning (SDL) and community of inquiry (CoI) theories guided both coding and theme development, ensuring alignment between theory and analysis.

Ethical clearance was obtained from the University of South Africa (UNISA) Ethics Committee after meeting privacy, confidentiality, informed consent, assent and voluntary participation requirements. Before entering research sites, permission was sought from the Ministry of Higher and Tertiary Education, Innovation, Science and Technology Development. The purpose of the study was explained to the participants. Guided by Friedriksen and Rhodes (2004), participants were granted freedom to withdraw from the study at any time without consequences. Subsequently, member checking processes were conducted after the analysis process and contributed to the rigor and trustworthiness of the findings. The quality assurance criteria of dependability, conformability, transferability and credibility were employed.

Results

The findings are organized into three SDL skill domains that were identified as critical yet uncertain in crisis contexts namely,

self- management and personal discipline, cognitive and analytical skills, and communication and technological proficiency.

Self- management and personal discipline

During the Covid-19 pandemic, students applied self – management and personal discipline skills to balance learning and other challenges posed by the pandemic. These SDL skills helped students to keep up with coursework and deadlines. One of the students during the focus group discussion narrated her experiences as follows:

> Everything changed overnight during Covid-19 pandemic. As an ODeL student at Zimbabwe Open University, Masvingo Regional Campus, I quickly realized that I had to rely on my own initiative to keep my studies on track. I created a strict daily routine schedule, where I dedicated specific hours for learning, revisions and breaks.

According to the extract above, self-management and personal discipline can help students to maintain focus on their educational goals despite distractions. Similarly, when responding to the same question during an interview session, one of the lecturers elaborated:

> Self-management and personal discipline skills are the foundation of self-directed learning in crisis situations. These skills help to maintain structure during chaos when life becomes unpredictable. During Covid-19 pandemic, self-management and personal discipline were self-directed learning skills that enabled students to maintain a consistent study schedule, even in the absence of external pressure from us as lecturers.

The above quote implies that self-management and personal discipline enabled students to create and stick to their own schedules without the structure of classroom routines. A quality assurance coordinator confirmed that:

> During Covid-19 pandemic self-management and personal discipline enabled ODeL students learning independently to focus on urgent academic tasks and manage competing responsibilities.

This implies that self-management and self-discipline skills were essential for carving out study time.

These findings align with SDL theory's emphasis on learner autonomy and self-regulation, demonstrating how students assumed responsibility for structuring learning in the absence of institutional routines.

Cognitive and analytical skills

It was established that during Covid-19 pandemic, cognitive and analytical skills played a big role in ensuring effective SDL.

The ability to solve problems and think critically helped students to navigate the uncertainty and challenges of Covid-19 pandemic. The study participants emphasized the importance of these SDL skills in high-pressure environments such as the Covid-19 pandemic. One of the students during focus group discussion affirmed this viewpoint:

> As an ODeL student at Zimbabwe Open University, I faced unexpected challenges such as technological issues, access to resources or disruptions to study environment. My ability to address these problems helped me to continue learning effectively in the absence of direct support from lecturers.

The implication of the above quote is that critical thinking skills helped students to navigate the challenges of Covid-19 pandemic. Another student added that:

> Cognitive and analytical skills are self-directed learning skills that helped me to evaluate which learning methods worked best for me at home. I realized that watching recorded lectures and listening to audios at night, when the house was quiet improved my concentration.

This means that cognitive and analytical skills helped students to quickly adjust to new learning environments. When responding to the same question during an interview session, one of the lecturers mentioned the following:

> Students need to have cognitive and analytical skills for self-directed learning to be effective in crisis situations. During Covid-19 pandemic, I noticed that students who had cognitive and analytical skills quickly adjusted to new learning environments, figuring out how they could learn through videos, digital texts and forums.

The above extract suggests that the ability to solve problems and think critically is crucial for continuing to learn effectively in crisis. A quality assurance coordinator during an interview session confirmed that:

> Cognitive and analytical skills played an important role during Covid-19 pandemic in helping students filter out unreliable information online without the influence of lecturers. Students could select crucial information independently.

This implies that cognitive and analytical skills functioned as adaptive tools enabling students to evaluate learning strategies, filter information and respond to uncertainty-key dimensions of cognitive presence within CoI framework

Communication and technological proficiency

The study established that communication and technological proficiency skills were vital for SDL during Covid-19 pandemic. The ability to communicate effectively in digital environments

(emails, forums, video calls) became essential and helped students to navigate virtual learning platforms, access course materials and communicate with instructors and peers during the pandemic. This was confirmed by students during focus group discussion. One of the students pointed out that:

> During the pandemic, technological skills enabled ODeL students using self-directed learning strategy to navigate learning management systems, join virtual classes or access digital libraries when physical resources were unavailable.

The excerpt reflects that, communication and technological proficiency skills helped students during Covid-19 pandemic to participate in online group discussions, reaching out for emotional or academic support. A lecturer during an interview session added that:

> Communication and technological proficiency are self-directed learning skills that helped students in ODeL institutions like Zimbabwe Open University to stay on track. Many students after the disruption of physical campuses used these self-directed learning skills to reach out to peers, tutors or support staff for academic or emotional support.

A quality assurance coordinator highlighted that:

> With physical interaction limited during the Covid-19 pandemic, effective communication via email, chats and video calls became crucial for asking questions, attending virtual classes and staying connected. In other words, students with communication and technological proficiency skills were more likely to form virtual study groups, which helped to reduce isolation and improved understanding.

These skills supported social presence and mitigated isolation, reinforcing SDL by enabling collaboration, peer support and access to institutional resources during campus closures.

Discussion

According to Tlili et al. (2022), self-management and self-discipline are indeed crucial SDL skills during crisis situations. These enable individuals to effectively navigate challenges, adapt to changing circumstances and maintain focus and composure under pressure. From a higher education perspective, these skills allow students to manage their time, organize their studies and maintain focus despite potential distractions, ultimately leading to greater motivation and improved learning outcomes. Munro (2024) believes that by developing these skills, students can become more effective self-directed learners who take control of their learning journey, achieve their goals and develop a sense of agency and confidence. Aligned to Self-Directed Learning Theory, Knowles highlights that learners are responsible for initiating and regulating their own learning. In the case of

students, this meant setting clear goals for lessons, selecting appropriate resources and adapting to technology platforms to maintain engagement with other students. Self-directed learning theory emphasizes the ability of individuals to take responsibility for their own learning process, self-monitoring progress and adjusting when necessary. The concepts were particularly relevant during the pandemic, as students had to rapidly adapt to new modes of learning in a largely remote environment. Although there has been some research on self-directed learning, particularly on self-management and self-discipline skills as shown from the discussion above, this research study's unique contribution to the scholarship of self-directed learning is exploring self-directed learning skills for ODeL students in crisis.

In line with the study's findings, Elderson-Van Duin et al. (2023) argue that cognitive and analytical skills are crucial to human adaptability, especially in unpredictable or high-pressure contexts such as crisis. The implication of the above fact is that, cognitive and analytical skills are essential tools for students to navigate chaotic environments. A study by Dahal and Bhat (2024) established that self-directed learning skills particularly, cognitive and analytical skills are powerful and effective tools for navigating the ever-demanding field of the healthcare profession. Promotion of crucial cognitive skills such as critical thinking and creative thinking within educational settings can enhance self-directed learning in high pressure environments (Dahal and Bhat, 2024). From the above discussion, there is evidence that cognitive and analytical skills facilitate self-directed learning. Self-directed learning theory is an excellent lens to explore the development of cognitive and analytical skills, particularly when it comes to maintaining teaching and learning during Covid-19 pandemic. Using cognitive and analytical skills, students became more responsible for their own learning and more capable of handling the complexities of a rapidly changing educational landscape. As a result, cognitive and analytical skills were indispensable for maintaining effective teaching and learning during the Covid-19 pandemic.

Tlili et al. (2022) assert that the ability to communicate effectively and use of technology competently empowers individuals to take charge of their learning in chaotic, high-pressure, unpredictable or disrupted contexts such as natural disaster, pandemic, wars or institutional breakdowns. The above lines imply that in high pressure environments, communication and technological skills are facilitators of self-directed learning. These skills enable students to access knowledge, maintain social and emotional connections and respond adaptively to change. Shao et al. (2022) confirm that, investing in the development of communication and technological skills before and during crises can significantly enhance learners' autonomy, resilience and capability to continue learning amid adversity. In other words, when educational institutions are closed, learners or students should make use of online learning platforms such as Zoom, Google Classroom or WhatsApp to self-manage learning in high pressure environments. Self-directed learning theory offers a rich framework for understanding how students navigated the challenges of remote learning during Covid-19 pandemic. Self-directed learning theory emphasizes the autonomy and responsibility of the learner in managing their learning, which in the context of a global shift to online

education, required new and heightened skills in technology and communication. The pandemic forced a rapid shift to online education, and self-directed learning theory provides a meaningful way to explore the specific skills and strategies that were employed by students to maintain the continuity of learning.

The findings demonstrate that SDL skills acted as mechanisms of resilience in crisis learning. Unlike studies that focus primarily on access and technology, this study extends SDL constructs by showing how learner skills actively sustained engagement in prolonged disruptions. By integrating SDL and CoI theories, the study illustrates how autonomy, cognitive engagement and social connectivity interacted to maintain learning continuity during Covid-19.

Limitations and suggestions for future research

This study is limited by its single institution case study design and relatively small sample size, which may restrict the generalizability of the findings. Future research could adopt comparative or longitudinal designs across multiple ODeL institutions and crisis contexts. Quantitative approaches may also be used to examine the relationship between SDL competencies and academic performance during disruptions

Conclusion

This study highlights the central role of self-directed learning skills in enabling ODeL students to navigate crisis situations. The findings contribute to global SDL scholarship by providing empirical evidence from an African ODeL context, demonstrating how learner agency operates under conditions of sustained disruptions.

Recommendations

In the light of the above findings, the following recommendations are made:

1. Integrate SDL frameworks explicitly into ODeL and teacher education curricula
2. Prioritize digital literacy and communication skill development as crisis preparedness strategies
3. Provide professional development for lecturers on mentoring SDL in online and crisis contexts

Data availability statement

The original contributions presented in this study are included in this article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving humans were approved by College of Education Erc Ref No 7673, University of South Africa. The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study. Written informed consent was obtained from the individual(s) for the publication of any potentially identifiable images or data included in this article.

Author contributions

LM: Conceptualization, Writing – review & editing, Methodology, Investigation, Writing – original draft, Data curation, Formal analysis. JZ: Formal analysis, Writing – original draft, Methodology, Data curation, Conceptualization, Writing – review & editing, Investigation.

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