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Economics Student Teachers' Experiences-as-Lived in a Flipped Pedagogical Approach During Crisis Times

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ABSTRACT

Scholars of teacher education had been reported phenomenology both as a philosophical and methodological construct in reporting students' experiences of learning. In recent decades, research studies on the flipped-class pedagogy strategy have shown that it has significant educational benefits for student learning across subjects and contexts. This research explores, describes, and gains insights into student teachers' experiences as lived during an online teaching course at an open distance e-learning (ODeL) university. An interpretive phenomenological lens was employed using virtual videoconferencing to collect data. A purposive sample of Bachelor of Education (BEd) and Postgraduate Certificate of Education (PGCE) student teachers were selected. This study contributes to the literature on pedagogical dimensions that drives the functionality of flipped learning in an ODeL context. Furthermore, this exploratory study contributes to the practical implementation of flipped learning. Future research may extend the inquiry to other pedagogical dimensions by examining the effect of motivational factors for example the self-efficacy of student teachers.

Keywords Phenomenology, Flipped Pedagogy, Pedagogical Dimensions, Interpretive Phenomenological Analysis, Semi-Structured Interviews

1 INTRODUCTION

The global pandemic had impacted cross-border movements and in the case of South Africa, the government was forced to implement the Disaster Management Act (Republic of South Africa, 2002; 2020) to stop the spread of the virus. Therefore, a national state of disaster was declared to "flatten curve" and the spread of the virus (Koekemoer, De Beer, Govender & Brouwers, 2021). The strict COVID-19 lockdown regulations and protocols had affected the delivery of academic programmes at South African institutions of higher learning. Concerning this study, the author had to follow the revised academic plans and operations (2020-2021) issued by the university's management. To achieve the objectives of the course, the author had to recover "the lost time" by completing the fully online *Teaching Economics* course (12 credits) within a shorter period. Based on this scenario, the author had to increase support to students for "catch-up on lost teaching time". On the module site, frequent announcements and discussion forum questions were posted for self-study. Specific topics from the five learning units were identified and the self-generated videos, recorded MS Teams sessions, selected articles on flipped learning and voice-over PowerPoint presentations were uploaded to assist in completing the required formative assessment activities and preparing for the online summative assessment. All pre-recorded flipped learning sessions on the Moodle learning management system (LMS) were rescheduled to accommodate students and ensure that the course content could be covered in the available time. Based on the mode of course delivery, the revised course

teaching plan had to be accelerated the online facilitation sessions using the virtual Microsoft Teams videoconferencing platform. The intention was to plan more flexible learning spaces that focused on student-centered online classroom teaching methods to promote discovery learning and active participative learning (Milman, 2012; Larcara, 2015). Based on the plethora of evidence reported on flipped learning, the intention is not to define flipped learning but to contextualize this phenomenon as a student teacher-autonomy strategy that promotes self-directed learning, flexible online spaces of learning, creates ample opportunities for active engagement, and provides constructive feedback on assessment activities by the lecturer in an online Moodle LMS. This study is foregrounded on both Edmund Husserl's (1977) seminal text as the early phenomenologist theorist and other African scholars who had published a considerable amount of literature on phenomenology as a philosophy and a theory of practice (Maxine Greene, 1971; Madeleine Grumet, 1987; Max van Manen, 1997; Tetsuo Aoki. 1992; Martin Heidegger, 2010; William Pinar, 2012; Oscar Koopman, 2013; 2016; 2018). These theorists had expanded on Husserl's seminal work, for example from an African perspective, Oscar Koopman's (2018) research focus on the theorization and practical application of phenomenology in science education. Based on the plethora of scholarly publications, cited phenomenology as a philosophical and methodological dimension in reporting students and lecturers' lived experiences in special education (McPhail, 1995); academic literacy skills (Thomson, 2008; Sloan & Bowe, 2014); science education (Koopman, 2013); accounting education (Koopman, 2018) and lecturers experiences in curriculum design (Qutoshi, 2018). Moreover, in recent times, it has emerged as an important area of investigation in teacher education (Koopman, 2016; Koopman, Le Grange & De Mink, 2016; Lewis, 2018; Koopman, 2017; Subramaniam, 2022).

In recent decades, research studies on the flipped-class pedagogy strategy have shown that it has significant benefits for student learning across subjects and contexts (Presti, 2016; Lin, & Hwang, 2018; Koh, 2019; van Wyk, 2020; Alajlan, 2022; Liu & Zhang, 2022; Sanders, Keegan, Culshaw & Tomes, 2022). But, no study could be found that employed a phenomenological lens to investigate the impact of online flipped pedagogy focus on student teachers' experiences-as-lived during times of crisis. After an extensive literature review, a study by van Wyk (2020) focuses on economics education and reported several pedagogical dimensions that emerged from an online flip-instructional design applied in an open distance learning context. This prompted the author to use phenomenology as a research method to explore, describe and gain insights into student teachers' experiences-as-lived and consciousness in an online course, *Teaching Economics*. The reason why I used phenomenology as a methodological lens is to explore student teachers' interactions and consciousness as lived experiences in an online flipped pedagogical strategy based on the phenomenological attributes of perception, imagination, awareness, emotion, desire, and social activity in the course. The study has implications for providing students with learning opportunities as it included designing a flipped pedagogical experience that would assist students in becoming professional economics teachers. Based on this view, an important question is raised: From an interpretive phenomenological viewpoint, how do Economics student teachers experience the pedagogical dimensions that emerged as drivers of flipped pedagogy during the COVID-19 crisis?

2 LITERATURE REVIEW

2.1 Phenomenology as a philosophical lens applied in education

In his seminal text on phenomenological psychology, Husserl

(1977) argues that phenomenology is not a substantive discipline like mathematics, history, or sociology. Rather, it is based on experiences, consciousness, and an understanding of human beings, context, and the subjectivity of reality. Phenomenologists argue that phenomenology is the study of experiences as lived, and it illuminates the structure and meaning of human consciousness (Husserl, 1977; Heidegger, 2010). This Westernized philosophical movement has its roots in Edmund Husserl's transcendental phenomenology but has evolved into various forms of hermeneutical and existential phenomenology through the work of philosophers such as Martin Heidegger, Jean-Paul Sartre, Simone de Beauvoir, Maurice Merleau-Ponty, and Paul Ricoeur. The philosophies of these canonical phenomenological authors appear quite strongly in the academic contributions to modern Western curricula and pedagogies by researchers such as Maxine Greene (1971), Madeleine Grumet (1987), Max van Manen (1997), Tetsuo Aoki (1992), William Pinar (2012) and Oscar Koopman (2013; 2016; 2018), who have all made significant contributions to the fields of curriculum studies, teaching, and learning. Phenomenology is the science of experiences as lived and is both a theory and a method used to explore human interactions and consciousness. For contextualization, phenomenology has emerged as a major European philosophical orientation during the 20th and 21st centuries but several African scholars expanded and applied phenomenology in different subjects such as indigenous knowledge systems (IKS) (Mutema, 2003) and research methodology (Groenewald, (2004). But from a South African perspective, Le Grange (2011) reported how the higher education curriculum needs to be decolonized because of the outcry of the "fees-mist-fall" movement. Furthermore, from a South African perspective, Koopman (2013) in his doctoral study also expanded on this philosophy in the theorization and applied it practically as a method of research in science education.

Since 1974, several studies have reported the use of phenomenological theory and methods in teaching and learning (Denton, 1974; Vandenberg, Leroy Troutner & Max Greene, 1991; Trotman, 2006; Koopman, 2013). There has been a resurgence of interest in phenomenology among scholars at symposia on the philosophy and theory of education (Dall'Alba, 2009). Researchers and scholars such as Van Manen and Adams (2009) refer to phenomenology in an online context and propose that phenomenology be discussed at online seminars to reach a better understanding of attendees' experiences. Symeonidis and Schwarz (2016) report on a study conducted in Finland on the implications of a phenomenological perspective for curriculum reform and the achievement of educational objectives. A study by Webb and Welsh (2019) explored the lived experiences of educational leaders participating in a Scholarship of Educational Leadership course and revealed that phenomenological methods contributed to public discourse in higher education. Recently, various subject-related curriculum studies focusing on flipped learning have been conducted from a phenomenology methodological perspective, among them studies on students' experiences in science education, medicine, nursing, and other fields (Denton, 1974; Vandenberg, Leroy Troutner & Max Greene, 1991; Trotman, 2006; Koopman, 2013; Post, Deal & Hermanns, 2015; Koopman, 2018; Koopman & Koopman, 2018; Park, Park & Chae, 2018; Aslan, 2020; Koopman & Koopman, 2021).

In South Africa, like in the rest of the Western world, phenomenological research in the field of education has been expanded from an African perspective and became the "torchbearers" of

phenomenological pedagogic research in Africa (Koopman, 2013; Koopman, 2016; Koopman, Le Grange & De Mink, 2016; Koopman, 2018; Koopman & Koopman, 2018; Koopman & Koopman, 2021). For example, Koopman and Koopman (2018) published a scholarly text, *The body as blind spot: Towards lived experience and a body-specific philosophy in education.* The authors ask an insightful question: "What do the philosophies of phenomenological scholars such as Husserl, Heidegger, and Merleau-Ponty tell us about education in South Africa?" They conclude that:

> … human consciousness encompasses an individual's totality of experiences with the world. Therefore, lived experience should form the fundamental basis of teaching as a way to illuminate a person's s active-passive participation in the world … The so-called "high knowledge and high skills and they" approach, one of the seven principles that form the basis of South Africa's Curriculum and Assessment Policy Statement, cannot give texture and structure to the body, or teach how to learn to connect with the mind. Instead, it brings greater separation between body and mind, which we have argued forms the basis of Western frameworks of thinking. Such a paradox serves the interests of multinational businesses and the corporate world with a strong focus on consumerist market-driven knowledge (p. 15).

The authors argue that from a phenomenological point of view, the CAPS policy has failed to connect or give explicit "texture and structure to the body on how to learn" as there is a mismatch between the so-called "high knowledge" and "high skills" that the CAPS policy aims to achieve.

2.2 Flipped learning as a student-centered approach

Flipped learning is a student-focused approach characterized by active engagement, experience, and consciousness about their learning. To apply phenomenology as the science of understanding human beings at a deeper level by interrogating the phenomenon related to the lived experiences of student teachers during the pandemic in an online course. This description of phenomenology served as a theoretical guideline for this study on the level of subjective reality of student teachers on their way to becoming professional Economics teachers. Student teachers had their own lived experiences of pedagogical dimensions that emerged during a flipped learning experience at a time of global crisis. This prompted the author to explore student teachers' experiences-as-lived and consciousness during an online teaching course.

Research studies on flipped-class pedagogy have explained that a student-centered approach involves a strategy that actively engages students (Bergmann & Sams, 2012; Presti, 2016; Tanis, 2020). Research has shown that there are educational advantages to flipped learning in face-to-face, blended learning, or distance education contexts. Lin, Wang, and Lee (2022) view the flipped learning approach, as how students use their learning styles and learn at their own pace to achieve course outcomes. Scholars argue that flipped learning creates an environment that allows the interaction between the students and teachers to increase (Bergmann & Sams, 2012; Cope & Kalantzis, 2022), and engages students in learning through application and practice (Khan, Johnston & Ophoff, 2019). According to Tanis (2020), flipped learning increases constructive interaction among students and teachers. The need to leverage technology to mediate communication between faculty and students and among faculties has led to a spike in the use of flipped learning in virtual teaching

applications, especially during COVID-19 (Tanis, 2020). In addition, Nielsen (2020) argues that flipped learning requires students to learn through application and practice, and ultimately brings about self-directive learning. Finally, more in-class time for individual attention and remedial support is an advantage of this strategy (Lai, 2021; Ainsworth, 2021).

2.3 Pedagogical dimensions in the design of a flipped learning experience

This approach emerged where two chemistry teachers, Jonathan Bergman and Aaron Sams (2012) experimented with the inverted classroom teaching strategy to make up for the loss of in-class time. Student contact time was interrupted by a change in the school timetable, either through cultural events, sporting activities, and public school holidays, which had an impact on the completion of the syllabus. Based on chemistry teachers' lived experiences, they planned and used pre-recorded class notes as backup learning material, and in-class practice activities involving relevant subject content to support their learners. Their flipped classroom management strategy increased interaction and participation among the learners. They facilitated their classes by moving to in-class and out-of-class sessions and specifically used selected YouTube videos or self-made videos to support chemistry learners in their learning journey. Their classroom management strategy freed up more in-class time for hands-on learning, expanding individual instruction or adjusting instruction, and remedial support, if needed, to support slow learners. Support could be provided to the group as well as to individual learners, and the learners and teachers could collaborate and share ideas during the in-class time. In-class time could be set aside for more intensive remedial sessions with struggling students. After completed tasks or assignments had been graded, constructive feedback was provided, and teachers and learners could identify the activities, assignments, and tasks that required more attention. A plethora of literature reports that flipped learning as a student-centered approach is based on pedagogical dimensions in support of student learning. The pedagogical dimensions of flipped instructional design are personalized learning, self-directed learning (SDL), collaborative learning, and higher-order thinking skills (Presti, 2016; Lin & Hwang, 2018; Koh, 2019; Lin, Wang & Lee, 2022). Koh (2019) systematically reviewed these pedagogical dimensions and concluded that the dimensions can be used to improve flipped-classroom practices. The dimension of personalized learning in the flipped-classroom environment supports a flexible environment (Wanner & Palmer, 2015; Xhomara, 2022). Flipped learning is a student-centered approach based on flexibility, and is aimed at enhancing personalized learning experiences in a face-to-face, blended or distance learning context (Wanner & Palmer, 2015; Lin, Wang & Lee, 2022). Self-directed learning supports students' autonomy and intentionally drives students' responsibility for their learning (Hadžiahmetović, 2021; Van Alten, Phielix, Janssen & Kester, 2021). Furthermore, flipped learning promotes the dimension of higher-order thinking skills (Huang, Silitonga & Wu, 2022; Liu & Zhang, 2022). To achieve this dimension, the lecturer can use case studies and problem-solving scenarios that require knowledge application. Finally, collaboration and support through group work support active learning through sharing ideas, working together, and coming to mutual agreements in groups (Saqr & Peeters, 2022; Lin, Wang & Lee, 2022; De Back, Tinga & Louwerse, 2021; Sun & Lin, 2022).

3 METHODOLOGY

Before the study commenced, ethical clearance was granted (reference 2020/08/12/90159772/19/AM). Only

fourth-year BEd and PGCE student teachers who were registered for the *Teaching Economics* course were invited to participate in the study. A copy of the ethics certificate and a consent form was sent to all participating students. All students were informed that no student would be forced to participate, and participation would be voluntary. No student would be penalized for non-participation, and students could withdraw from the study at any time. In an exploratory qualitative study, interpretative phenomenological analysis (IPA) was employed as a methodological design (Moustakas, 1994; Smith, 1996). Scholars of IPA argue that this approach focuses on participants' narratives by extracting words in meaning as being and lived experiences (Moustakas, 1994; Smith, 1996; Smith, and Eatough, 2006; Bowe, and Sloan, 2014). Based on this philosophical lens, a semi-structured interview schedule was followed, and data were collected during virtual interviews in Teams videoconferencing sessions (Moustakas, 1994; Sandberg, 1997; Saldana, 2013).

Student teachers who were registered for the year course (n=158) *Teaching Economics in the Senior Phase and Further Education and Training Phase (Senior/FET)* were invited. Only 12 student teachers responded to the invitation; however, four fell ill (Covid-related sickness) and had to withdraw from the study. Consent forms were sent to the students. Before the MS Teams videoconferencing interviews with (n = 8) participants started. Specific codes were applied to protect the identities of participants, which ensured confidentiality, namely FG1, FG2, FG3, FG4, FG5, FG6, FG7, and FG8. After participants had signed the online consent form, the interview sessions were scheduled on Microsoft Teams. Before the interview session, participants were reminded that if they felt uncomfortable, they could withdraw from the study at any time. Furthermore, it was also communicated that no participants would be penalized for withdrawing or non-participating. The MS Teams videoconferencing sessions lasted 45 minutes. As stated earlier, the IPA process of data collection and analysis was followed. Data collection and analysis were based on participants' direct words or first-person accounts of lived experiences, which had been captured and analyzed to determine specific themes. An IPA was conducted to create a narrative account for each participant, which reflected meaning-making, experience, and dialogue through corroborative verbatim statements (Smith, 1996; Smith & Eatough, 2006; Bowe & Sloan, 2014). IPA is a complex and time-consuming process. The following steps in the IPA process were followed:

- *Step 1: Start with multiple reading, listening, and noting the text of each participant*
- *Step 2: Use your transforming notes into converting into emergent themes*
- *Step 3: Seeking relationships and make connections across clustered themes*
- *Step 4: Identifying patterns across themes and subthemes* (Walsh, 1994; Groenewald, 2004; Trotman, 2006; Smith & Osborn, 2008; Pietkiewicz & Smith, 2012; Groenewald, 2004).

These steps were followed to bring the collected data sets in line with the interview questions, which was a time-consuming process. Based on the IPA steps, a phenomenological structural process was followed to analyze data, namely "data explicitation". According to Hycner (1999), explicitation is an "investigation of constituents of the phenomenon while keeping the context of the whole" (p. 161). A simplified explicitation technique was used: the interview questions and transcriptions were read twice, and notes were made. Then concepts and words that occurred frequently in the extracts were

underlined or highlighted with a specific color for easy categorization. Each category used codes that identified each theme. Only related or aligned extracts under the questions relating to each pedagogical dimension (category) of flipped learning were posted. During the final stage of the process, codes and extracted data were categorized according to the themes that had been generated. Transcriptions of the data sets obtained from each FG and recordings of the interviews were emailed to participants to verify whether the transcriptions and recordings were a true reflection of the interviews. This allowed participants to ensure and confirm the correctness of the data set. All true and correct data sets were signed off by participants. If participants found misrepresentations in the extracts, they highlighted the errors. The extracts were then corrected by the author. When phenomenological methods are used, research rigor is based on the notion that credibility is the scientific acid test that ensures the trustworthiness of research findings. Studies report that to ensure the credibility of data presented in any form, the data must meet credibility requirements, that is "content-related credibility, the credibility of the method, and communicative credibility" (Booth, 1997; Bowden, 1996; Sandberg, 2005; Collier-Reed, Ingerman & Berglund, 2009). Without content-related credibility, the researcher cannot get a sound insight into a phenomenon (in this case, student teachers' experiences-as-lived when exposed to flipped learning design in an online module during the COVID-19 crisis). Åkerlind (2005) posits that to implement rigor in content-related credibility, it is a prerequisite to understand the phenomenon under investigation and to have an "open understanding" of the importance of the topic. As said earlier, the interpretative phenomenological process of data collection and analysis was used. Booth (1997) concurs that the credibility of the method "lies in the match between the goals of the study and its design and execution" (p. 136). Finally, if research findings have communicative credibility, it means that the research community has access to the findings and conclusions of the study. This process opens the way for scrutiny, recognition, and judgment of the credibility and legitimacy of the researcher's interpretation of the findings (Booth, 2008; Sandberg, 2005; Åkerlind, 2005).

4 FINDINGS

The following themes were identified after rigorous phenomenological research had been done and the data explicitation process had been completed.

4.1 Promoting personalized learning experiences

Participants agreed that flipped learning is a student-centered approach. They stated that the focus is on students, which places students at the center of the learning. One participant (FG2) actively engaged in his studies. This participant said that he had gained personally and individually from the flipped learning approach:

> *It is a student-orientated approach, which placed us at the center of learning. The focus is on students. Students are placed at the center of the learning process. We became autonomous and life-long learners (FG2 interviewee, text unaltered).*

The findings indicated that it was expected of all students to take responsibility for their learning. Students said they had been empowered and had

become autonomous learners. A participant said she had invested many hours in her studies. She echoed that she reaped success and reward:

> *As a student, I must take responsibility for my learning. I believed personally, the more you invested efforts in your studies, the more success and reward are much greater and sweeter (FG1 interviewee, text unaltered).*

Each team consisted of five participants and could choose to study one of three contemporary economic issues, namely poverty, unemployment, and inflation. Individual team members could select any of these topics, but group members had to work together to present the findings of the group. Participants had to present their findings as part of the team, but they could personalize their own learning goals. One participant mentioned:

> *Flipped learning gives me the freedom to choose my topic as per the learning unit. I decided to be part of a team that focuses on unemployment as a collaborative project. We had one thing in common to achieve our learning goals for the project (FG6 interviewee, text unaltered).*

In flipped learning, out-of-class activities are part of individual work aimed at stimulating personalized learning. 80 percent of participants mentioned that they had decided, either individually or as a group, to prepare certain sections of the work collectively, but individual accountability had been important. Participants said they had controlled their learning and contributed to each project, individually. A participant said:

> *Nobody is forced into a team or a group. We can choose which team you would like to work with. Teams prepare for the in-class virtual videoconferencing sessions. What I like, you can choose when, where, and how to study (FG3 interviewee, text unaltered).*

4.2 An empowering strategy that enhances higher-order thinking skills

70 percent of participants mentioned that they had been empowered by this approach. They felt that flipped learning stimulated critical conversations and enhanced their higher-order thinking skills. They mentioned that they had to reimagine, create and design group projects, and present their findings individually. One participant said he had reflected deeply on some of the topics. He suggested constructive ways of creating strategies:

> *This course empowered me with deep higher-order thinking skills and supported my constructive learning experiences in most of my learning units. The learning unit, design of sound classroom management practices, and implementation of culturally responsive teaching strategies for diversity changed my way of thinking about issues of poverty that most teachers face at schools. Another online discussion forum session, which I think, namely unemployment of youth in our country compelled me to reflect deeply and suggest constructive ways of how to create strategies through our group presentations (FG1 interviewee, text unaltered).*

Participants said that the course had empowered them to create excellent lessons and to practice during in-class sessions. Each team member was given opportunities to practice and present lessons to their peers. One participant said that she had designed economics lessons and posted them on the course site:

> *I could apply economics subject matter content and my pedagogy [flipped learning] to the context where I teach during my teaching placement sessions [school-based learning]. What I meant, in our learning unit, I used the CAPS policy, planning, designing, and presenting my work. Created economics lessons based on our learning. This exercise empowered me with lesson design and presentation skills. What I had learned, the more I practiced my teaching skills, the more I could create excellent economics lessons (FG5 interviewee, text unaltered).*

Another participant expressed the following sentiments:

> *I created economics flipped learning lessons and used team-based learning often in my TP placement sessions. FID enhanced my digital literacy skills and increased my awareness of valuing studying as a distance learner. After every lesson, I had the opportunity to reflect with my mentor (FG8 interviewee, text unaltered).*

Participants said the course had improved their higher-order thinking abilities. Most of the topics promoted critical thinking. Several sensitive topics, such as child labor, poverty, and unemployment, challenged them to become change agents in their respective communities. A participant said the following:

> *This course seriously empowered us with higher-order thinking abilities, in particular in the prescribed contemporary economics topics. These topics as prescribed in the CAPS policy, inflation (grade 12), poverty (grade 10), and unemployment (grade 11) promote critical thinking and higher-order thinking (FG6 interviewee, text unaltered).*

4.3 Increased collaborative learning, sharing, and critical conversation as experiences-as-lived in the course

During the course, Economics student teachers shared their views and reached an agreement on specific issues during both in-class sessions (virtual videoconferencing) and out-of-class sessions (individual accountability). The participants mentioned how they collaborated on topics for out-of-class sessions. Participants made decisions as individuals and gave group inputs on issues discussed throughout the course in the online ODeL space. A participant mentioned:

> *During our team group for out-of-class sessions related to the topic the state poverty in our community, we received learning material as "homework" to prepare for our Microsoft Teams virtual videoconferencing sessions (FG2 interviewee, text unaltered).*

Online virtual videoconferencing and online discussion forum sessions promoted sound peer relationships. Some participants said that flipped learning had created opportunities for collaborative learning in the course. A participant said that students had shared, collaborated, and engaged in online spaces during a time of crisis:

> *I agreed that flipped pedagogy promotes building sound peer relationships. It further creates collaboration and provides an accepted space for learning. We shared, collaborated, and engaged in online spaces during crisis times. Yes, it creates a supportive and loving classroom atmosphere, which says you are most welcome (FG1 interviewee, text unaltered).*

Participants highlighted different flipped learning techniques, particularly team-based learning. Some of them viewed this technique as an excellent teaching tool when teaching macroeconomics, which many learners find extremely difficult. This participant agreed with the previous participant:

> *Let me give you an example, … the session on team-based learning as flipped learning technique; this teaching approach makes it clear that in the classroom setting, the teacher and learners interact on lesson content. Another example comes to mind… In one of my discussion forum sessions on business cycles (macroeconomics), we debated the impact of COVID-19 on business operations. In our deliberations on the virtual videoconferencing Teams platform, lively engagements amongst fellow coursemates challenge our very own assumptions about the pandemic locally (FG5 interviewee, text unaltered).*

4.4 Promoting self-directed learning as experiences-as-lived in the course

Participants thought that self-directed learning supported students' autonomy. It motivated them to engage and they became willing to take full responsibility for their actions. One participant said the following:

> *I have learned that self-directed learning supports student autonomy. It is the very same autonomy and the willingness to take full responsibility for one's actions to reflect (FG7 interviewee, text unaltered).*

Participant FG6 said that she had taken control by planning and managing her time. She was in charge of her studies:

> *I carefully do the planning, and managing of time and take charge of my studies. I am responsible for my studies (FG6 interviewee, text unaltered).*

5 DISCUSSIONS

Scholars argue that phenomenology is the "science of experiences-as-lived", both philosophically and methodologically, because it describes the unique characteristics of human interactions, experiences, and consciousness. Literature reports that flipped pedagogy is a student-centered approach based on flexibility to enhance personalized learning experiences, either through face-to-face contact or in a blended learning or distance learning context (Wanner & Palmer, 2015; Aslan, 2020; Lin, Wang & Lee, 2022). Findings revealed that the participants agreed that the pedagogical dimensions are drivers for the functionality of the teaching approach and promote personalized learning as well as team-based learning in the flipped learning setup and during out-of-class sessions. Fassbinder, Fassbinder, and Barbosa (2015) agree with the finding of this investigation that the pedagogical dimensions impacted positively the functionality of the flipped pedagogy during the COVID-19 pandemic. Flipped learning places the student at the heart of the learning process and it requires individuals to take control of their learning. Participant FG8 said: *"This teaching strategy is focused on students … it refers to it as a student-centered approach … strategy places students at the center of his/her learning [sic]."* Koh and Ling (2019) report that a systematic view of pedagogical dimensions is an important construct for the implementation of flipped learning following a student-centered approach. Studies conducted on personalized learning as part of flipped learning show the same advantages (Fassbinder, Fassbinder & Barbosa, 2015; Sun & Lin, 2022; Xhomara, 2022).

Flipped learning promotes higher-order thinking and critical thinking skills (Huang, Silitonga & Wu, 2022; Xhomara, 2022; Liu & Zhang, 2022). To achieve this, the lecturer used case studies and problem-solving scenarios that required knowledge application. In the course *Economics Teaching*, student teachers were divided into teams, and they could choose one of the topics in the eTeaching Plan. The members of each team worked together to decide how to approach challenges and how each member of the team would apply the learned knowledge and skills to solve problems. A tutorial letter provided the scenarios and each team reported weekly on the status of their case or problem. One participant said the *"course had empowered me with deep higher-order thinking skills and supported my constructive learning experiences in most of my learning units" (FG4 interviewee).* Participants agreed that the method used in the course had improved their critical thinking skills significantly. A study conducted by Huang, Silitonga and Wu (2022) reports that the "business simulation game" applied in flipped learning leads to active participation and promotes the higher-order thinking skills of students. Liu and Zhang (2022) report that they used the *WeChat* social media tool, which led to improvements in university students' academic performance and higher-order thinking skills.

Thirdly, many studies have concluded that flipped learning enhances collaboration through group work and supports active learning through the sharing of ideas, working together, and reaching group consensus (Aslan, 2020; Saqr & Peeters, 2022; Lin, Wang & Lee, 2022; De Back, Tinga & Louwerse, 2021). It was found that participants were positive about collaboration. Participant FG2 said, *"In my team, we researched, analyzed information, and made critical reflections on the state of poverty. We had to share and collectively agreed in our deliberations."* De Back, Tinga and Louwerse (2021) report on a study involving a cognitive science course offered in a virtual learning environment. Their study showed that students shared ideas and worked together to achieve the intended learning outcomes. In the same vein, Participant FG5 mentioned that participants had *"deliberations on the Teams platform, which was lively engagements amongst fellow course mates which stimulated peer-collaborations [sic]".* Alajlan (2022) applied a quasi-experimental design to the flipped learning approach in a university lecture room and reported that flipped learning improved participation and led to more active engagements and more positive learning experiences.

Finally, it was reported that self-directed learning as a pedagogical dimension supported students in becoming autonomous in their studies. It created a sense of responsibility, as an intentional process was followed to encourage students to take responsibility for their learning (Hadžiahmetović, 2021; Van Alten, Phielix, Janssen & Kester, 2021; Aslan, 2020; Van Wyk, 2020; Park, Park & Chae, 2018). The findings revealed that participants agreed that flipped learning created spaces for self-directed learning. A participant alluded to *"autonomy as an awareness amongst students and the willingness to take full responsibility for one's actions [sic]".* Similarly, Khodaei, Hasanvand, Gholami, Mokhayeri, and Amini (2022) state that the effective application of an online learning method increases students' self-directed learning and metacognitive awareness.

6 IMPLICATIONS AND LIMITATIONS

This study contributed to the literature on phenomenology as a method of teaching economics in an ODL context. It also advanced the understanding of how to use an interpretive phenomenological study to explore pedagogical dimensions that

drives the functionality of flipped learning in an ODeL context. To the best of the author's knowledge, this was the first empirical study of this nature conducted in an ODeL environment during the COVID-19 pandemic. Furthermore, this qualitative study gave voice to students' experiences-as-lived of pedagogical dimensions that energies the functionality of flipped pedagogy in an online course at a time of crisis. The study also added to an understanding of and insight into the lived experiences of student teachers exposed to the pedagogical dimensions of the flipped pedagogical design applied virtually.

The epistemology (knowledge of the subject) of pedagogical dimensions as drivers for the success of the flipped instructional design applied within an ODeL context was extended in this study. However, several limitations and suggestions for future studies should be noted. Firstly, the small sample of participants might limit the generalization of findings. Future studies on this phenomenon with a larger sample of *Teaching Economics* (BEd and PGCE) students and a online survey design, might report different results. Moreover, empirical studies could consider a mixed methods design and probability sampling approach to yield different results. Future research could extend the inquiry to other pedagogical dimensions, for example by examining the effect of motivational factors on the self-efficacy of student teachers.

7 CONCLUSIONS

The literature concludes that phenomenology is the "science of experiences-as-lived" because it explicitly describes the unique characteristics of human interactive experiences and consciousness. Based on this notion, this investigation reported the findings of participants' experiences-as-lived of the pedagogical dimensions acting as functional drivers of flipped pedagogy in a course at an ODeL teachers' education college during the COVID-19 pandemic. In the context of this study, a connected online learning management system was used for flipped pedagogy in teaching an online Economics course. This allowed students to share ideas, opinions, beliefs, viewpoints, and experiences, engage in collaborative learning, develop meaningful higher-order thinking skills, personalize their learning, and take responsibility for self-directed learning experiences. Participants agreed that the teaching approach promoted personalized as well as team-based learning in the flipped learning set-up as well as during out-of-class sessions. Furthermore, it was revealed that there had been an improvement in participants' higher-order thinking skills. The findings showed that students shared ideas and worked together to achieve the intended learning outcomes of the course. Finally, self-directed learning as a pedagogical dimension helped participants to become autonomous in their studies. It also encouraged participants to take responsibility for their learning. This exploratory study showed that the pedagogical dimensions play a crucial role in successful flipped learning. In addition, the study contributed to the practical implementation of the pedagogical dimensions and identified opportunities for future research.

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