



## Self-directed learning of rural first-generation South African undergraduates: a social constructionist perspective on autonomy, competence, and relatedness

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### Abstract

This study examined the self-directed learning experiences of rural, first-generation, South African undergraduate students in remote learning, focusing on the development of autonomy, competence and relatedness. Grounded in the Self-Determination theory and a social constructionist paradigm, the study uses an interpretive design to explore how social and cultural factors shape students' learning experiences. Fifteen students were purposively selected and interviewed, revealing personal growth, time management, adaptation, and independence themes. Findings highlight that remote learning fosters self-reliance, critical thinking and the use of platforms like WhatsApp to maintain peer connections, thereby enhancing autonomy and competence. The study amplifies the importance of targeted support programs and online platforms to build technical skills, manage time, and create a sense of community. These insights contribute to understanding how autonomy, competence and relatedness are developed in remote learning environments, and inform interventions to support rural First-Generation Students.

**Keywords:** Remote learning; rural First Generation Students; independent learning; autonomy; relatedness; competence

### Introduction

Davis, Maurici-Pollock and Hands (2023) describe FGSs (First Generation Students) as individuals who are pursuing a higher education degree and whose parents or guardians do not have a post-secondary qualification. In South Africa, rural FGSs undergo multiple transformations upon entry into university. These factors encompass, but are not limited to, the transition from secondary school to university schedules; variations in learning styles; differences in teaching methods; social adjustments; and changes in the learning environment, all of which contribute to the overall learning experience. Compounding these challenges was the COVID-19 pandemic, a global crisis that precipitated significant disruptions across numerous sectors worldwide. Rural learners transitioning into the university system during this period have more challenges because South African rural schools are severely challenged by a lack of adequate resources, including the internet and its usage,

amongst several other social inequality issues (Dube, 2020). More evidence of the effects of transitioning from university to home is a study conducted by Visser and Law-Van Wyk (2021:234), which indicated that students experienced academic isolation, not feeling in control, and being isolated from friends. Moreover, their study reported students' significant difficulty in coping with the psychological challenges of the lockdown, which was a traumatic experience for some students.

Separate studies conducted by Sevnarayan (2022), Livingston et al. (2022) and Alex (2022) found that rural first-generation undergraduate students often faced significant obstacles to academic success. These barriers included unreliable internet access, limited technological resources, difficulty adjusting to virtual classrooms, financial challenges, limited access to academic resources, and a lack of support systems. Despite these difficulties, there is evidence to suggest that first-generation rural

students have developed important skills because of their experience during the lockdown. Moreover, the pandemic has provided an opportunity for these students to become more self-directed and resourceful in their approach to learning.

### ***Problem Statement***

Rural first-generation South African undergraduate students face unique challenges in remote learning environments, particularly in developing essential psychological skills such as autonomy, competence and relatedness (Deci & Ryan, 2000). These challenges are exacerbated by social and cultural factors that influence their learning experiences (Smit, 2012; Cross & Adam, 2007). There is a need to understand how these students navigate remote learning, how they develop self-directed learning skills, and what interventions can be designed to support their academic success in these settings (Bawa, 2016; Morrow, 2009).

Given these challenges, this study aims to shift the focus from the adversities faced by rural FGSs to exploring the benefits of the online learning experience for rural first-generation undergraduate students, particularly through the lens of the self-directed learning approach they adopted to cope with the challenges they faced. Through this exploration, the authors aim to shed light on how these students emerge as autonomous, competent learners despite their challenges. This shift in focus is pivotal for not only understanding their unique experiences, but also for informing strategies that can better support their academic success and well-being in a rapidly evolving educational landscape.

Moreover, the exploration of online learning experiences for rural FGSs is not only significant in terms of individual growth, but also holds broader implications for the equitable accessibility of education in rural communities. As the study delves into the self-directed learning experiences of these students, it strives to uncover insights that contribute to the ongoing discourse on bridging educational gaps and fostering a more inclusive learning environment.

By understanding the unique experiences and strengths of these students, universities and

other higher education institutions can work to better support their academic success and well-being. This is particularly relevant in rural communities, where access to educational resources and support is limited. Online learning may provide a more equitable platform for students in rural areas to access education and develop the necessary skills to succeed professionally (Mashau & Nyawo, 2021). This study will visit the contexts of first-generation rural undergraduate student experiences through the following objectives:

I. To determine the benefits of online learning experienced by rural first-generation undergraduate students through a self-directed learning approach.

This objective aims to explore the positive outcomes that rural first-generation undergraduate students gained from engaging in online learning independently. By identifying these benefits, the study will highlight how self-directed learning in an online environment can empower students, fostering their academic growth, resilience and adaptability. Understanding these benefits is crucial for recognising the potential of online learning to enhance educational access and outcomes for students who may face geographical, social and economic barriers.

II. To establish how rural FGSs developed autonomy, competence and relatedness through self-directed online learning.

This objective seeks to examine the processes by which rural FGSs cultivate essential psychological skills—autonomy, competence and relatedness—through self-directed learning in an online setting. By investigating these developments, the study will provide insights into how online learning can support the holistic growth of students beyond academic achievement by nurturing their independence, self-efficacy and social connections. These insights are significant for educators and policy-makers to design interventions that promote the psychological well-being and academic success of rural FGSs in remote learning contexts.

## Literature review: First-Generation Students (FGSs)

Pre-Covid research highlights the ways in which FGS are disadvantaged (Mates, Milican & Hanson, 2021:2). These broad areas are identified by Ives and Montoya (2020) as structural barriers and personal characteristics that negatively affect their progress and transition at university. For example, FGSs are more likely to receive limited support and limited guidance from their families, due in part to parents' lack of experience with college attendance and the college application process (Xing & Rojewski, 2020; Gibbons & Borders, 2010; Moschetti & Hudley, 2015). Moreover, they are less inclined to seek academic assistance from staff and tend to under-utilise other resources (Beattie & Thiele, 2016; Hicks & Wood, 2016). More importantly, they are less likely to have the skills required for independent online study (Barraket & Scott, 2001; Gorard & Selwyn, 1999). Moreover, these students often face social and academic barriers when considering college attendance, namely poor academic preparation, lack of role-models and inadequate financial support (Chen, 2016; Falcon, 2015).

Furthermore, once enrolled at university, they are less likely to persist to graduation (Xing & Rojewski, 2020; Kena et al., 2015; Lohfink & Paulsen, 2005). Another area of considerable concern was the potential implications of the online environment for student socialisation (Raaper & Brown, 2020). Important in determining the choice of university (Hagel & Shaw, 2010), socialisation is the chief factor in students opting for face-to-face teaching. Some first-generation university students experience academic and social challenges as they transition into higher education because they may not be familiar with institutional norms and practices, and do not have the personal networks to ask for guidance (Ives & Castillo-Montoya, 2020; Pascarella et al., 2004). Compared to their continuing-generation peers, FGS encounter more academic and career challenges (Ma & Shea, 2019), thus leading to negative college expectations and decreased academic preparation and self-efficacy (Garriott et al., 2013; Gibbons & Borders, 2010). Informational and emotional support are critical to academic and career development and can influence decisions

regarding college attendance (Bell et al., 2009; Moschetti & Hudley, 2015). Emotional support and encouragement from students' close networks (e.g., parents and friends) influence their social behaviours as well as academic aspirations and achievement (Holland, 2011; Leonard, 2013). According to Gibbons and Borders (2010), FGSs also perceive barriers related to family issues, racial/ethnic discrimination, lack of college-educated role-models, lack of college-planning guidance, and lack of preparation and/or desire in terms of college-going. Students with higher socioeconomic status and a more privileged educational background have higher occupational expectations and support from their family (Gottfredson, 2002; Shahidul et al., 2015; Um, 2021). Conversely, the aspirations of students from lower socioeconomic backgrounds are often discouraged by limited accessibility and possibilities. As such, the lack of resources for FGSs heightens the need for academic, social and government support for them (Gibbons & Borders, 2010; Gilfillan, 2018).

In a study conducted by Mates et al. (2021), which examined how FGSs coped with COVID-19 whilst studying online, the results indicate that FGSs are less likely to have a device to work on. Moreover, a considerable number of students were unable to work during the day and could only access a quiet space suitable for online learning in the evening. A large portion of the FGSs had family responsibilities, placing added pressure on study time. In addition, fewer FGSs felt confident engaging in online lectures. The results further indicate that FGSs did not communicate with their classmates as often as the non-FGSs did. In terms of university support networks, FGSs were already less likely to know someone on their course that they felt confident talking to about course-related issues. This potentially makes the transition to online or remote learning even more difficult for FGSs.

### *Self-directed learning*

Self-directed learning is a process by which individuals take responsibility for their learning and engage in activities that enable them

to set goals, plan and monitor their progress, and reflect on their learning outcomes. This approach to learning is particularly relevant in rural contexts where access to contact sessions may be limited and learners need to take more ownership of their learning experiences. In South Africa, rural students face numerous challenges in accessing education, including inadequate infrastructure and limited resources. As a result, self-directed learning has become an important strategy for rural students to develop autonomy, competence and relatedness. According to a study by Fourie and Van de Westerhuizen (2018), self-directed learning is an effective strategy for promoting learning and development among rural students in South Africa. The study found that self-directed learning can help students develop a sense of responsibility for their own learning and take a more active role in their education.

Self-directed learning has been linked to improved academic achievement (Bouchard & Trudeau, 2018). This is particularly important for rural students who may have limited access to educational resources and opportunities. According to Cervantes and Gillian-Daniel (2016), self-directed learning can increase students' motivation and engagement in their own learning. This is especially relevant for rural students who may feel isolated from their peers and community. One of the crucial benefits of self-directed learning is that it can promote the development of critical thinking skills by encouraging students to think deeply and reflectively about their learning (Bouchard & Trudeau, 2018). Heiman (2018) found that it can also foster creativity and innovation by allowing students to explore topics that interest them and to approach learning in their own unique way. Bouchard and Trudeau (2018) confirm that students develop independence and self-reliance, which are particularly important for rural students who may have limited access to educational support systems.

A study by Machethe and Monobe (2021) found that self-directed learning can be particularly effective in rural contexts where traditional teaching methods may not be appropriate. The study found that self-directed learning can help overcome language and cultural barriers and can enable students to be more engaged in their learning.

### ***Self-directed learning and coping with challenges***

Despite the daunting challenges that rural FGSs face, some studies reveal that the need to achieve success became the catalyst for autonomy, independence, competence and relatedness (Gibbons & Woodside, 2014; Vuong, Brown-Welty, & Tracz, 2010). For example, one coping strategy that has been identified is the use of social support networks as FGSs often rely on their families and peers for emotional and practical support (Andrews, 2020). These students also reported that peer support groups and online tutoring services provided a sense of community and relatedness during remote learning. Andrews study suggests that fostering social support networks could help first-generation undergraduate students cope with the challenges of online learning and become an enabler towards self-directed learning. Unfortunately, the use of learning management systems and e-learning platforms is not particularly favourable due to their limited flexibility and administrator-imposed limitations as they are defined through the settings of the administrator (Pavlovic, Vugdelija & Kojic, 2015). Students would rather opt for social media platforms as they incorporate a range of applications and tools to deliver a significant number of resources to assist students on a course (Janjic, Milicic & Spariosu, 2012).

Another coping strategy identified in the literature is the use of time-management and study skills. FGSs often lack access to resources and have limited time to dedicate to their studies due to family and work responsibilities. However, some students reported that remote learning has provided them with more flexibility and autonomy over their schedules, allowing them to better manage their time and prioritise their studies. (Moschetti & Hudley, 2015). According to a survey by the Hope Centre for College, Community and Justice (2021), FGSs reported that they found remote learning helpful because it allowed them to study at their own pace and better manage their time.

### ***Social and cultural context***

The Social Constructionist view of rural FGSs emphasizes the importance of how the

complex social and cultural contexts shape their experiences and identities. The intersection of their rural and first-generation identities creates a unique set of challenges that can affect FGSs' academic and social experiences (Petersen, 2019). These challenges may include limited access to academic resources and social support networks, as well as difficulties navigating the academic culture and norms of the university (Petersen, 2019). At the same time, rural FGSs in South Africa may draw on their cultural backgrounds and experiences to navigate these challenges. They may form support networks with students who share similar experiences, or they may develop their own strategies for adapting to university life (Hodgson & McLean, 2015). Some students may prioritise their studies over social activities, while others may seek out mentors or role models who can provide guidance and support.

Within the context of this study, rural FGSs' social and cultural context may limit their sense of autonomy as they may come from communities where traditional values and expectations hold strong sway. These students may feel pressured to conform to the expectations set by their families and communities, which can make it challenging to assert their independence and make decisions that differ from what is expected of them. Similarly, their sense of relatedness is also impacted as they may feel isolated and disconnected from the larger academic community. Furthermore, they may experience cultural shock as they adjust to the new social and cultural norms of being part of a university. This may result in a sense of detachment from familiar relatedness and an attachment to a new sense of relatedness, representing new social and cultural patterns.

Additionally, rural FGSs may come from communities where academic achievement is not highly valued, which can lead to self-doubt and a lack of confidence in their abilities and competence.

### **Theoretical views**

Constructs of the Self-Determination Theory (SDT) provide the theoretical underpinnings and lens through which the self-directed learning of rural FGSs is approached.

These constructs are identified as autonomy, relatedness and competence. The constructionist philosophy used in the study is closely linked to the SDT, particularly in how both perspectives conceptualise human motivation and agency.

SDT seeks to explain why individuals engage in certain behaviours and how different types of motivation affect their behaviour and well-being (Ryan & Deci, 2017). According to SDT, individuals have innated psychological needs for autonomy, competence and relatedness, and satisfying these needs is essential for motivation, well-being and optimal functioning (Deci & Ryan, 2008). SDT emphasizes the importance of internalised motivation, which occurs when individuals engage in behaviour that aligns with their personal values and interests, rather than because of external rewards or pressures (Deci & Ryan, 2000). A Social Constructionist philosophy also recognises the importance of personal agency and the role of social context in shaping individuals' behaviour and experiences (Vygotsky, 1978; Gergen, 2015). This perspective posits that individuals are active agents who construct their reality through their interactions with others and through their own interpretations and meanings (Berger & Luckman, 1966). However, whilst SDT emphasizes the importance of internalised motivation, Social Constructionism highlights the role of the social and cultural context in shaping individual behaviour and experience. In the case of rural FGSs in South Africa, the social and cultural context may have a significant impact on their motivation and their ability to succeed academically. A combined approach that considers both internal and external factors, such as the social and cultural context of rural first-generation undergraduate students in South Africa, can provide a more comprehensive understanding of their adaptive learning processes. By using SDT and Social Constructionism in tandem, researchers may gain a deeper understanding of the psychological needs and social contexts of these students, which can inform interventions and support to help them succeed academically and personally.

### **Methods**

This study uses a Constructionist philosophy that posits reality as socially constructed through individuals' experiences and interactions, and it emphasizes the importance of exploring the meanings and interpretations that people give to their experiences (Berger & Luckmann, 1966; Gergen, 2015). In the current study, a qualitative research approach using interviews enabled the researchers to uncover the social and cultural processes that contribute to the construction of reality and to identify how individuals negotiate and interpret their experiences considering their social and cultural contexts (Braun & Clark, 2019; Denzin & Lincoln, 2011). The study followed an interpretative research design which emphasizes the understanding of the world through the meanings that individuals ascribe to their experiences. It assumes that reality is socially constructed and that researchers should focus on the context-specific, subjective experiences of participants (Creswell & Poth, 2018; Merriam & Tisdell, 2016). The semi-structured interview schedule was constructed based on a combination of the reviewed literature and the researchers' reflections on interactions with students over the period when online learning became mandatory during the pandemic. The purposive sampling strategy used purposefully sought out rural FGSs who engaged in online learning from their homesteads during COVID-19. Hennink and Kaiser (2022) found that saturation can be achieved within nine to seventeen interviews in studies with a relatively homogenous study population. This study obtained the responses of 15 students.

Participation was entirely optional, and students could opt out of the interview process at any given time. Interviews were conducted by invitation, whereby students were first identified once they met the criteria for the study. Interviews were set up and conducted on an electronic platform. Participants were provided a link to the interview session, which was recorded with the permission of each participant.

The responses were viewed as transcripts which were broken into meaningful units of analysis. Open coding was applied to the responses for each question. The codes were identified by the meaningful 'phrases' or key aspects of the 'transcript'. Potential meanings

emanating from these responses were captured. The data was then read through again and the codes assigned to the 'phrases' or key aspects were examined, compared and categorised to draw concrete meaning from them (Lee, 2020). The themes emanating from this process formed key aspects of the discussion.

### Findings

The following themes were generated from the interviews conducted. The responses have been coded accordingly.

#### *Personal Growth and Skill Development:*

As a result of the challenges that rural students encountered during the rapid online learning transition, students reflected on their personal growth.

*Self-directed learning/Independence and Skills Development:* "taught myself how to operate online"; "taught me to do things for myself"; "taught myself to use the laptop on my own".

*Adaptability/Overcoming Challenges and Personal Growth:* "took me out of my comfort zone"; "I learned to fight every obstruction".

*Personal Growth/Empowerment:* "Online learning made me wise"; "I learned to multitask".

Studying remotely allowed rural undergraduate students to gain valuable experience and knowledge, which has enabled them to become more discerning and insightful. Students developed new technical skills and became more proficient with technology, which is useful in both academic and professional contexts. Stepping out of their comfort zones helped them build confidence and resilience. This also implied that students had to take responsibility for their own learning, which can be empowering and help build self-reliance. The range of skills and qualities that students developed made studying remotely a valuable and transformative experience for many rural undergraduate students.

The statements about personal growth and skills development that emerged from rural FGSSs' experiences with online learning align with the principles of autonomy, relatedness and competence. Regarding autonomy, students reflected on how they had to take responsibility for their own learning and develop new skills on their own, such as operating online tools and using laptops. This sense of control over their learning and the ability to perform tasks independently can contribute to a sense of empowerment and self-reliance, which are key components of autonomy. In terms of relatedness, the quotes suggest that students may have had to seek support and assistance from others to navigate the challenges of online learning, but they also developed a sense of connection with others who were going through the same experience. This sense of shared struggle and achievement can contribute to a sense of relatedness and social connection. Finally, the statements about skills development and personal growth are indicative of the students' competence. Through the challenges of online learning, they developed new technical skills and became more proficient with technology, which can be valuable in both academic and professional contexts. Furthermore, stepping out of their comfort zones helped build their confidence and resilience, which are key components of competence.

#### ***Time-Management:***

*Early Rising:* "I had to wake up very early".

*Efficient use of Time:* "I learned to manage my time which gave me lots of free time".

*Night Study:* "I learned to study at night".

Whilst this theme was initially viewed as a challenge, students realised the need to adjust their schedules and routines. This resulted in setting a productive tone for the day and ensured that there was sufficient time to study, with less time spent on non-essential tasks. Online learning gave students more flexibility as many resorted to studying at night. They were also able to take advantage of the

quiet hours to avoid distractions, which helped them focus.

In terms of autonomy, the statements indicate that students had to take control of their schedules and adjust their routines to accommodate online learning. This sense of control over their time and learning can contribute to a sense of empowerment and self-reliance. Relatedness is seen through the students' experience of adjusting their schedules, which may have been shared by other students in their class, creating a sense of connection and shared experience. The flexibility of online learning may have allowed students to collaborate with others more easily and work around each other's schedules, thereby promoting a sense of relatedness and social connection. The statements about learning to manage time, studying at night, and prioritising tasks reflect the students' competence. By developing effective time-management skills, they were able to optimise their study time and reduce distractions. This ability to focus and manage their time effectively is indicative of their competence. The theme of time-management and flexibility in online learning suggests that students were able to develop autonomy, relatedness and competence by taking control of their schedules, connecting with others and developing effective study habits.

#### ***Adaptation to remote learning***

*Utilising Recordings:* "I adapted to using recordings".

*Personalised learning style:* "I found a learning style that suited me".

*Adjustment to technical challenges:* "I had to adjust with space-time and network issues and develop a style bearing these challenges in mind".

*Peer Communication via WhatsApp:* "WhatsApp helped me stay in contact with other students".

Students learned to adapt to an uncomfortable new normal, which challenged them to resolve many issues on their own. This was most likely dependent on a variety of

factors, including their individual circumstances, the resources available to them, and their previous experience with technology. Students also established new routines to accommodate the changes in their learning environment. In the absence of frequent interactions with their lecturers, students resorted to communicating with their peers, often using WhatsApp as a communication platform. Autonomy is evident in students' statements about adapting to remote learning by finding a learning style that suited them and adjusting to space, time and network issues. These adaptations required students to take control of their learning and develop solutions that worked for them. Relatedness is reflected in the students' use of WhatsApp to stay in contact with others. By communicating with their peers, students were able to establish a sense of community and shared experience, which can promote motivation and engagement in learning. Competence is evident in the students' ability to adapt to a new learning environment and find ways to overcome the challenges they face. By developing new routines and learning styles, students were able to optimise their learning experience and achieve academic goals despite the obstacles they experienced.

### ***Independent Learning***

*Self-Reliant Thinking:* "I had to think for myself"

*Personalised Learning Approach:* "Develop my own way of learning remotely"

*Self-Sufficiency:* "I had to work by myself to survive"

*Increased Independence and Initiative:* "I became independent, I know how to go the extramile. Before I was spoon-fed".

Online learning forced rural students to rely on their critical thinking skills to solve problems. This developed their self-reliance and confidence in their abilities to work independently. Students became experimental, trying out different learning styles that would

suit them, which implied their ability to become self-sufficient. The ability to manage their time, deadlines and online learning activities without the structure and support provided by a traditional classroom environment was evidence of their independence and resilience. Moreover, students began to take responsibility for their own learning, which taught them self-discipline and self-motivation. This theme aligns with the principles of autonomy, relatedness and competence as rural FGSs were forced to adapt to online learning and had to become more self-sufficient, independent and responsible for their own learning. Moreover, this further suggests that individuals have an innate psychological need to feel in control of their own lives and experiences. Although students were physically distanced from their classmates and lecturers, they remained connected through various online platforms such as WhatsApp, which fulfilled their need for relatedness. This also provided students with a sense of community and support.

### **Discussion**

The SDT framework provided the theoretical lens through which the students' experiences were interpreted, focusing on the development of autonomy, competence and relatedness. The Constructionist philosophy guided the methodological approach, allowing the study to capture the social and cultural distinctions that influence these psychological constructs. The findings, derived from thematic analysis, demonstrated how these theoretical constructs manifested in the students' real-life experiences, offering important insights into their self-directed learning journeys in remote environments. This integrated approach ensures that the study's outcomes are deeply rooted in both theoretical and empirical understandings of the students' educational experiences.

To ensure the continuation of the academic year during the pandemic, South African universities transitioned to online learning. However, this shift had negative consequences for rural students, as reported by Sevnarayan (2022), Livingston et al. (2022) and Alex (2022). Despite these challenges, this study provides evidence that some students experienced an increase in self-



directed and autonomous learning during this period. This finding aligns with the principles of the Self-Determination Theory, which proposes that fulfilling an individual's psychological needs for autonomy, competence and relatedness leads to greater well-being and motivation (Ryan & Deic, 2000). The online learning environment may have provided students with the necessary conditions to satisfy their need for autonomy by allowing them to control their learning pace, develop their own study habits, and make decisions regarding their time and resources. This is supported by Mashau and Nyawo (2021), who suggest that online learning provides opportunities for learners to validate their emerging abilities and skills, and access the necessary support to enhance their learning. Independent learning helped students develop self-reliance, self-discipline and resilience whilst remaining connected to their peers and building their competence in new learning environments.

The findings of this study shed light on the self-directed learning experiences of rural first-generation South African undergraduate students in remote learning environments. The discussion section will explore the key themes that emerged from the analysis of the interviews conducted with 15 students, namely personal growth and skills development, time- management, adaptation to remote learning, and the development of independence.

One of the significant themes that emerged from the study is personal growth and skills development. The participants reported that the online learning experience presented them with opportunities to develop new skills and acquire knowledge. They mentioned that they had to take more responsibility for their learning, engage in independent research, and seek out resources to supplement their coursework. This demonstrates their self-directed approach to learning and their motivation to succeed despite the challenges they face. The findings align with previous research (Aljohani, N. R., & Farrow, R. 2020) that highlights the benefits of self-directed learning in promoting academic achievement and fostering critical thinking skills.

Time-management was another important theme that emerged from the study. Many

participants mentioned that the flexibility of online learning allowed them to better manage their time and balance their academic responsibilities with other commitments, such as work or family responsibilities. They highlighted the importance of setting goals, prioritising tasks and creating a structured schedule to stay organised and meet deadlines. This reflects their autonomy and ability to take control of their learning process, which is an essential aspect of self-directed learning.

The participants also discussed the challenges they faced in adapting to remote learning. Limited access to reliable internet and technological resources was a common barrier mentioned by the participants. Some students had to travel long distances or find alternative locations to access stable internet connections. Despite these challenges, the participants demonstrated resilience and resourcefulness in finding ways to overcome these obstacles. They sought support from their peers and utilised online platforms and social media to connect with their classmates and access additional learning resources. This highlights the importance of social support networks in facilitating self-directed learning amongst rural FGSs.

Lastly, the development of independence also emerged as a prominent theme in the study. The participants expressed a sense of empowerment and confidence in their abilities to navigate the online learning environment. They mentioned that the experience of being self-directed learners helped them to develop independence and self-reliance. This is particularly significant considering the social and cultural context in which these students are situated, where traditional values and expectations may limit their autonomy. The findings suggest that online learning provided a platform for these students to assert their independence and make decisions aligned with their own goals and aspirations.

This further highlights the resilience, adaptability and self-directed learning capabilities of rural first-generation South African undergraduate students in remote learning environments. Despite the challenges they faced, these students demonstrated a strong desire to succeed and took proactive measures to overcome

obstacles. The findings support extant literature on the benefits of self-directed learning and the role of social support networks in facilitating academic success.

### **Recommendations**

The following recommendations are made based on the findings and themes that emerged from the study:

#### ***Enhance Support for Independent Learning:***

The theme of Independent Learning highlighted students' need to become self-reliant and to develop personalised learning approaches. By equipping students with these skills, institutions can better prepare them for remote learning environments and future academic challenges. It is recommended that institutions provide resources and training to help students develop independent learning skills. This could include workshops on self-directed learning strategies, time-management, and problem-solving techniques.

#### ***Strengthen Time-Management Resources:***

The Time-Management theme revealed that students had to adapt their schedules and develop effective time-management practices to succeed. Providing support in this area can help students balance their studies with other responsibilities, leading to improved academic performance and well-being. It is recommended that structured guidance be offered on time-management through online tools, workshops and mentoring programs. Additionally, it is important to encourage students to create and follow personalised schedules that align with their academic goals.

#### ***Facilitate Adaptation to Remote Learning:***

The Adaptation to Remote Learning theme showed that students had to find ways to adjust to the unique challenges of remote learning. Institutions should continue to support these efforts by offering resources that cater to diverse learning styles and technical needs. It is recommended that institutions provide flexible learning options and resources to help students

adapt to the challenges of remote learning. This includes access to recorded lectures, support for dealing with technical issues and fostering peer-to-peer communication through platforms like WhatsApp.

#### ***Promote Technological Literacy and Access:***

As students emphasised learning to operate online platforms and to use technology independently, enhancing technological literacy and access will further support their academic success in remote settings. Moreover, it is recommended that institutions ensure that all students have access to the necessary technology and are equipped with the skills to use it effectively. This may include providing laptops, offering training sessions on digital tools, and ensuring reliable internet access.

#### ***Develop Peer Support Networks:***

The findings suggest that peer interaction, such as through WhatsApp, played a critical role in helping students adapt. Expanding these networks can foster a sense of community and provide students with additional resources to navigate their learning journey. Hence, encouraging the formation of peer support networks where students can share strategies, challenges and successes related to independent learning and time-management is also recommended. This could be facilitated through virtual study groups or mentorship programs.

#### ***Continuous Monitoring and Feedback:***

Continuous assessment and feedback can help identify students who may be struggling with the transition to independent and remote learning, thus allowing for timely interventions. To achieve this, it is recommended that educational institutions implement systems for the continuous monitoring of students' progress in adapting to remote learning and managing their time effectively. Additionally, it is advisable to provide regular feedback and offer additional support when needed.

By implementing these recommendations, educational institutions can better support students in developing the skills and resilience needed to thrive in remote learning environments.

## Conclusion

This study provided valuable insights into the self-directed learning experiences of rural first-generation South African undergraduate students in remote learning environments. The findings highlight the importance of autonomy, competence and relatedness in the learning process and shed light on how these students develop these psychological skills.

The personal growth and skills development observed amongst the students reflect the enhancement of their competence as they acquired new technical abilities, managed time effectively, and adapted to online learning. Their autonomy was evident in the way they took control of their learning, made independent decisions, and developed self-reliance. Moreover, the role of relatedness was highlighted using social support networks, such as peer connections via platforms like WhatsApp, which helped students maintain a sense of community and overcome the challenges of remote learning.

The discussion of the findings highlights the personal growth and skills development that students experienced through their self-directed learning approach. The study also emphasizes the role of effective time management in balancing academic responsibilities with other commitments. Furthermore, the challenges faced by students in adapting to remote learning and the importance of social support networks in overcoming these challenges were brought to light. Lastly, the study highlights the development of independence amongst the participants, indicating their ability to assert their autonomy and make decisions aligned with their own goals and aspirations.

These findings have implications for higher education institutions and policy-makers in designing interventions and support systems to enhance the self-directed learning of rural FGSs. By recognising the unique strengths and experiences of these students, institutions can better tailor their support services.

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