CHAPTER 21

Transition to Online Pedagogy During Covid-19 Pandemic: Reflecting on Experiences and Perceptions of Lecturers and Students

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Abstract

In the context of a global pandemic, education at most universities in South Africa underwent rapid adaptation and transition to online and blended modes of teaching and learning. Tertiary educators were expected to adapt to flexible schedules, changing pedagogical practices, and learning and work environments shaped by technology. The Covid-19 pandemic has made it increasingly important for institutions to migrate their traditional face-to-face (F2F) instruction methodology to fully online teaching, learning and assessment. Educators and institutions had to urgently adapt new innovative pedagogies, responding to the demands of the pandemic. A new approach was required to address the learning needs and challenges of first-year students, who were obliged to study in varying environments and yet still expected to attain a high-quality qualification. This case study reflects on first-year engineering educators' and students' experiences and perceptions of multimodal instruction, learning and assessment, transitioning from face-to-face (F2F) to online environment. We used the reflective framework of Gary Rolfe (2001) and the theoretical constructs of Cultural-Historical Activity Theory

(Engeström 2001) to explore how first-year University of Technology engineering students traverse the F2F-online continuum. The collected data were analysed using quantitative methods. We found that the lecturers expressed an overall positive perception and students an overall negative perception about multimodal online pedagogy. The migration to an online environment provided the lecturers with professional learning opportunities to customise their teaching practices in the new context.

Keywords: Online instruction, face-to-face instruction, Covid-19 pandemic, engineering mathematics, first-year engineering students, perceptions, reflection, professional learning

Introduction

The current pandemic caused by the novel coronavirus disease of 2019 (Covid-19) made it increasingly important for educational institutions to adapt their instructional methodologies to address the challenges experienced by educators and students (Hoover 2020; Zalat *et al.* 2021). This sudden change pulled us from our comfort zone of face-to-face (F2F) teaching, learning, and paper-based assessments. It became a real challenge for educators who had no professional training in online teaching practices. Numerous studies show that many educators do not effectively use the technological resources at their disposal (George *et al.* 2012; Karimzadeh *et al.* 2017). Thus, there is a need for pedagogical change to gravitate towards online environments, because of the advent of the fourth industrial revolution, the current global digital explosion, and to accommodate the millennials (Amir *et al.* 2020). Many lecturers had to improvise and acquire the skills to explain concepts online and facilitate student engagement. The use of technology for in-person, distance, and remote teaching has been happening since the

early 1980s (Segalla and Hauk 2005) the widespread closing of schools due to the Covid-19 outbreak seemed to shock the educational community, with many lecturers scrambling to figure out how to shift their pedagogy to emergency remote teaching (ERT). Therefore, professional development can assist educators to navigate this global pandemic and can help to improve training and support for educators, so they are ready to design quality learning experiences for any situation.

Several studies noted that had educators been better prepared to design technology-rich learning experiences and spent more time using technology in their classes prior to the pandemic, it would have been easier to ensure continuity of learning for students at a distance and it would have significantly reduced the stress of transitioning to ERT for themselves, their students, and the students' parents or families. In terms of professional development training, some studies found that the effectiveness of once-off professional development (PD) training for ERT is not adequate. These changes not only affected lecturers but also impacted students, especially first-year students. The assumption that students are technologically literate because they use technologies for their daily social activities, e.g., cell phones, the internet, social media, etc. is flawed (Stols *et al.* 2015; Carey 2020). The mere presence or possession of a device does not imply a habit of studying digitally (Sari and Yoni 2021). Nevertheless, there is a legitimate concern that as the millennial generation enters university in greater numbers in the context of Covid-19, there will be a need to accommodate them psychologically and technologically (Stols *et al.* 2015; Bordoloi *et al.* 2021). There also seems to be a prevailing assumption that face-to-face instruction can simply be directly translated into an online format (Churton 2008; Mdlongwa 2012;). These pedagogical challenges might

have a negative impact on students' first-year experiences and student success.

The objectives of this chapter are to reflect on the experiences of first-year students and lecturers in engineering during the transition from face-to-face to the online environment. The Cultural Historical Activity Theory (Edward 2005; 2008) is used to understand the experiences and perceptions of the lecturers and students. This chapter provides a reflective analysis of the lecturers' and students' experiences using Rolfe *et al.*'s (2001) reflective framework to critically engage with questions like, 'What? So what? Who? How? and Now what?'

Literature review

Before the outbreak of Covid-19, the social interaction in the classroom allowed for student-lecturer and student-student in-person immediacy. Mehrabian (1969) defines immediacy as, "those communication behaviours - some visual, others vocal - that enhances closeness to and non-verbal interaction with another". Furthermore, Frymier (1993) found that instructor immediacy is positively related to students' motivation to study. When education institutions were locked down due to the Covid-19 pandemic the student-lecturer and student-student immediacy was replaced with synchronous and asynchronous online environments. The Covid-19 outbreak exposed many educators' readiness to use technology to support students at a distance. Meanwhile, lecturers who used the technology frequently in their practice and included blended learning in their lessons reported an easier transition to fully online teaching. However, many lecturers found it very challenging to teach online and remotely (Whalen 2020). The most challenging factor seems to be the ability to replicate features of a traditional F2F classroom environment i.e., social interaction,

prompt individual feedback, practical demonstrations, addressing individual needs, and summative assessment into online formats (Sari and Yoni 2021).

Literature shows that lecturers improvised and customised their teaching practices to engage with students in online environments (Bordoloi *et al.* 2021). In doing so, lecturers used video conference platforms to replicate the essence of a physical encounter; however, while the expensive videoconferencing equipment that is often used in commercial settings works well, most educators only have access to inexpensive technologies. On the other hand, students learn asynchronously online with the benefit of choosing the time and circumstances of their learning setting and synchronously participating in live online sessions. Trust and Whalen (2020: 18) opined that to ensure continuity of learning for any situation and to support students across spatial and temporal boundaries, educators need to be "fluent users of technology; creative and collaborative problem solvers; and adaptive, socially aware experts throughout their careers".

When we explored the transition from the F2F to the online environment we drew on the CHAT framework to explain, interpret what is happening in the classroom, and used Rolfe's framework to answer the following questions: Who is mainly involved? Who else were involved? What was achieved and what was the motive for drawing this activity system? What was used? CHAT enabled us to analyse the pedagogical practices and Rolfe's framework to present the reflections on the practices.

The theoretical framework

Cultural Historical Activity Theory (CHAT) was originally proposed by the Russian socio-cognitive theorists Leont'ev (1974) and Vygotsky (1980), and further developed by Engeström (1999, 2001), as a guiding analytical framework. CHAT provides a framework for analysing interactions between lecturers and students that includes not only the interpersonal/communicative aspects of those relationships but also the cultural, historical, and economic dimensions. It makes us aware of the relationship between subjects and the objects of their activities, the role of tools, mediation, and the context of the activity (Engeström 1999). The first principle of CHAT is that the *object* drives the activity (Engeström 2001). The *object* is what the subjects understand as the purpose or intention of the activity, that which "propels them forward to take action" (Engeström 2018: 48). Figure 1 illustrates the teaching and learning activity system during the Covid-19 pandemic for this study, in which the *objects* are the effective online pedagogy of lecturers and the acquisition of engineering concepts by students. The participants of interest in any educational activity system are the students, whose purpose (object) is to learn; and the lecturers, whose purpose (object) is to teach (Roth 2004). Therefore, the *subjects* are the students and the lecturers.

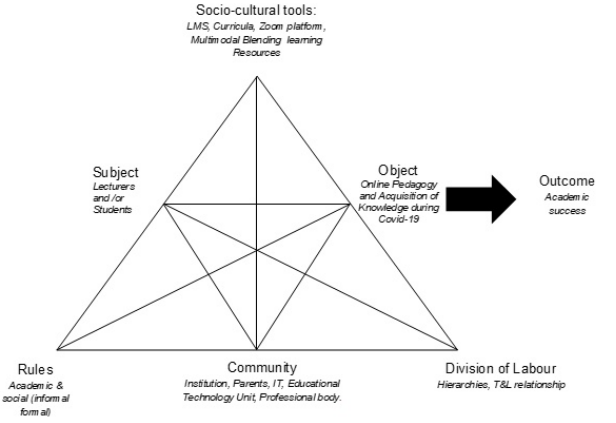

Figure 1: A teaching and learning activity system (adapted from Engeström 1999)

Within this system, the online blending learning resources, socio-materials (e.g., institutions, discourses) and *cultural mediational tools* such as curricula, facilities, equipment, internet-based and library-based resources, and the learning management system (LMS) are directed at the objects. The lecturers and students form part of a much broader system - the university that is embedded in an Institutional culture that has rules and hierarchies of decision-making *rules and divisions of labour*. It is important that the correct *tools* and resources are used with appropriate *rules and divisions of labour* to guide the activity system, e.g., which tasks are appropriate for students, and which are more appropriate for lecturers in achieving the respective *objective*. The *community* of an activity system are those who are affected by the systems, for example, parents and professional bodies but are not directly involved in the work of achieving the object (Uden 2007). The community can also be beneficiaries of the activity, and stakeholders in the activity. In the case of this study, important

community participants include the university and the information technology (IT) department.

Practices and conventions in education have “deep roots” (Sannino and Engeström 2017: 24) and are slow to change to accommodate new objects, subjects, tools, rules, communities, and divisions of labour (Edwards 2008). The Covid-19 pandemic forced the education system to change and accommodate online pedagogical approaches. However, CHAT cautions that the introduction of new tools, such as the online conferencing platform, mathematics e-textbooks, etc. could cause disruptions (contradictions or tensions) in the system, but such disruptions are not necessarily negative. Contradictions reveal unique opportunities for creative innovations, for new ways of structuring and enacting the activity.

CHAT will be employed to analyse and connect lecturers' and students' responses with theoretical knowledge. CHAT allows for a dialectical process in which the students and lecturers interact with the environment and with various digital artefacts. Moreover, CHAT allows a controlled analysis of the data looking at different aspects but maintaining a holistic viewpoint. The analysis of this chapter is located within Cultural Historical Activity Theory (CHAT) and implications for CHAT will be also discussed in the next sessions.

Reflective model (framework) for writing this chapter

The reflective model by Rolfe *et al.* (2001) will be used for the structure and design of this chapter in which the authors analyse students' and lecturers' experiences, practices, and responses, to learn from it and improve the professional learning. The reflective model (Rolfe *et al.* 2001) is based on three simple questions: What? So what? Now what?

When using this model, the authors begin by introducing the problem before making observations about the issue and finally concluding by telling the reader what they would change next time. The "What?" question focuses on the issue of reflection, or the tasks involved. The "So what?" question refers to the issues that extend from the "What?" question. The "Now what? question deals with the outcomes, recommendations, and suggestions.

One of the authors of the reflective model, Fook (1999: 202), asserts that critical reflection "relies upon knowledge, which is generated both empirically and self-reflectively, and in a process of interaction, in order to analyse, resist and change constructed power relations, structures and ways of thinking". Rolfe and Freshwater (2020: 53) assert that "Reflection is a process of thinking, imagining, and learning to consider what has happened in the past, what might happen if things had been done differently in the past, what is currently happening, and what could possibly happen in the future." This reflective model also serves as an obvious catalyst for professional growth in a collaborative setting. Professional growth is based on the concept that professional learning resides internally in the classroom context and is cultivated both individually and collectively (Vescio, Ross and Adams 2008).

What did we plan to study?

We used a 5-point Likert scale questionnaire with open-ended questions to collect data from a purposive sample of 10 lecturers and 36 engineering students. The questionnaire was validated by fellow lecturers for this study. We also obtained research ethical clearance from the university before we conducted this study (FREC Ref: 13/2020). The questions focus on the experiences and perceptions of the lecturers and students during the transition period - immediately

before and after the outbreak of the Covid-19 pandemic. The students attended two one-hour lectures weekly physically in a classroom before the national lockdown. When the national lockdown was announced, teaching, learning, and assessment were moved fully to the online environment. After the online mathematics lessons, we asked students to give anonymous feedback on virtual sticky notes via Google Jamboard. This feedback allowed us to reflect on our teaching practices and timeously make changes in our online lessons (Hattie *et al.* 2007; Molloy and Boud 2012; Boud and Molloy 2013). According to Molloy, Boud, and Henderson (2020), the essential feature of feedback is that progress about current work is provided to students, influencing the quality of subsequent work. Receiving immediate feedback from students gives lecturers a unique opportunity to improve their teaching practices.

During both formats of curriculum delivery, a multimodal blended approach was used which included the use of the learning management system (Blackboard Collaborate) and social media (WhatsApp). However, the talk-and-chalk physical lectures and paper-based assessment were unique to the F2F format, and the virtual conference platforms (Zoom, MS Teams, etc.) and adaptive assessment technology (Cengage WebAssign) were unique to the online format. Table 1 indicates the multimodal approaches during the F2F and online environments.

Table 1: Summary and comparison of F2F and multimodal instruction and learning

	Face-to-face (F2F)		Online	
	Synchronous	**Asynchronous**	**Synchronous**	**Asynchronous**
Learning space	**Same time and same space** Classroom and Labs = Campus	**Different time and different space** Home, Blackboard, WhatsApp	**Same time and different space** Zoom, Blackboard Collaborate Ultra	**Different time and different space** Blackboard, WhatsApp, WebAssign
Pedagogy	Talk-and-chalk, lecturer style, practicals	Notebook, textbook, self-study	Computer screen, chatbox, microphone	Computer, cell phone, e-textbook, self-study
Affordances	Eye contact for engagement	Own space, own pace	Teacher facilitator or student-screen	Own space, own pace
Engagement	Teacher-students or student-student	Self-study	Breakout rooms	Self-study
Activities	Groups or individual	Self-study	Online consultation	WhatsApp groups

The transition through the eyes of the students and lecturers

The Cultural Historical Activity Theory (CHAT) posits that an activity system does not exist in isolation but is influenced by the socio-cultural conditions (Engeström 2001). In the same way, the transition to fully online teaching, learning, and assessment is influenced by the perceptions of lecturers and students (Sari and Yoni 2021). The new pedagogical environment (learning activity system) had to consider the socio-economic conditions and the way in which students and lecturers view teaching, learning, and assessment. The members of the community of activity system (Figure 1) in this study had to make changes and respond to sudden changes due to Covid-19, for example, the students' parents created learning environments at home because the university residences were closed. Furthermore, the information and technology department also had to put online infrastructure in

place, educators had to improve their technological skills, etc. to support the subjects (students and lecturers) to attain the objects in the activity system. More importantly, the students and lecturers need to buy into the new learning activity system and share the same perspective on achieving the outcomes of the system.

The students' perceptions

Figure 2 illustrates the students' perceptions about different elements of face-to-face (F2F) and online instruction, learning, and assessment based on their responses to the questionnaire.

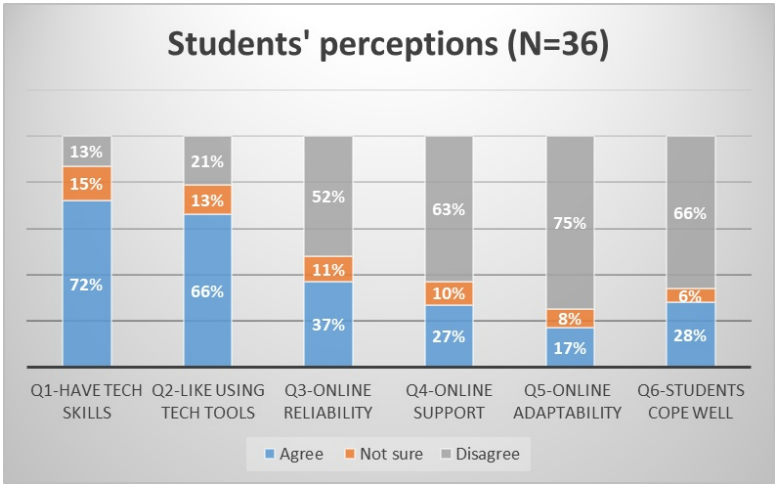

Figure 2: Students' perception of online teaching, learning, and assessment

The students' responses evince an overall negative perception of online teaching, learning, and assessment during the transition to fully online environments. Most of the students (66%) expressed that they do not cope well with online learning, in Question 6, because they felt that the course material was too much for online learning. They mentioned that

"It is an additional burden to master online technology skills and at the same time receive instruction, study content, and complete assessments". The sudden move to digital platforms caught lecturers off-guard because they had limited digital resources for their course material. This probably explains the typical response of students to Question 5, "The content is not adequately adapted to the online platform environment, because the digital content does not have local examples". Almost two-thirds of the students (63%) mentioned that they do not receive enough online support in their responses to Question 4, stating that they did not get proper guidance on how to navigate the university's Learning Management System (LMS) and other online platforms. On the other hand, in Questions 1 and 2 most of the students indicated that they have the necessary technical skill (72%) and like to work with technology devices (66%). One wonders if the students appreciate the fact that there is a difference between social and academic-related technology (Sari and Yoni 2021). The responses to Questions 1 and 2 bear out the notion that younger students are "digital natives" who use technology for almost every daily task comfortably (Prensky 2001: 13). According to the CHAT framework, mediational tools or technology are resources that support the outcome/performance of the subject/students, therefore, the positive responses to Questions 1 and 2 might ultimately become, 'ingrowing' (Leont'ev 1997: 22). By that, Leont'ev suggests that students begin to take control and use them without external help. This 'ingrowing'-notion may improve the negative perceptions expressed in Questions 4 and 5, about support and adaptability.

The overall negative perceptions expressed by the students to this questionnaire indicate a serious need for mediational means/tools to assist students to move through Vygotsky's (1980) Zone of Proximal

Development (ZPD). The online environment and digital resources should scaffold students from the unknown area of knowledge and concepts to a more knowledgeable level.

The lecturers' perceptions

Figure 3 illustrates the lecturer's perceptions about different elements of F2F and online instruction, learning, and assessment based on their responses to the questionnaire.

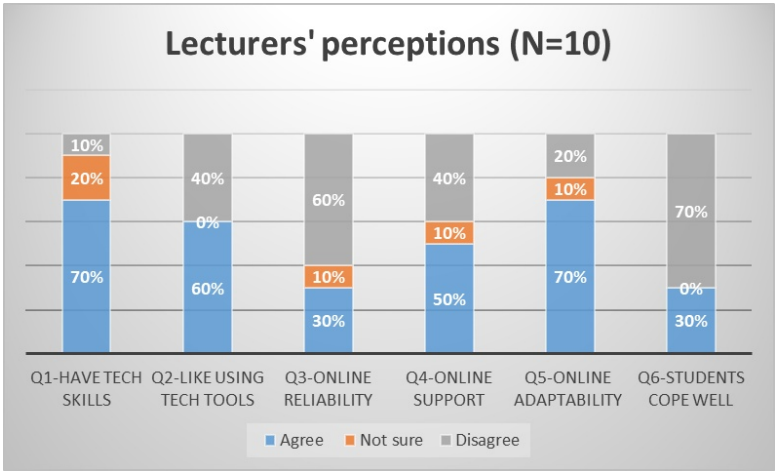

Figure 3: Lecturers' perception of online teaching, learning, and assessment

The data in the graph indicates an overall positive perception based on the responses. A closer look at Figure 3 indicates that most of the lecturers like to use technology (70%) during lessons, possess adequate technological skills (60%), do get the necessary online support (50%), and believe that the paper-based course content can be adapted to digital formats (70%). These responses were expected from the lecturers because they received technological resources and technical support from the university. Furthermore, the lecturers agreed that "The

LMS and online conferencing platforms like TEAMS and ZOOM are easy to use and we do not need extensive training because we used it as part of our professional training". This response is in line with the apex of the CHAT triangle (Figure 1) - mediation tools and artifacts like technological devices, the online teaching platform, teaching methodology, etc. The comment also emphasises the important roles that the members of the community - part of the basis of the CHAT triangle - in the activity system play i.e., the maintenance of the technological infrastructure by the information and technology (IT) department, the provision of technological resources by management, and the training on how to effectively use the technological resources.

However, only Questions 3 and 6 attracted negative responses, 60%, and 70% respectively. In Question 3 the lecturers expressed their doubts about the trustworthiness of the digital material and validity of online assessments. One of the lecturers mentioned, "Students share answers telephonically during an assessment, and there is no way to control cheating by students". The lecturers and students form part of the broader university's activity system of teaching and learning culture that has hierarchies of decision-making rules and divisions of labour. It is important that the correct tools and resources are used with appropriate rules and divisions of labour to guide the activity system, e.g., which tasks are appropriate for instruction and assessment, therefore assessment should be changed cheat-proof and the lecturer should have more control. Furthermore, the overwhelming response of the lecturers to Question 6 that students do not cope with online teaching, learning, and assessment, refers to the impact of the Covid-19 pandemic. Lecturers highlighted that "Students were anxious and hesitant to participate actively during online sessions, at first" object and debate on passive and active learning and "Students do not

complete assessments, because of trauma caused by their family members affected by the Covid-19 virus". Within the Covid-19 pandemic context, the parents and family support play a crucial role to create a conducive learning space at home. The South African socio-economic realities of many disadvantaged students who do not have reliable access to internet connectivity and technological devices might not cope with online teaching, learning, and assessment.

When we compare the perceptions of the students and lecturers, it is evident that they do not share the same perceptions about online teaching, learning, and assessment. They expressed different perceptions of online support received, and the adaptability of the course material for online teaching, learning, and assessment. Interaction and improvisation of the lecturers led to professional development challenges, academic integrity, and e-textbook allowed lecturers to do formative assessments. Fawns (2022) asserts that pedagogy should encapsulate the mutual shaping of technology, teaching methods, purposes, values, and context - which he refers to as 'entangled pedagogy'. The entangled pedagogy informs the professional development of lecturers to be inclusive in their approach and negotiated agency between themselves, students, and other stakeholders. The authors agreed with Fawns (2022) that when the lecturers design the new curriculum, the focus should not only be on technology and pedagogy but also on context (e.g., Studying conditions, students' background, and economic pressure), purpose (explicit curriculum by answering the question *what* students will do but also *why*) and education values (beliefs) of the students and lecturers.

What happened in the F2F classroom and in the online environment?

The sudden outbreak of the Covid-19 pandemic led to emergency remote teaching and learning (ERTL) resulting in the drastic transition

of pedagogical settings. The face-to-face instructional settings where students were seated at desks and the lecturer taught from the front of the classroom changed to fully online environments allowing lecturers and students to work remotely from home as illustrated in Figure 4.

Figure 4: Line drawing of transitioning from F2F to the online environment (Permission was granted - ethical clearance)

In the physical classroom, before Covid-19, the instruction process involved mainly question-and-answer and taking notes from the writing board, and occasionally students had group discussions with peers close to them. The students' notes and assessments were pen-and-paper based. This setting allows for instructor immediacy which makes it easy for instant feedback (Molloy and Boud 2012; 2020; Boud and Molloy 2013), and responsive teaching and learning. One of the lecturers responded in the questionnaire that, "... during a F2F lesson in class I could see if students understand what I am explaining by [looking at] their body language and facial expressions". This observation supports Rovai's (2000) and Whalen's (2020) assertion about instructor immediacy which states that immediate verbal and non-verbal kinds of communication, such as smiles, head nods, the use of inclusive language, and eye contact, help to promote learning.

When teaching, learning, and assessment transitioned to a fully online environment, the lecture sessions were conducted on online

conferencing platforms (Zoom and Blackboard Collaborate). From other responses in the questionnaire, lecturers were uncertain if the academic year would be completed, and students and lecturers were anxious if they would adjust to the new way of teaching, learning, and assessment. However, the university responded slowly, but positively to the initial impact of Covid-19 by putting technological infrastructure and resources in place. Lecturers were provided with technological devices and internet data, but minimal training to effectively use the resources. The rollout of technological resources and internet data for students took place over a much longer period. Students accessed learning material via Blackboard LMS, Google Docs/Forms, WhatsApp, and email. They were able to use adaptive technology (an e-textbook with WebAssign for self-study) and submit assignments and assessments. During online lessons, students used a threaded electronic discussion board to take part in the presentations and provide responses. Figure 5 illustrates a screenshot taken during an online lesson on vectors.

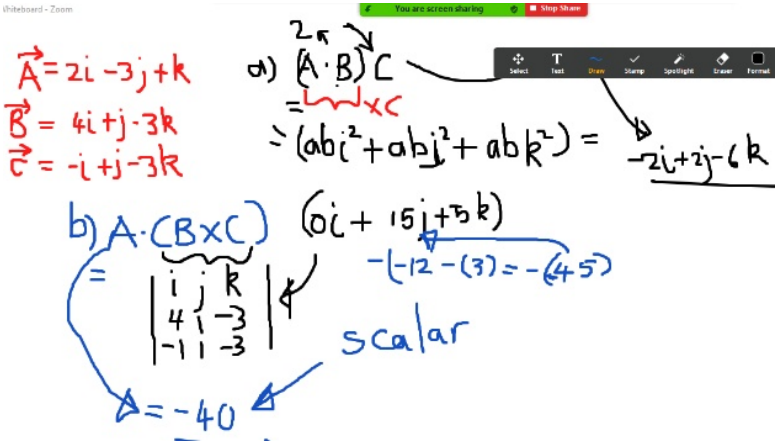

Figure 5: Screenshot of a Zoom presentation of a lecture on Vectors (Permission was granted - ethical clearance)

During this lesson, the lecturer assessed the students' conception of vector analysis. The problem was shared on the LMS with the students before the lesson and they had to solve it beforehand. During the online lesson, the online whiteboard was shared with the students who are asked to volunteer to solve the problem. The students used black and blue annotations, and the microphone to explain their solutions to the problem. All the students provided their responses in the chatbox, which the lecturer used to stimulate discussion and facilitate learning by creating an interactive and safe place to make mistakes and ask questions to verify understanding.

Professional development became an important aspect of lecturers during the transition to fully online teaching, learning, and assessment environment. The Covid-19 pandemic forced lecturers and students to push the boundaries of instructional methodologies and institutions guidelines and build personal networks that cross these boundaries. Arguably, strong forms of agency are required to help lecturers in their professional development, such as practitioners who need to collaborate across organisational boundaries, to find moments of stability as they move into the new fully online teaching, learning, and assessment pedagogical setting. These forms of agency require sustaining (Edwards 2005). Archibald *et al.* (2011) opined that lecturers are the agents in their own professional learning. This was demonstrated by the lecturers in the way they used the teaching and learning environment as a professional development opportunity. Many lecturers might have used little technological tools in their pedagogical processes before the national lockdown but had to train and equip themselves to use technology in all aspects of teaching, learning, and assessment methodologies. They had to build the airplane while flying.

So, what now after the transition?

We used the Cultural-Historical Activity Theory (Engeström 2001) to interpret the experiences and perceptions of educators and students during the transition to fully online teaching, learning, and assessment environments. Cultural-Historical Activity Theory (CHAT) offers a holistic and contextual method of discovery that is used to support this qualitative research. CHAT is a practice-based and practice-oriented theoretical framework that focuses on tool-mediated actions by actors or agents (lecturers and students) as well as socio-economic relations (Foot 2014).

During the outbreak of the Covid-19 pandemic, new opportunities emerged for lecturers and students within the teaching and learning spaces. Our reflections revealed that the perceptions and experiences of lecturers and students during the transition from F2F to the online environment had some similarities and differences. In general, both students and lecturers have positive perceptions about their willingness and use of technology in teaching and learning. However, they have different perceptions when it comes to the online support they received and the online adaptability of course material. The negative perceptions could be attributed to the anxiety and online learning fatigue of students, furthermore, the amount of required content that students must cover in a course, and the time spent in front of the computer screen is too demanding (Mheidly *et al.* 2020). However, many South African universities tried their best to keep the promise of 'leaving no student behind', but many underprivileged South African students were victims of the initial onset of Covid-19 because many educators were not trained for online teaching, and many students did not have the necessary resources. However, the educators

improvised and improved their professional development while coping with the demands of teaching during the Covid-19 pandemic.

Archibald *et al.* (2011) assert that professional learning changes teacher perceptions of their practice which has the potential to improve both teaching and student outcomes. In this study, the lecturers acted as agents of their own professional growth by acting decisively to improve their practices, preparing them for the post-Covid context. Additional research is needed to provide better support, preparation, and professional development for lecturers. For instance, scholars might consider evaluating how lecturers use technology for hybrid teaching (online and F2F), even post-Covid-19. How do lecturers replicate their in-person teaching strategies with digital tools to produce authentic, technology-rich learning activities with digital tools and applications? These perceptions and responses from the lecturers and students could help to improve learning skills and professional development. Professional development should include engaging in social, learner-centered activities, like self-directed learning, ongoing practice, conversations with mentors/coaches, and collaboration with colleagues would be the most helpful way to adapt their practice to the current situation. Therefore, professional learning should not be a matter of induction into established practices, but it also needs to include a capacity for interpreting and approaching problems, contesting interpretations, reading the environment, drawing on the available resources, being a resource for others, for focusing on the core objects of the profession whether it is students' learning or social inclusion.

The central part of this chapter was to understand professional learning and not only interpret challenges that the lecturers and students faced, but also act and reflect on them to underpin an

enhanced version of professionalism. We hope that our experiences and reflection in this chapter will assist other researchers and practitioners to deal with the transition of online learning, which is no longer an emergency but a reality.

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