



A Reflection on Implementation of Posthumanist Pedagogy in Polytechnics in Zimbabwe during COVID-19 Era

Richard Nyika^a & Alfred Modise Motalenyane^{*bc}

* Corresponding author

Email: mamodise@cut.ac.za

a. PhD student, Central University of Technology, Free State Province, South Africa

b. Faculty of Humanities, Central University of Technology, Free State Province, South Africa.


c. Assistant Dean, Research Innovation and Engagement, Central University of Technology, Free State Province, South Africa

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ABSTRACT

The COVID-19-induced lockdown resulted in the closure of learning institutions and subsequent intermittent college attendance as a way of preventing the spread of the virus. In Zimbabwe, the Ministry of Higher and Tertiary Education, Innovation Science, and Technology Development instructed tertiary institutions to adopt online learning in addition to face-to-face learning as a way of ensuring that learning continued during COVID-19 restrictions. There was a shift from exclusively humanist education, where humans have been believed to be the only agents in the teaching and learning process, to posthumanist education, where technology was used as a tool for learning. This study explored the organisational preparedness of TVET institutions to take on board posthuman pedagogy when online learning was blended with face-to-face learning. This was a qualitative study that used observations and in-depth interviews to collect data on the institutional preparedness of two randomly sampled TVET institutions to embrace posthumanist education. Ten randomly sampled lecturers were interviewed to elicit their views and experiences of implementing blended learning, which is largely ingrained in posthuman pedagogy. An observation was made on the suitability of technological infrastructure to support blended learning. Ten randomly selected students from each institution participated in focus group discussions to elicit the organisational preparedness of institutions for blended learning. Results showed that the institutions were not ready for blended learning. Lecturers and students were not equipped or skilled to use online technologies. The infrastructure to drive online learning was inadequate. Inadequacies in the internet infrastructure affected their understanding and acceptance of online learning.

KEYWORDS

Posthuman; pedagogy; blended learning; online learning; exclusive.

INTRODUCTION

Restricted use of face-to-face teaching and learning due to COVID-19 resulted in increased use and adoption of online learning in Zimbabwean TVET institutions. During the first COVID-19 wave, all tertiary institutions were closed to avert the spread of the pandemic. The Ministry of Higher and Tertiary Education, Innovation Science, and Technology Development instructed institutions to continue offering learning services through online learning platforms. The second wave saw the piecemeal reintroduction of face-to-face instruction and the adoption of blended learning. Alternating class attendance arrangements were made to ensure that there was no overcrowding while at the same time ensuring continued learning. As a way of reducing overcrowding and the spread of the virus, half the students were allowed to have face-to-face lectures while the other half used an online learning platform. They would alternate the following week. The process proved that online learning had the potential to be more accommodating, more accessible, and more equitable than face-to-face learning. Lecturers were encouraged to use online learning technologies to facilitate learning during the period when there were no face-to-face lectures. The fusion of humans (lecturers and students) and technology saw the birth of blended learning and the introduction of a posthuman curriculum in tertiary education. Blended learning was adopted and became the most likely predominant post-COVID-19 teaching and learning pedagogy. It was the beginning of the acknowledgement that both humans and nonhumans play an important role in the learning process. Students began to learn from more-than-human educators. More than humans, other entities (such as technology) now had an equal share in facilitating learning. The inclusion of technology in facilitating learning debunked the myth that humans are the only key agents of learning and fostered collaboration among teaching approaches (Dube et al., 2022; Haraway, 2016; Madimabe & Omodan, 2021).

Organisational preparedness is very important in ensuring the successful implementation of blended learning (Watson, 2006). One of the fundamental organisational prerequisites for blended learning is the availability of technology infrastructure like internet bandwidth and virtual learning environments. Lecturers play a crucial role in providing practical approaches that help sustain students' active participation. They need to be equipped with the requisite knowledge and skills for using online technologies. This study looked at how ready institutions were to start using blended learning, with a focus on how well polytechnics could use digital technologies with the new blended learning.

Blended learning

Blended learning is a hybrid method of learning that combines face-to-face and online learning activities (Lin, 2007). Blended learning is part of the digital revolution, which was adopted by institutions of higher learning as a new mode of delivery that could help improve higher education in the post-pandemic era (Badura & Adu, 2022; Maphalala et al., 2021; Selwyn & Jandric, 2020). In Zimbabwe, it was largely adopted in tertiary institutions to complement face-to-face teaching and learning during the pandemic to ensure that learning continued while at

the same time maintaining social distance. The mode of learning saw reduced in-person contact between lecturers and students and an increase in technology-mediated and self-directed learning. The modes of learning are personal, emancipatory, and democratic (Yikici et al., 2022). It gave the students the opportunity to learn anytime and anywhere. Blended learning would give learners the opportunity to construct their own knowledge, engage in learning by doing, and engage in task-based and problem-based learning (Farr et al., 2019).

Advantages of online learning

The advantage of blended learning is that it allows educators to use more approaches and choices. Singh (2006) argues that rather than limiting student-lecturer and student-student interaction during face-to-face classes, blended learning allows online interpersonal interactions at various levels. In addition, blended learning increases the level of learning strategies such as peer-to-peer learning and learner-centred learning (Graham et al., 2003). The process engages learners in three phases of learning: self-paced learning; face-to-face learning, which focuses on active and application learning; and lastly, online learning. It is convenient and cost-effective. Online learning is flexible, and students can schedule their work and other activities. The approach combines the best of both worlds. Students and teachers take advantage of the best parts of both in-person and online learning environments. This is called getting the "best of both worlds."

According to Cook (2016), there are some posthuman curricular imperatives that must be followed. These imperatives play an important role in defining the organisational preparedness of an institution to adopt blended learning. Firstly, there should be critical media literacy. This entails having adequate knowledge of the media that are used to enhance teaching and learning. The users of the media should have the ability to learn and use today's media language. Training and practise in the interpretation and creation of realms of audio-visual and social networking are very important in this imperative. The second imperative involves the ability to get the information one needs on the internet by mining skills using ICT. This skills are important for students to adapt to online learning. The society is getting connected, and mining skills help to influence not only students' and educators' academic lives.

Posthuman pedagogy in blended learning

Posthuman pedagogy is the practise of ideas that are found in posthuman thinking (Mustola, 2019). According to Lili et al. (2020), posthuman pedagogy is characterised by the learner, teaching content, technology (nonhuman), and ethics (the democratic and expansive form of education). The pedagogy believes that students are knowledge producers rather than knowledge consumers (Murriss, 2017). Unlike the traditional view of learning, which focused on human-to-human interaction (learner-teacher, learner-learner, and learner-agent), posthuman pedagogy focuses on the learning that takes place through the relationship between the learner and technology. It is a decentring process where the human is removed from a centric position in the learning process. The ubiquity of digital technologies, virtual learning environments, and mobile services has been integrated with face-to-face learning to create blended learning. It has

facilitated the dissolution of human borders in teaching and learning (Braidotti, 2013). The advent of technology helped redefine learning. Both human and nonhuman agents facilitate learning. This type of relationship is key to making hybrid learning a success. It helps to remove human-centred discourse from education and usher in a mixture of human (animal) and machine thinking, and this hybrid is a worthy and necessary replacement for human centrism. The humanist perspective views learners as empty tins waiting to be filled by the knowledge of the educators (Murriss, 2016; Freire, 1970). Unlike humanism, posthumanism considers learners and educators to be co-creators of knowledge; the learner does not occupy an inferior role but is engaged in self-directed learning in which he or she is actively involved in the creation of knowledge. Self-directed learning enables the learner to autonomously fill educational gaps through discovery and learn with the aid of technology. Furthermore, technology enables the learner to engage in heutagogy. The educator and learner's relationship are recalibrated in such a manner that the two are on a co-created journey of discovery and acquisition of knowledge content (Blaikie et al., 2020).

According to Bateston (1972), the meeting of humans and intelligent machines results in three major things. Firstly, the complete fusion of the two marks the birth of posthumanism educators. The use of technology enables educators to teach and to be taught. Secondly, the technology makes the educators' jobs obsolete since one can learn anything without direct interaction with a human educator. The educators see the value of their service declining. Furthermore, the education system constrains the educator to teach the same old things in the same way. Thirdly, the educator and technology co-exist and perform separate and clearly delineated roles; anti-posthuman teachers favour this arrangement since their role remains unchanged by technology. For example, PowerPoint allows the computer to replace the chalkboard.

The traditional view that knowledge is grounded in human beings, which operates on binaries as a hierarchy that separates the mind from the body and humans from nonhumans is getting challenged (Braidotti, 2019). McCormack (2020), argues that humanist knowledge justifies the use and exploitation of some humans, nonhumans, and the environment. They further argue that the world requires a new mode of teaching and learning that disrupts this old way of thinking and replaces it with new knowledge. It was important to step away from the humanist point of view and adopt a new mode of teaching and learning.

Posthuman pedagogy ensures knowledge-directed learning rather than educator- or learner-centred learning. It requires the construction of new knowledge-learning environments. The technological environment plays a fundamental role in posthuman pedagogy. The environment requires techno-literacy. Both educators and learners should have knowledge of the new technology. In a posthuman pedagogy, there is a need to focus on what is to be learnt, how it is to be learnt (taught), and how learning is to be organised.

Online learning

Online learning is a flexible learning approach that has gained interest during the COVID-19-induced lockdown due to its capability to ensure social distancing and continued learning during the pandemic. Online learning is touted as providing a flexible, democratic, and desirable approach to learning (Blayone et al., 2017). It is a technology-enhanced teaching and learning approach that promotes learning and engagement. Learning has been defined as not only situated in the human world but also having a nonhuman dimension. Technology is a tool used in posthuman pedagogy. It blurs the line between material and virtual. It is a nonhuman actor added to the teaching and learning process (Strom et al., 2018). There are many advantages that can be accrued from using an online learning approach. Firstly, it provides a flexible learning environment. Secondly, it improves access to learning. Thirdly, it is cost-effective, and lastly, it improves pedagogical practices. It also improves learner participation.

Statement of the Problem

Blended learning has increased exponentially during the COVID-19 era. COVID-19 restrictions prompted the need to integrate face-to-face learning with online learning to ensure that learning continued. At the peak of the pandemic, there was a total restriction on face-to-face interaction. Internet-based instruction was introduced, resulting in reduced face-to-face contact between students and their lecturers. For students and lecturers, this was a departure from the familiar face-to-face teaching and learning to which they were accustomed. Adopting to a new teaching and learning approach is a daunting task, particularly if one is asked to do so on short notice (Kenny & Newcombe, 2011). A nonhuman dimension to teaching and learning (technology) was adopted in order to rescue teaching and learning from the crisis created by the pandemic. This prompted the need for the adoption of posthuman pedagogy in blended learning. This study sought to explore the organisational preparedness of TVET institutions for blended learning, in which posthuman pedagogy was a key factor in teaching and learning.

Research questions

- How prepared were TVET institutions for the implementation of posthuman pedagogy?
- What challenges did the institutions face in implementing blended learning which was rooted in posthuman pedagogy?

METHODOLOGY

This was a qualitative study that used observations and in-depth interviews to collect data on the institutional preparedness of two randomly sampled Polytechnics in Zimbabwe. An assessment was made of the readiness of the institutions to support online learning. Ten randomly sampled male and female lecturers from the Engineering Department were interviewed to elicit their views and experiences of implementing blended learning. Borg and Gall (1999) argue that randomisation reduces the chances of research bias. An observation was made on the suitability and adequacy of technological infrastructure to support blended learning. Two twenty-minute focus group discussions with six students each were held at each

college to explore the students' experiences and views of how their institutions were prepared to implement blended learning, which was engrained in posthuman pedagogy. Vice Principals and Heads of Departments were interviewed to elicit information on the preparedness of the institution for blended learning. The use of multiple methods of collecting data, or triangulation, reflected an attempt to secure an in-depth understanding of the organisational preparedness of the institution to integrate posthumanism in blended learning. Denzin and Lincoln (2000) argue that it adds rigor, depth, richness, and complexity to inquiry.

FINDINGS

Preparedness of the lecturers to use technology as teaching and learning tools

The institution conducted workshops to capacitate lecturers on the use of online teaching and learning approaches that could be used. Lecturers indicated that once-off training was not enough. Furthermore, many lecturers confessed their inability to master the use of ICT for online learning. More training sessions were needed. However, many sessions were not feasible during the pandemic. Lecturers indicated that knowledge of online learning was limited to the staff and the information and communication lecturers only. Most of them were not techno literate and had challenges understanding the complexities of using online teaching modes. Gourlay (2011) argues that digitally mediated technologies in higher education have led to new repertoires of engagement. Google Class, Moodle, Zoom, Google Meet and Teams were completely new platforms for facilitating learning. The need to use and apply them on the spot caused them a lot of trouble, as shown by the following comments:

Being told to adopt online teaching approach without thorough training of the use of online technologies is a challenge. For us to be good educators, we need to spend more time on training.

We did not have adequate technology and some of us are technophobic.

The remarks were indicative of lecturers' unpreparedness to adopt online learning. Learners who were forced to abruptly stop face-to-face learning had no idea how to be part of an online class. They indicated a lack of technological efficacy. Oliver (2011) argues that technology engenders hard determinism (causes inevitable social change or drivers of change) and humans have complete autonomy as educators' drivers of change (soft determinism). With limited knowledge of ICT, it would be difficult for lecturers to embrace blended learning. This became a motivating factor against the implementation of blended learning. Cancer (2016) asserts that blended learning environments require enthusiastic instructors who are keen on computer skills. Lecturers therefore needed to have the requisite computer skills to effectively implement blended learning.

Furthermore, some interviewed lecturers and students indicated that they did not want to give up social and human contact, which they were accustomed to during face-to-face lectures. In most cases, students indicated that they felt that they could not learn anything in the absence of a lecturer. Some lecturers did not want to release the grip of teaching and

learning. These lecturers were anthropocentric and believed that no teaching or learning could take place in their absence. They believed that they were the only source of knowledge. One could believe that these were the lecturers who were not familiar with ICT and online teaching approaches. Kirkwood and Price (2014) say that people who do not know how to use ICT and online teaching methods may not be able to learn online.

Preparedness for posthuman pedagogy

Even if ICT was used to enhance blended learning, posthuman thinking was missing in the way lecturers delivered content to students. Interviewed lecturers felt that they were the centre of teaching and learning, as indicated by the following remarks:

I must make notes and post them on students' emails or website so that they prepare for examinations.

Noteworthy from the remarks was the fact that teaching and learning were human-centred. Online delivery of content to learners became a substitute for face-to-face teaching and learning. The two should complement each other. Students were not given the opportunity to create knowledge through technology-enhanced instruction. They were simply given notes to prepare them for examination. There was a need to create a technology-enhanced community of learning amongst students. Disposing of notes online did not promote an online community of learners. Most lecturers confessed to having challenges of creating an online community of learners.

I did not know how to connect to conduct a class on zoom and the students did not know either.

I did know how to present my content. How would I make illustration in the absent of a board?

The remarks showed that lecturers have not developed posthuman thinking, and it might take time for them to change human-centred discourse in education. They had limited knowledge of online teaching and learning. There was a need to train the staff on computer-aided teaching and learning. Observation also showed that in some institutions, basic ICT infrastructure like the internet and computers were available, but lecturers were not making the best use of them in enhancing blended learning with ICT.

Students' readiness for blended learning

Students felt that they lost the usual human contact during learning and were not adequately prepared for the new mode of learning, as indicated by the following remarks:

Learning alone makes me feel as if I am not part of the class. More so, I am not able to uses online technologies which are important for online learnings.

We had not been taught how to use online teaching method, like Google Meet, Google classroom and zoom.

We needed face-to-face instructions on how to use the new online teaching and learning methods, I could not do it alone.

Noteworthy from the remarks was that posthuman thinking was also missing in the students. Rasheed et al. (2020) assert that the introduction of blended learning resulted in the loss of personal teacher-student and student-teacher relationships. Both students and teachers felt human contact was the best means of ensuring that learning took place. This could be a result of both lacking requisite technological skills. The fact that the students had no skills or knowledge of how to use online technologies might mean that the TVET institutions were not prepared for online teaching and learning. Before COVID-19, the teaching and learning mode was largely face-to-face. The advent of the disease caught both students and lecturers unaware. The ability to adapt to online learning was only possible for students and lecturers who were techno-literate. Most students, particularly male students, were digital natives, and as a result, they were able to quickly adapt to it. Students who were not technologically literate preferred face-to-face instruction.

Infrastructural preparedness for blended learning

Blended learning requires intensive use of technology. ICT plays an important role in facilitating learning in the absence of the human factor. It empowers learners to have self-directed learning. This implied that the success of blended learning hinged on the availability of technological infrastructure. This included the internet, computers, and smart phones. Interviewed lecturers and students confirmed computers and smartphones were available, but internet infrastructure, which was key in enabling online teaching and learning, was a militating factor against adoption of online teaching and learning. Larlima and Dangwal (2017) argue that blended learning is an innovative concept and requires the use of ICT to support it. Institutions were unable to provide internet services for lecturers' online learning services. Students who did not participate in online learning had problems with the internet, as shown by the following comments:

I did not have internet connection to enable me to attend Google Meet lessons as a result, I was excluded from online classes

I cannot afford to purchase data bundle to enable me to be connected on the internet and join online lessons

Internet connectivity was cited as a major militating factor against the adoption of blended learning. Keramati et al. (2012) argue that technological infrastructure is a very important variable in e-learning. For viable blended learning to take place, it was important to ensure uninterrupted and constant internet services. The students only benefited when they had face-to-face contact with lecturers. Humanist pedagogy remained predominant. Thus, TVET institutions should prepare an adequate technological environment to enhance posthuman thinking, teaching, and learning during blended learning. In the absence of an adequate technological environment, teaching and learning remained human-centred, and the success of blended learning was severely affected.

DISCUSSION AND IMPLICATIONS

The purpose of this study was to explore the organisational preparedness of TVET institutions in Zimbabwe for implementing blended learning. We discuss the findings, drawing on the premises of the application of posthuman pedagogy in blended learning. Blended learning was supposed to usher in an intra-active pedagogy where the two pedagogies complemented each other. Learners are not only restricted to the idea that learning only takes place in a building. Posthumanism makes educators and learners understand that teaching and learning take place in and from space and places (UNESCO, 2020). Teaching and learning take place in a more expansive and inclusive setting. The Polytechnics were not prepared for learning in and from space. The new setting dismantled the humanist structures that existed before COVID-19, when learning institutions were structured around educator–learner binaries (Braidotti, 2019).

Infusing posthuman pedagogy into blended learning requires dislodging the human from assuming the centric position in the teaching and learning situation. It requires the addition of technology (a nonhuman factor) and the creation of a technological environment. This means educators should be prepared to give up the grip they used to have in the teaching and learning situation. They should discard the belief that learners' minds are empty vessels waiting to be filled with knowledge from the educators (Freire, 1970; Murriss, 2016). Educators should understand that the integration of posthumanism in blended learning entails the co-creation of knowledge by the educator and learner. The learner is no longer destined to occupy an inferior position in the teaching and learning process. The introduction of posthumanism should send a message to educators that traditional human-centred learning is phasing out (Howlett, 2018).

Lecturers should be able to not only co-exist with technology but also effectively use it. Techno literacy is very important and is a fundamental requirement for the implementation of posthuman pedagogy. Observation showed that lecturers had limited techno literacy to enable them to embrace posthuman pedagogy, which is a key factor in blended learning. Lecturers need to have adequate knowledge of the use of technologies because they are the key facilitators of posthuman pedagogy. They help to de-humanise learning and empower students to have self-directed learning. Findings showed that they were unwilling to lose the command they used to have. Lack of techno-literacy was another militating factor. It can be concluded that lecturers were not ready for the inclusion of posthuman pedagogy in blended learning.

The adoption of online learning was a reactive measure to rescue the teaching and learning crisis, high demand for education, and restrictions created by COVID-19. This engendered a combination of face-to-face teaching and learning (blended learning). Technology, a posthuman teaching and learning tool, assumed a central role. Results showed that TVET institutions were not adequately prepared to embrace technology-driven posthuman pedagogy. Lecturers were not techno literate, internet infrastructure was inadequate, and it was difficult for both students and lecturers to lose the human contact they were used to. The study is of the opinion that TVET institutions should conduct staff development workshops to equip lecturers on the use of ICT in online learning so that the lecturers will be able to confidently use them for blended learning. ICT is now part of the fabric of our existence, and

the environment in which we live is rich in media technology (Lewis, 2021). As a result, they should be able to use them efficiently. The study also is of the view that students should have a module on blended learning so that they will be able to embrace it during their learning. The study further indicated that lecturers and students in TVET institutions should be trained in the adoption of blended learning. The institutions should provide adequate technological infrastructure to facilitate posthuman thinking during learning.

CONCLUSION

The paper highlighted that the coming of COVID-19 gave impetus to the adoption of blended learning to ensure that students continued learning. Blended learning ushered in the introduction of posthuman pedagogy when technology decentred teaching and learning from lecturer-centred face-to-face learning to technology and self-managed learning. Results showed that Polytechnics, students, and lecturers were not adequately prepared for posthuman pedagogy. Lecturers did not adapt to the new pedagogy because there were not enough technological infrastructure and they had limited knowledge of it.

Recommendations

Considering the identified findings, the study makes the following recommendations:

- Polytechnics in Zimbabwe need to improve their internet infrastructure to ensure smooth online teaching and learning.
- Lecturers and students need to be capacitated on the use of online learning tools to ensure their success of blended learning and the application of posthuman pedagogy.

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