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Reimaging eLearning technologies to support students: On reducing transactional distance at an open and distance eLearning institution

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Abstract

Transactional distance continues to be a major issue in Distance Education (DE) as resolutions to guarantee and support it are not wholly contingent on technological affordances, but depend on interactions, communication, and motivational channels embedded in pedagogical practices. While education during the Covid-19 pandemic is supported by DE, discussions around academic achievement during the pandemic have also begun. This paper argues that without reducing the transactional distance between the lecturers and students in DE institutions, effective teaching and learning cannot occur. This is a qualitative, participatory action research study that uses the experiences of first-year students, interviews from lecturers and observations of the online activity of the students in one academic writing module. This paper draws on one DE University as an example, the University of South Africa. The purpose of the paper is to identify and suggest alternative pedagogical practices to reduce the transactional distance between students and lecturers.

Keywords

Transactional distance, distance education, open and distance eLearning, student support, covid-19, participatory action research, english studies

Introduction and background

Over the years, lecturers have experimented with different pedagogies in Distance Education (DE) in an attempt to support students in the best way. Distance Education is a form of education where students are geographically separated from their lecturers and other students. The contextual focus of this paper will be on DE; especially because the Coronavirus (Covid19) pandemic has forced universities across the world to adopt DE approaches (Dhawan, 2020; McClure & Williams, 2021).

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Open and Distance eLearning (ODeL) is becoming progressively common as conventional universities offer more online courses due to the disruption of the pandemic as well as the increase in enrolment in ODeL universities over the past few years (Garrett, 2016; Tsiplakides, 2017; El Said, 2021). Open and Distance eLearning offers a number of benefits and is a much more viable option (Schreiber & Jansz, 2019) compared to traditional face-to-face universities as it is associated with lower costs, increased flexibility for students who work part or full time and increased access for students with linguistic and other barriers (Nsamba, 2019). However, DE and ODeL comes with pedagogical challenges, including the probability of loneliness and segregation, which can lead to high rates of attrition (*ibid.).* Arguably, the limited face-to-face interaction in ODeL can contribute to what Michael Moore calls 'transactional distance' (TD). The theory of TD first developed in the 1980s and refers to the psychological distance between lecturers and students (Moore, 1993; Quong et al., 2018). Transactional distance established a paradigm shift in that it viewed "distance as a social and communication gap" (Swart & Macleod, 2021: 4); a space for potential misunderstandings between lecturers and students.

Despite attempts in the literature to understand how meaningful learning occurs between lecturers and students, this action study attempts to use eLearning technologies to support students in their learning and seeks to understand how these technologies can bridge the TD between both stakeholders at the University of South Africa (Unisa). A pertinent study conducted by Nsamba (2019) at Unisa, aimed at assessing the maturity levels of lecturers and tutors' explorations of different forms of eLearning technologies to support students. The study found that the use of eLearning technologies by lecturers and tutors was measured at level 1 or 'basic' on the Maturity Assessment Framework for ODeL. Another case study, conducted by Zawada (2019:15), notes that Unisa has a complex Quality Assurance (QA) system in place, however, its "effective implementation may not be evenly spread across the institution". In line with Nsamba's (2019) and Zawada's (2019) argument, this paper argues that ODeL and DE institutions can improve the enactment of a high-quality culture of teaching and learning with the student and lecturers at the centre of meaning-making and success. Thus, the focus of this study is to assist students and lecturers via eLearning technologies to reduce TD; which arguably debilitates meaningful learning. This paper makes a meaningful contribution in understanding how to reduce the TD between students and lecturers in DE and thereby developing a quality culture and community of practice through reimaging the use of eLearning technologies in teaching and learning.

Contextualising the study

Unisa is one of the oldest and largest universities in Africa and caters for students from diverse socio-economic and linguistic backgrounds through an ODeL model. Unisa's 2016-2030 strategic plan goals and objectives position the university as the leading provider of ODeL in teaching and learning in Africa and globally (UNISA, 2018). This study focuses on reducing the TD between students and lecturers in one module, English for Academic Purposes (ENG1503), located in the College of Human Sciences in the Department of English Studies. The module, which is a compulsory module for the Bachelor of Arts programme, registers approximately 25,000 students per semester and its purpose is to enable students to develop academic writing skills. It is highly concerning that many students in this module fail between three to eight semesters; in rare cases, sometimes even longer. It is argued that student engagement is important to prevent online student isolation and dropout rates; especially during the pandemic. Student engagement may be an important factor in the retention of online students which may lead to a decrease in dropout and increase in graduation rates (Banna et al., 2015). An alarming possibility of online education is that

it can become more teacher-centred than learner-centred (Krishnan et al., 2021). Despite this shortcoming, this paper seeks to investigate the effect the eLearning technologies or pedagogical interventions during the Covid-19 pandemic had on reducing the TD between students and lecturers to improve the 'quality culture' of learning in one module. To achieve this purpose, the research questions are listed below:

1. Do students in the ENG1503 module feel supported by an online presence of their lecturers during the Covid-19 pandemic?
2. How do lecturers in ENG1503 use eLearning technologies to decrease the transactional distance gap between themselves and the students?
3. What impact does the incorporation of eLearning technologies in the module have on the students?

Developments in online and distance education

One of the chief roles of Higher Education Institutions (HEIs) is to empower students to contribute to an improved world by equipping them with technological competencies. In this regard, real world engagements play a significant role in sharing pedagogical experiences in ODeL which contribute to best practices. The 1990s saw a rapid expansion globally in DE with HEIs coming up with asynrchronous and real-time virtual learning (Krishnan et al., 2021). The 20th century saw substantial technological advances which heralded the way for remote learning such as: World Wide Web, Email, audio recordings, video recordings, broadband, optic fibre, video conferencing, video calls, internet of things, cloud computing, etcetera. Currently, DE has developed with a wide variety of online education platforms, apps and digital tools like CourseNotes.com, WebCT (Web Course Tools), Moodle, YouTube EDU, iTunes U, MOOCs, Udemy, Virtual lab, Mindvalley, Udacity, Coursera, LinkedIn Learning, Blackboard, Microsoft Teams, Google Meet, Zoom Meet, Telegram, etcetera (Iqbal & Campbell, 2021; Krishnan et al., 2021). Through the current Covid-19 pandemic, online teaching and learning – accelerated precipitously – and has become an emerging practice globally. Conventional face-to-face classes in HEIs have shifted to online teaching and learning. For Devkota (2021:152), "Of course, the students who have benefitted are those who live in urban spaces and have better access to digital equipment and internet have benefitted than their rural peers."

Recent developments of eLearning technologies

Literature suggests that DE remains decentralised in the department in which it functions (Nsamba, 2019; Xiao, 2018; Zawada, 2019). Daniel (2012: 90) mentions Tony Bates who refers to the "Lone Ranger" approach which occurs when a lecturer or student works independently away from the support of others. Arguably, this approach does not lead to sustainability and consistent quality of DE. Selvaras (2019) conducted a study and found that most of the ODL learners in Sri Lanka had access to technology through mobile phones and were acquainted with blended learning (hybrid learning style which fuses online and traditional modes of learning). The study found that although they favoured distance learning, they did not enjoy learning in isolation. Learners, thus, chose to use social media and mobile application modes as part of blended learning. It seems as though ODL learners are open to blended learning where social media is used.

Lecturers are responsible for the online teaching of students within the module space. In DE, many of the face-to-face cues are lost which poses various challenges for online lecturers. For this

reason, DE students value their lecturers' online presence and lecturer-student interaction (Kyei-Blankson et al., 2016; Kgabo, 2021; Themeli & Bougia, 2016). Coker's (2018:139) study, which is framed through Garrison's Community of Inquiry (CoI) approach, found that some lecturers still find the online context to be challenging and position themselves in a traditional teaching role in relation to their students and certain lecturers reflect "emotional presence and an online pedagogy that consider (s) the emotional experience of students". This study concurs with Coker (2018:139) in that, in creating a quality culture of learning, lecturers should consider "their positioning within the frame of reference of the three foci has the potential to develop their awareness of the purpose, philosophy, and pedagogy they enact. This, in turn has the potential to develop the student experience in epistemologically relevant and culturally appropriate ways". It is argued that in systems like DE, lecturers can reduce the TD between themselves and students by portraying a consistent online and emotional presence.

The value of eLearning in ODeL and HEIs as a whole, lies in its ability to teach, operate and maintain e-learning programs anywhere, anytime, beyond just moving education and learning online (Moubayed et al., 2018; Themeli & Bougia, 2016). During the last decade, technologies like augmented reality and virtual reality have shifted the goal of education from traditional instructional delivery towards empowering students to explore their creativity. Iqbal et al. (2021) explore new emerging technologies such as touchless hand interaction and intelligent agents in the teaching and learning context. Interestingly, touchless hand interaction facilitates autonomous learning; a significant prerequisite in DE institutions, which enables students to do things instead of reading, listening and watching resources. This sophisticated technology offers new ways to develop more meaningful learning experiences and improved interaction and engagement (Iqbal & Campbell, 2021).

In both developed and developing countries, statistical studies have shown the presence of delays, uncertainties, and doubts in the implementation of eLearning technologies (Mokina & Khoronko, 2020; Tijsma et al., 2020; Vanve et al., 2016). However, to gain some insight into the efficacy of DE, Chinese students recommended combining recorded videos and live courses/streaming with more online interaction to alleviate the impact of unstable connectivity to increase students' participation (Sun et al., 2020). Moreover, Wu et al. (2021) indicate that visualization in eLearning as a trend has intensified after the onset of the pandemic as it allows students and lecturers to become aware of content that was previously not easily discoverable.

Distance Education institutions often use a blended approach to teaching and learning such as synchronous (students engaged at the same time) and asynchronous sessions. Students show a greater preference for synchronous streaming over asynchronous (McClure & Williams, 2021), however, it is argued that the latter provides students with autonomy and flexibility in the advancement of their studies (Rhode, 2009). Gather. Town (GT) is a synchronous video conferencing software which offers students the ability to move freely in a designed space where users can access 'private rooms' and engage with shared documents and files. For McClure & Williams (2021), students in a research intensive university in the United Kingdom preferred GT over Microsoft Teams as it offers effective opportunities for informal communication, which is important for students to self-pace their learning (Rhode, 2009; Themeli & Bougia, 2016). Scaffolding students through the use of various eLearning technologies and approaches may foster interaction and communication between lecturers and students which could assist is reducing TD.

On reducing transactional distance between lecturers and students

This study is underpinned by Michael Moore's (1993) theory of TD where he argues that TD is more concerned with pedagogy than the geographical separation of students and lecturers. It is a theory

that is concerned with the psychological and communication distance between the practitioner and the students. Zhang (2003) contributed to the theory by adding more complex and multifaceted factors. She defined TD as the physical, cognitive, social, psychological, and behavioural distance between practitioners and students. Transactional distance is a global theory that has been widely adopted in online education research and used as a framework to examine interaction in online education contexts. This interactionist framework is the cognitive space between lecturers and students that must be crossed; yet, it was a place of potential misunderstanding between the teacher/lecturer and the learner (Lowe, 2000; Swart & MacLeod, 2021). Ideally, this distance or space needed to be minimised or shortened. This theory was applicable to traditional face-to-face education, however, in DE, due to distinctive circumstances, lecturers and students experienced more of a distance due to geographical separation. Transactional distance is more problematic in DE as students felt more isolated, demotivated and dropped out of the system (Lowe, 2000; Moore, 1993, 1997; Swart & MacLeod, 2021). Moore suggested that the stakeholders of DE should consider three variables that affect TD: structure, dialogue and autonomy (Lowe, 2000; Swart & MacLeod, 2021).

Structure refers to the organisation of tools, strategies and instructional design that lecturers use in their teaching and dialogue refers to the interaction between lecturers and students during the DE experience. Autonomy refers to the nature and degree of responsibility and self-directedness of the student. In Figure 1 below, I illustrate that the more structure and less dialogue a lecturer exhibits, the greater the TD between the lecturer and students and the greater the responsibility of the student would be:

Transactional distance is relative and can thus be understood as a continuum from high to low TD: a module with low TD is characterised by a greater teaching presence, "interpersonal closeness, sharedness and perceived learning" among students (Huang et al., 2016: 738). It is also important to note that the theory is dynamic and not static; it varies depending on the instructional context. The chief concept in TD, which is the focus in this paper, is dialogue which has been expanded to include four categories: lecturer-student, student-student, student-content, and vicarious interaction, which students observe between others (Zhang, 2003). Moore (1993) has argued that high structure limits the responsiveness of the module to the student' needs and preferences which in turn, increased TD. However, other researchers have found that high structure can actually increase dialogue between students and, therefore, decrease TD (Huang et al., 2016).

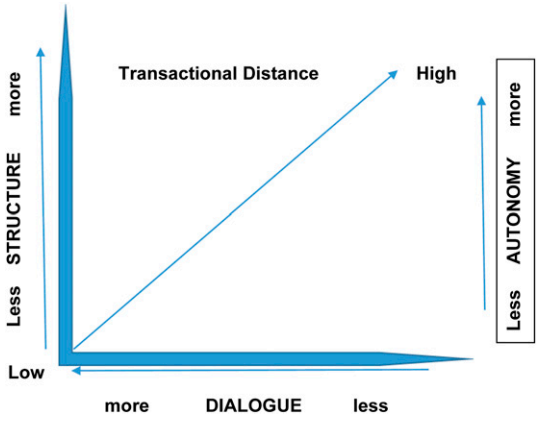

Figure 1. Illustration of Moore's theory of transactional distance.

Asynchronous resources such a discussion forums, podcasts, PowerPoint point presentations and videos, among other resources, provide additional time for students to plan their studies, access module content (McClure & Williams, 2021) and engage with the resources and each other; this can be especially effective in increasing dialogue and thus decreasing TD. For Kgabo (2021) and Quong et al. (2018), there are many opportunities that are available for lecturers to create multiple opportunities to engage interaction and increase dialogue. Discussion forums and social media can promote both student-student and lecturer-student dialogue which correlates to reduced TD. A multimodality of interactions such as the inclusion of other eLearning technologies may assist DE institutions to reduce TD. Thus, for DE lecturers to be impactful in teaching and learning, they require pedagogical skills which would enable them to engage meaningfully with students to increase dialogue.

Online education has become inexorable under the current conditions with the surge of Covid-19 cases; lecturers and students are thus forced to adapt to the 'new normal'. For an online module to be successful, the lecturer needs to create opportunities and spaces to interact with students and to encourage dialogue, social interaction and 'appropriately' structured learning materials and activities to reduce the TD in the module (Moore, 1993; Zhang, 2003; Swart & MacLeod, 2021). Conversely, the higher the structure and the lower the dialogue, the more autonomy the student must demonstrate and the greater the TD would be (Delgaty, 2018; Rhode, 2009). Interestingly, various studies (Bischoff, 1996; Chen & Willits, 1998; Kanuka et al., 2002) suggested that future research into the theory of TD should include interview or observational data which this study aims to do.

Research methodology

Research method and design

This interpretive qualitative action study seeks to reduce the TD between lecturers and students in a DE institution (Stake, 2005). Creswell (2013) states that an effective qualitative action research study provides an in-depth understanding of the situation where assertions are developed by the researcher about the overall meaning derived and is reported at the end of a study. This study uses qualitative online questionnaires, interviews and observation to investigate students' perceptions of the multimedia resources that were posted on the myUnisa Learning Management System (LMS) during the Covid-19 pandemic; as well as ascertain how lecturers in the module under study uses eLearning technologies to improve learning and reduce TD. Data was corroborated with an observation schedule to investigate if the incorporation of technological interventions in the module improved the throughput rates of the students.

A PAR design was selected for this study as it "involves researchers and participants working together to understand a problematic situation and change it for the better" (Bergold, 2007; Participatory Methods, 2018:1). Dewey (1997) argued that in a PAR context, researchers should acquire new knowledge and skills in accordance with their pedagogies; for this to happen, it is argued, researchers should promote the use of cooperation-based learning which would benefit both lecturers and students and result in 'best practice'. PAR admits that within educational settings, teachers are the individuals with authority and advantage; consequently, PAR studies motivate lecturers or researchers to participate eagerly alongside other participants such as students (Bergold, 2007). Figure 2 below shows the four processes of action were followed in this study.

Participants and sampling

In semester one of 2020, a total of 655 out of 28 755 students answered the online evaluation questions that were posted on the discussion forum on myUnisa. Random sampling was used to select 10 (6 female and 4 male) responses from students to represent the entire population of students (Cohen et al., 2007). All seven lecturers in the ENG1503 module were invited to a one-on-one interview with the researcher over a Microsoft Teams meeting. However, only 4 lecturers (3 females and 1 male) were interviewed as the other 3 were unavailable to take part in the study. However, this did not affect the quality of the study as these participants provided rich thick descriptions on their interaction with eLearning technologies to engage students in learning. Table 1 summarises the genders and pseudonyms selected for the participants.

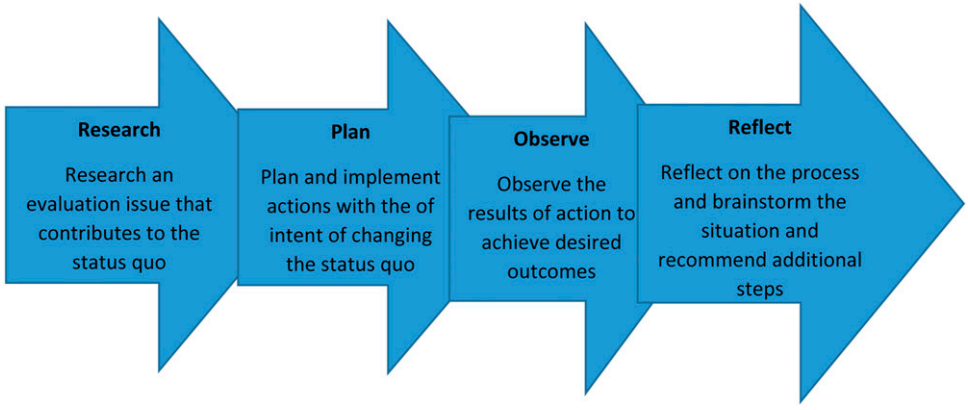

Figure 2. The PAR process that is followed in this study.

Table 1. Pseudonyms and gender of participants.

Students		Lecturers	
Xolani	Male	Dr Consuela	Female
Brenda	Female	Dr Khoza	Female
Thuli	Male	Ms Mbhele	Female
Prenola	Female	Mr Addonis	Male
Alisha	Female		
Liam	Male		
Sienna	Female		
Skye	Female		
Shannon	Male		
Hayes	Male		

Research instruments

In order to answer the three research questions, three research instruments were used: open-ended online evaluation questions for students, one-on-one interviews with lecturers and an observation schedule of module data.

Online qualitative evaluation questions were posted on the myUnisa LMS. Open-ended questions were created to allow participants to express themselves freely on a given topic. PAR requires a great willingness on the part of both students and lecturers to disclose their personal views of their module interaction, their own opinions and experiences. Only 10 responses were selected from the group to avoid an over saturation in data and analysis. This paper focuses on the students' thick descriptions from the post-evaluation questions. The 4 questions from the post-evaluation questionnaire that were asked Figure 3 that will be analysed and discussed in this paper are:

To corroborate what the students have said in the open-ended evaluation questions, the lecturers were interviewed to ensure trustworthiness of data. One-one-one interview schedules were used to answer the second research question in the study. Semi-structured one-on-one interviews were held with lecturers. According to Gani, Rathakrishnan and Krishnasamy (2020:140), "While a structured interview is considered more formalized and also limited to the prepared set of questions, a semi-structured interview is more flexible in terms of changing the order of questions and for a more extensive follow-up participants' responses". Only 4 lecturers out of 7 were available to take part on the Microsoft Teams platform. The semi-structured Figure 4 consisted of 4 questions that were asked to lecturers on a one-on-one basis:

According to Cohen et al. (2007:397), in an observation schedule "the observer adopts a passive, non-intrusive role, merely noting down the incidence of the factors being studied." The observation schedule that was used to track online activity is seen in Figure 5 below:

The data is organised to answer each of the research questions. Thematic analysis was used to analyse the data and the following themes emerged:

Open-ended online questionnaire
1. Reflect on the level of support you have received from your lecturer/s? Provide examples.
2. Do you feel there has been a strong online presence by your lecturer? Has your lecturer been helpful on this site? How else can we support you? Discuss.
3. Are you finding the podcasts helpful? Discuss.
4. Did you find the video links, PowerPoint presentations, activities and documents we have posted under the Discussion Forum and Additional Resources useful? Discuss.

Figure 3. Online-open ended questions from the post-evaluation questionnaire.

Semi-structured interview schedule:
1. Reflect on the challenges you have encountered teaching the ENG1503 module during the Covid-19 pandemic.
2. Have you shown a strong online presence on the LMS? Discuss.
3. Do you think that the active discussion forum, numerous podcasts, activities and additional resources that were created and posted on the LMS have benefitted the students? Discuss.
4. Is there is gap between yourself and the students in terms of the accessibility and understanding of ENG1503 content? If so, what do you think is the cause of this gap? How can we reduce this gap?

Figure 4. Semi-structured interview questions for lecturers.

Structured observation schedule
1. Describe the participation of students on theENG1503 module LMS prior to the implementation of innovative and active teaching. 2. Discuss the participation of students on the ENG1503 module LMS during the implementation of technological interventions 3. What impact has the online innovation made on the students in the ENG1503 module?

Figure 5. Structured observation schedule used to track online activity of students.

- How students perceive the online presence of lecturers;
- Lecturers on reducing transactional distance;
- The impact of the implementation of eLearning technologies.

Discussion of findings

How students perceive the online presence of lecturers

In relation to the first research question, which sought to understand if students felt supported through an online presence during the Covid-19 pandemic, most students in the open-ended evaluation questions documented that they had felt supported. These are the verbatim responses of two students:

> I am impressed with the support I received for this module from lecture they done they utmost best to give out the support from online sessions on Microsoft teams and the podcasts (Shannon, Online Open-ended evaluation).

> The ENG1503 lecturers were really the best, helpful & committed to team of lecturers especially during the pandemic. I was surprised how long distance learning suddenly seem not so distant and lonely as I had feared it would be. The live interactions and the podcasts before assignments submissions were really helpful. The resources that were added really enhanced the learning experience (Xolani, Online open-ended evaluation).

To get a deeper insight into the reimaging of online education, it is believed that, because of the participatory nature of the author in the study (creation of online resources, facilitation of discussion forum), PAR is a fruitful and knowledge-generating option when it comes to researching qualitative cases in habitual practice (Bergold, 2007). A ‘safe place’ was created through the use of evaluation questions to elicit data for the first research question. This research method further created an open-space for the students to express their domination-free discourse. Students were expressive when it came to answering the question on whether they felt that their lecturer exhibited a strong online presence:

> Thus far a generous amount of activities have been added to assist students. I get the feeling that the lecturer understands that English might be a challenge to students as they hail from all walks of life (Prenola, Online open-ended evaluation).

> The lecturers are very active in helping us with every single assessment and assignment we have to complete. It is quite humbling and encouraging to have such podcasts that boost our confidence. You explained everything perfectly and I understood every word you said. You motivated me so much

> especially now that we are all faced with this global pandemic. I really appreciate your effort and the believe (*sic*) that you have in us as students. I am more than confident that I'll do my best with my portfolio exam. Thank you very much for the profound work that you have done (Sienna, Online open-ended evaluation).

From these responses, it seems as if the students appreciate when their lecturers exhibit a strong presence in the module. Students appreciated the extra effort that was made by the lecturers to record podcasts, to breakdown assignments, to provide motivation once in a while, and also the ability of the lecturer to get down to their level and to understand that "they hail from all walks of life" (Prenola, open-ended evaluation). The reduction of TD is a reciprocal process and, interestingly, I have experienced a deepening 'sharedness' as a result of the shift in my perceptions as I realised that more than a social presence, students latched onto the emotional presence of their lecturers (Huang et al., 2016). It must be noted that the majority of these students are regarded as marginalised for many reasons (they speak English as an additional language or they do not have access to data, for example), but PAR enables these students to make their voices heard (Bergold, 2007). For one student,

> The only communication (I had with the lecturers) was on email through announcements, which was fine for me. (The) Module site was easy to use. I cannot say much about the online presence of the lecturers at the moment because I hardly log in because of not having enough data and network is always a problem to me (Skye, open-ended evaluation).

One would argue that little to no access to data and internet connectivity increases the TD by closing the communication space and reducing the lecturer-student dialogue (Moore, 1993). Unfortunately, data costs are high in South Africa and bandwidth varies in different locations; however, it must be noted that myUNISA, the LMS, is free to access for all students on certain telecommunication networks.

To corroborate the findings of the students' perspectives, the same question was posed to lecturers and the response was interesting. All four lecturers noted that they exhibited an online presence, according to one lecturer:

> I tried to visit the discussion forum as often as possible, sometimes daily in order to keep abreast with our students' discussions, problems and queries. Although we were given a schedule, many team members did not adhere to the schedule and this only further motivated me to visit the discussion forum as often as possible. I believe that the discussion forum gives us a rare opportunity to engage with our students. It is a space in which we do not only 'speak' to our students, but perhaps more importantly, it is a space in which we can 'listen' to our students (Dr Consuela, Interview)

As Dr Consuela mentioned, a few team members did not follow the discussion forum schedule or roster and did not answer queries during their respective dates; however, she has made an effort to visit the discussion forum constantly as it is the only "space" we have to talk to our students. For one lecturer, the response yielded a somewhat different response:

> I have shown my presence on the discussion forum, but I'm not satisfied. In my opinion, the LMS is an online teaching tool and if it is not used for teaching then somehow someone is not doing their job. I formed part of the podcast team and that was one of the contributions I (have) made. Somehow, I was present. I also recorded two podcasts alone, I'm grateful that my mentor motivated me to prepare the

> reference and the essay writing podcasts (referring to the researcher). We need people who are truly devoted to an online teaching like her (Ms Mbhele, Interview).

It must be noted that not all lecturers have shown a 'regular' online presence. Some participated on the discussion forum once and then were absent on the forum for the rest of the semester. Some never participated on the discussion forum at all. Some lecturers participated every day. Arguably, the active and visible online presence of a few lecturers on the site did narrow the TD gap by increasing dialogue between the students and the lecturers (Moore, 1993, 1997). However, for Huang et al. (2016), raising dialogue may not necessarily decrease TD as the lack of lecturer participation may complicate the association between high structure and dialogue and increase the TD. However, it is important to note again that TD varies in different instructional contexts as it is a dynamic theory. A persistent and systematic interaction between a lecturer and student is essential to spark a motivation. Despite the argument raised by Huang et al. (2016) above, the lecturers in the case of ENG1503 have provided continuous opportunities for dialogue or social interaction and 'appropriately' structured learning materials and activities and have reduced the TD in the module (Moore, 1993, 1997). At this point, any interaction or communication is significant to decrease TD and increase teaching and learning in HEIs. Online education in DE can be reimaged to support first-year students which has been evident in the findings gathered from the evaluation questions with students and the one-on-one interviews with lecturers. Practitioners in DE can use these findings as evidence that showing a strong social, emotional and teaching presence online, by creating and facilitating discussion forums, podcasts, live streams, power point presentations with voiceovers and ongoing announcements has a tremendous impact on supporting students and thereby reducing the TD gap.

Lecturers on reducing transactional distance

The second research question sought to explore how lecturers in ENG1503 use eLearning technologies to decrease the TD gap between themselves and the students during the pandemic. To answer this research question, the researcher conducted one-on-one interviews with four lecturers via Microsoft Teams and interesting descriptions were elicited. In response to a question, which probed on what technological resources lecturers created in the module to support students during the pandemic, it was noted by Dr Consuela that:

> Along with my colleague (the researcher), we designed, wrote and recorded a number of podcasts which we uploaded onto the LMS. These podcasts proved to be a success with our students as they served as a bridge between students and lecturers. In addition, we uploaded additional resources (such as video lectures, PowerPoint presentations and content-related web links) onto the LMS. Even though I am busy with my PhD, I created a space on the forum for students to reflect on their experiences and challenges during the nationwide lockdown (Dr Consuela, Interview).

The three other lecturers did not create podcasts or additional resources but did contribute by answering students' queries on the discussion forum. According to one lecturer participant:

> The support I have given students was not as sufficient as I would have liked it to be. I have followed the discussion forum schedule promptly, even so, I couldn't create any resources because I had line up of commitments. One of the commitments that stole my time has been my own Master's study and I forget about other things (such as supporting students) (Ms Mbhele, Interview).

Ms Mbhele admitted that she would have liked to have supported the students more than just responding to queries on the discussion forum. She also noted that the extra work of studying towards her Master's degree prevented her from using technology to support the students. All lecturers should provide effective and successful online instruction; more so during the pandemic. However, this was not the case in the ENG1503 module. This links to Nsamba's (2019) findings where she notes that many lecturers are still at the 'basic' level on the Maturity Assessment Framework for Open Distance E-Learning. Stemming from this finding, the question that should be asked is, why are lecturers in DE institutions still not prepared for the implementation of eLearning technologies? Lecturers' reluctance to engage with eLearning technologies will only increase the TD gap between both lecturers and students, students and students and students and the content knowledge (Moore, 1993, 1997; Zhang, 2003). There is a need to facilitate dialogue between the above mentioned constructs and this can be done by creating and fostering sense of community between lecturers and students and the content knowledge; this is what is referred to as a community of practice. This is a discussion for another paper. This study, however, seeks to understand if the implementation of eLearning technologies decreases the TD gap between the lecturers and the students. The lecturers were asked if they believed there is a gap between lecturers and students regarding the accessibility and the epistemology of the module, what they think is the cause of the gap and how we can overcome this gap. The responses were varied but useful in coming to a resolution. Two lecturers maintained that there is no gap between the students and the lecturers in the module:

> I do not think there is a gap that we should be concerned about except our students seem to lack the desire to read the given material (Mr Addonis, Interview).

No. There is a failure of students to engage with lecturers and etutors. Students are also dependant on other unofficial platforms e.g. Telegram (Dr Khoza, Interview)

To facilitate a quality culture of learning and to reimage the way in which we view online education, lecturers should understand that a gap does exist between lecturers and students; especially at UNISA; a university with extremely high diversity and student numbers. If lecturers admit that this gap exists, then we can start supporting students effectively. As lecturers, we need to introspect and reflect on our own pedagogies before we shift the blame onto our students. Zawada (2019:15) echoes similar sentiments by noting that we do have a QA system in place but "consistent, efficient and effective implementation may not be evenly spread across the institution". Two lecturers, in contrast, noted that there is a blatant gap between the lecturers and the students:

> The gap is always going to be there, even after the student has completed the module. The gap exists because learning is an ongoing process. There's a lot (of content) to cover within 6 weeks. The time is not enough. It's rare to produce quality if you are inundated with work. There are times when students seek help with content through emails you just provide a little (information) because there are 50 more emails, and there are other module commitments waiting for you (Ms Mbhele, Interview).

The response by Ms Mbhele is concerning as the researcher can affirm that there is little time to complete the syllabus and lecturers are under pressure to further their studies if they do not have a PhD, teach three modules with large numbers, supervise Master's and doctoral students, create online resources, support students and ensure their successful progression each semester.

> There is most certainly a gap and I believe that the gap continues to get wider. I believe that lecturers at UNISA tend to sit at a comfortable distance from the students literally and figuratively. In a 'white tower' so to speak. We are not in touch with our students and their needs. We simply accept registrations by the thousands, send out tutorial letters and study guides and wait for assignments. The gap is caused by academics who engage in isolated research on what they think students should be learning (Dr Consuela, Interview)

It is evident that lecturers have very different perspectives of the gap between lecturers and students. In spite of the gap that arguably exists at our institution, my mind was troubled about this and it was for this reason that I have started to create and motivate other team members to create podcasts and interactive PowerPoint presentations, video lectures and have regular communication with the students (via the discussion forum, Email announcements, Telegram, Whatsapp and short message services). I was successful in encouraging two out of seven lecturers to use a few eLearning technologies to teach students.

From Figure 6 above, it is argued that we have managed to decrease the TD between lecturers and the students. If all lecturers in the module were active in the creation of eLearning technologies and supported the students this gap would perhaps be much smaller. A TD ecology reaches its full potential when students communicate, interact and are motivated (Schreiber & Jansz, 2019; Selvaras, 2019; Zhang, 2003). I do acknowledge that this practice is a work in progress and the more dialogue we engage the students in and the more open we are regarding the structure of our resources, students would feel more supported and there would be a greater success rate in the module.

The impact of the implementation of eLearning technologies

To answer the third research question regarding the impact of the implementation of technological interventions in the module has on the students, data was recorded and elicited from a structured observation schedule:

In Figure 7 above, two screenshots were taken from the ENG1503 statistics on the LMS to compare the participation rates of the students in the module. In semester 2 of 2019, we had a student group of approximately 18 000 students and in semester 1 of 2020 we had group of 27 000 students. The numbers that appear in Figure 7 reflects the visits by students in a month over the semesters. The

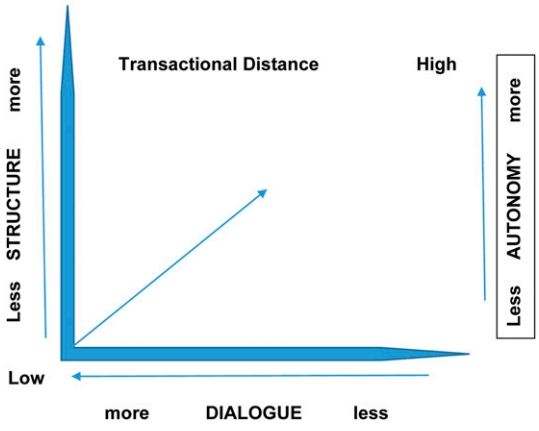

Figure 6. Transactional distance between lecturers and students in the ENG1503 module.

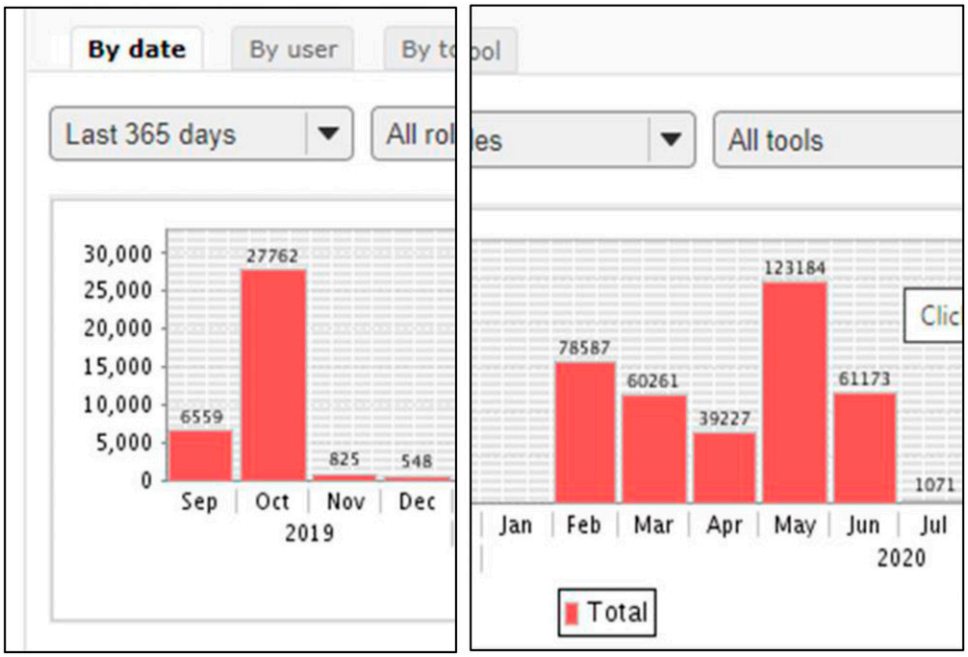

Figure 7. Participation on the ENG1503 module during semester 2 of 2019 and semester 1 of 2020.

student activity is considerably higher in semester 1 of 2020 during the lockdown. The increased participation of students equates to the increased online social presence of the lecturers in the module. In semester 2 of 2019, there was an online presence of lecturers; however, it was to basically answer queries and post web links and pdf resources. In semester 1 of 2020, the impact of lecturers have increased by including various podcasts to assist with each assignment and the examination as well as video lectures and interactive PowerPoint presentations. Three lecturers have been active in posting activities as well as announcements to keep the students motivated. Students were more active during the lockdown period as the South African economy had come to a halt and that gave students more time to engage with their lecturers and module content. In the observation schedule, it was also noted that students were interested in the additional resources that were posted:

In Figure 8 above, it is clear that students were drawn towards the tutorial letters, podcasts and the PowerPoint presentations with voice overs in the additional resources. It must be mentioned that the numbers that are reflected in the figure above are not the actual numbers of students who have accessed these resources. Students share these resources via Whatsapp groups, Telegram, Facebook and email. Many students who do not have access to data would depend on the secondary transfer of these resources. The impact that active online teaching on the students' performance was relatively positive. The pass rate has increased from 65% in semester 2 of 2019 to 72% in semester 1 of 2020. Despite the onset of Covid-19 and the nationwide lockdown, the increase in the pass rate of the ENG1503 module was a huge achievement. The decreased TD resulted in improved self-regulation, autonomy, persistence, and improved results. Most students who did not pass the module are predominantly students who did not opt to write the May/June examination in 2020 (mostly due to

Report

Site:	"ENG1503-20-S1" (ENG1503-20-S1)
Activity type:	Resources
Resources action:	Read
Resources selected:	Additional Resources
Time period:	All
User selection type:	All
Report date:	20-Sep-2020 23:55

Resource	Total
ENG1503_TL102_1_2020.pdf	24923
Writing_essays_in_exams_Update_051112.pdf	21182
Portfolio assessment May 2020.pdf	17088
Assignment 1	16072
ENG1503 Study Plan_2020_Semester 1.docx	13955
The_Compare_and_contrast-Essay.ppt	13882
The_Argumentative_Essay.ppt	12333
Assignment 2 Conversation- Part 2	12304
Assignment 2 Conversation- Part 1	11826
Frequently asked questions (FAQs)	10126
ENG1503_201_1_2020.pdf	10066
ENG1503 Assignment 2 Feedback Tutorial Letter June 2020.doc	9995
ENG1503_202_1_2020.pdf	9356
ENG1503_Sample_QP_2018_6_E.pdf	8944
Read this, it will help you!.docx.pdf	8909
FAQ Podcast	8472
ENG1503_Sample_QP_2019_10_E.pdf	7628
ENG1503_Sample_QP_2019_6_E.pdf	7400
Harvard-sample-reference-list_5_May_2019.pdf	7332
EXAMINATION GUIDELINES PODCAST	7181
ENG1503_Sample_QP_2018_10_E.pdf	6960
1_What is the Online Assessment tool.pdf	6914
Gender Equality Powerpoint.pptx	6413

Figure 8. Number of students who have downloaded resources in the ENG1503 module.

the lack of devices and data) and were thus deferred to the October/November 2020 examinations free of charge –to compensate for the negative effect Covid-19 has had on our economy-Figure 8.

Limitations and ethical considerations

This study was conducted in one module in one DE institution South Africa. Further research on reducing TD in DE is encouraged by investigating the effects of the implementation of various eLearning technologies in more than one module and department. Before conducting the research, ethical clearance was applied and granted by the university's ethics committee (NHREC Registration #: Rec-240,816–052). The university policy stipulates that confidentiality and adherence to Covid-19 protocols be observed and adhered to before, during, and after the Covid-19 lockdown.

Recommendations and conclusion

Technological disruption coupled with lecturer unpreparedness was apparent during the lockdown period and this was a wakeup call for most lecturers as it became clear that the role of the lecturer had

to change from 'sage on the stage and guide on the side', to 'meddler in the middle', with significant implications for pedagogical practices.

Going with traditional e-Learning may not benefit all students (Iqbal & Campbell, 2020, 2021); there is a need for new technologies, augmented reality, artificial intelligence, machine-learning based solutions that can assist DE institutions to empower remote learning. In some learning contexts, straight podcasting, video lecturing and conferencing does not help close the TD gap; there has to be a focus on personalised learning solutions for hands-on 'kinaesthetic' learning in resource-constrained environments (Iqbal et al., 2021). Touchless real-time hand interaction in augmented reality contexts provide hands-on learning opportunities "which enhance the learning experience in STEM subjects" (Iqbal et al., 2021: 3). It would be interesting to observe how touchless interaction can be used in languages and modules which teach academic writing.

Lecturers, teachers and instructors are required to adapt positively to changes emanating from technology and should be focused on technological mastery for online implementation. This mastery does not and should not end at workshops and online trainings but should in effect be located and centralised in practice. Practitioners need to understand that their work is multifaceted which entails a lot of reimaging, especially during and after the onslaught of the pandemic. This reimaging requires lecturers to recognise the complexity and diversity of their roles in DE which supports their capacity to be creative in online spaces, socially and emotionally responsive to students -who are more distant than ever during this period- and be agile in their academic work. For this reason, I will list a few pedagogical recommendations to enhance online teaching:

- Lecturers need to understand that change is imminent and be adaptive and responsive to the world around them and that technology should be a part of the teaching process. Opportunities need to be created for students to interact;
- Lecturers need to understand their eLearning identities (whether they inhibit or value the understanding and implementation of eLearning pedagogies) and context of eLearning technologies to build their confidence in online teaching;
- The use of eLearning technologies should not just exist on a micro-level (with just a few lecturers) but at a macro-level (departments and the university as a whole);
- New lecturers coming into the university system should be trained from the onset on understanding and implementing eLearning technologies and pedagogical strategies to support students; and,
- Additionally, and very importantly, universities need to relook at their policies and interrogate the value and significance of eLearning technologies and consider these in the work allocation implications of lecturers.

The global impact of eLearning technologies have compelled many DE universities to adopt technologies to support students. The research questions in this paper attempted to understand how lecturers use eLearning technologies to decease the TD gap between themselves and the students in one English module at a DE university in South Africa. The findings revealed that a few lecturers used eLearning technologies at a micro-level while others are not part of the student support process. The creation of eLearning resources, in addition to the social and emotional presence of the lecturers on the LMS, resulted in an observed increase of student participation on the LMS; hence, the pass rate of the module was positively impacted. Even though a few lecturers created resources and participated on the LMS, it is argued that the TD between lecturers and the students had significantly decreased as compared to the previous semester. Ultimately, no matter how well we design our DE

modules and resources, we are bound to fail unless we reduce TD as it not just about geographical or spatial distance but about psychological, social, and emotional distances as well.

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