

Covid-19 Pandemic and Pedagogic Learning Innovations in the 'New' Classroom: Views from educators in the Global North and South

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ABSTRACT

This study analyzed the educational practices and innovations applied by educators in the Global North and South during the COVID-19 pandemic. The goal was to identify the nuances and factors driving learning innovations in different contexts and the implications for hybridizing higher education. Using case studies of two universities in the USA and Zimbabwe, the objectives were to identify the e-learning platforms employed to meet teaching and learning demands, to unearth other societal factors apart from COVID-19, to shape the utilization of e-learning platforms, and to understand educators' perspectives on their roles in the 'new' classroom. Utilizing e-learning theory, the qualitative research employed in-depth interviews with 19 faculty from both universities. The findings reveal contextual factors such as socio-economic conditions, digital divide, and institutional policies that inform the choice of learning platforms, specifically Zoom in the North and WhatsApp and Google Classroom in the South.

Keywords:

Pedagogic Learning Innovations; E-learning; New Classroom; Higher Education.

ABSTRAK

Studi ini menganalisis praktik pedagogi dan inovasi yang diterapkan oleh para pendidik di wilayah Utara dan Selatan pasca pandemi Covid-19. Tujuannya adalah untuk mengidentifikasi nuansa dan faktor yang mendorong inovasi pembelajaran dalam berbagai konteks dan implikasinya terhadap hibridisasi pendidikan tinggi. Dengan menggunakan studi kasus dari dua universitas di AS dan Zimbabwe, tujuannya adalah untuk mengidentifikasi platform e-learning yang digunakan untuk memenuhi tuntutan pengajaran

dan pembelajaran, untuk menggali faktor-faktor sosial lainnya, selain dari Covid-19, yang membentuk pemanfaatan e-learning platform, dan yang terakhir, untuk memahami perspektif pendidik mengenai peran mereka di kelas 'baru'. Dengan menggunakan teori e-learning, penelitian kualitatif menggunakan wawancara mendalam terhadap 19 dosen dari kedua universitas. Temuan ini mengungkapkan adanya keterkaitan antara faktor-faktor kontekstual seperti kondisi sosio-ekonomi, kesenjangan digital, dan kebijakan kelembagaan yang mempengaruhi pilihan platform pembelajaran, khususnya Zoom di wilayah Utara, serta WhatsApp dan Google Classroom di wilayah Selatan.

Kata kunci:

Inovasi Pembelajaran Pedagogik; Pembelajaran Elektronik; Ruang Kelas Baru; Pendidikan Tinggi.

1. Introduction

Over the past decades, higher education institutions have witnessed an evolution to a new model of university (Fernandez et al., 2023). These changes have not occurred within the management processes or the operational level of conducting business alone – but throughout all university processes, including teaching and learning. Many factors have been identified as driving the technological changes occurring within HEIs. Higher education institutions (HEIs) currently face the most significant challenge, with a new wave of students' expectations never experienced before. Today's students demand a flexible, personalized, and real-time educational experience (Fernandez et al., 2023) – thanks to digitization and digital transformation. The global pandemic Covid-19 quickened the pace of technological transformations, with academic institutions globally adopting cloud-based technologies for student relationship management (CRM applications), Learning management systems or virtual environments (LMS), assessment-based applications, and many other technologies (Bahja et al. 2021; Turnbull et al. 2022). When Covid-19 hit, online education was viewed as an effective solution to address school closures and avoid interrupting schooling. The sudden shift in the teaching and learning process caught many institutions and faculty members in both developed and developing countries unaware, and both HEIs and individual faculty had no choice but to migrate to online classes with minimal resources and little or no digital literacy skills. With the global COVID-19 pandemic said to be here to stay, online education has led to questions regarding the likely effects of online learning on students, educators, and the education sector (Bahja et al., 2021). The majority of research within the area of technological changes within the HEI sector, especially teaching and learning technologies, has primarily focused on the adoption of e-learning and the readiness of institutions (for example, Tarisayi & Munyaradzi, 2021; Maphosa, 2021; Keengwe & Kidd's 2010; Mahlangu & Makwasha 2023; Chugh et al., 202), the challenges faced by lecturers and students (for example Bowden, 2021; Chimbunde, 2021; Sibanda, 2022), challenges of implementing e-learning in higher education institutions (Bates, 2019) and implementation and impact of these technologies (Bahja et al., 2021). Studies focusing on the latter have adopted mainly

an institution-wide (macro) approach to online education and overlooked individual lecturers' specific innovations and actual appropriation of technological tools for e-learning purposes in particular learning environments in different contexts and the effect of these. The argument we proffer in this paper is that such an approach unearths a nuanced understanding of how e-learning allows for different appropriations of technology for other educational purposes in various contextual settings. Thus, through the faculty members' perspectives and lived experiences, the questions addressed specific e-learning methods appropriated to meet course demands and learner needs, factors driving these particular innovations, and the educators' perceptions of their roles in the new classroom.

1.1 The concept of E-learning and the 'New' classroom

Generally, digital transformation in the context of the higher education sector has primarily been concerned with the development of advanced and effective methods and practices that enable HEIs to meet their missions – key among which is ensuring the provision of education and research services that are in line with the needs of the students. The onset of the global pandemic COVID-19 quickened the pace of technological adaptation by most higher education institutions, especially in teaching and learning, to ensure that schooling was not disrupted by the sudden closures of campuses as one of the measures implemented to contain the pandemic. HEIs were forced to implement hybrid learning - the blending and mixing of the learning environments: face-to-face classroom instruction and online environment (Doering, 2006; Alshammary & Alhalafawy, 2023). According to Kumar (2012, p. 347), hybrid or blended learning aims to provide the most efficient and practical teaching experience by combining delivery modalities. E-learning is, therefore, a generalized channel of hybrid or blended learning (AlNajdi, 2014). E-learning is a means of implementing education that fits the paradigms of hybrid learning (Nichols, 2003). Thus, e-learning, by allowing teaching and implementing various pedagogies, enables educators and institutions to deliver education in the new blended learning environment effectively. Dhawan (2020) defines e-learning as a tool that can make teaching and learning more student-centered, innovative, and flexible. Student-centred is aligned and informed by student needs, and innovative in that it allows for different creative approaches to delivering and consuming education content, and lastly, allows flexibility as learners can learn from anywhere. While conventional education programs require the physical presence of both learners and teachers in one place, e-learning has modified the structure of education by enabling the application of various teaching strategies, in particular, synchronous and asynchronous learning using multiple approaches and devices such as mobile phones, and laptops, amongst others. According to AlNajdi 2014, p. 215) Some intelligent agents typically used in e-learning include collaborative teaching agents and web interface agents. Nichols (2003) argues that there are various instructional approaches that educators generally utilize under the e-learning channel, such as constructivism or active learning, collaborative learning, problem-based learning, resource-based learning, narrative-based learning, and situated learning. Therefore, while higher education institutions implement the same process of a hybrid model of education, pedagogical strategies employed through e-learning, however, tend to be guided by learner needs, types of courses, or types of education (e.g., Brennan & Osborne, 2008), culture, course nature, and learner characteristics. We add that other broader societal factors, such as political economy, may alter the implementation of e-learning.

Some of the arguments for e-learning that scholars have documented before include accessibility, affordability, and flexibility, amongst others (Dhawan, 2020); however, while these

factors have been positive in some contexts, in settings such as countries in the developing world aspects of the digital divide have negatively impacted accessibility, and affordability, rendering e-learning a preserve for the rich. These arguments lead us to ask the following questions:

RQ1a: What innovative e-learning platforms and methods are appropriate to meet course demands and learner needs in both the Global North and South?

RQ1b: Apart from COVID-19, what other societal factors, if at all, shape the utilization of e-learning platforms in the two settings?

RQ2: What are the educators' perceptions of their roles in the 'new' classroom?

2. Methods

A qualitative approach was adopted for this study to elicit detailed descriptions and lived experiences of educators in both settings. Qualitative research methodology is appropriate for this study as it aims less at measuring and more at understanding, often from the "inside," namely the subjects under investigation (Creswell, 2014, p. 186). The research employed the collective case study method to address the research inquiry. The choice of collective cases is supported by Babbie (2010), who argues that a collective case study provides insight into an issue. Babbie (2010, p. 309) posits that while there is no consensus on what constitutes a "case," the term is generally used to refer to an event, a program, an activity, a process, or one or more individuals, usually bounded by parameters such as time and activity. In this study, the two universities are bound by the same activity – that of teaching. Purposive sampling was employed to select educators from the same discipline in both institutions.

Further, the sampling strategy included purposively selecting educators who teach theoretical and practical courses in line with the needs of the study. This resulted in 19 participants: 10 from a university in Zimbabwe and nine from an institution in the USA. Face-to-face and E-mail interviews were conducted between September 2022 and February 2023. All the interviews in the USA were conducted face-to-face while reaching some educators in Zimbabwe, which required using a structured interview guide sent via e-mail.

2.1. Data Analysis

Thematic analysis informed by Braun & Clarke (2006) was applied to analyze the data. Thematic analysis is a qualitative method used to systematically organize and analyze complex data sets (Dawadi, 2020, p.62). While Braun & Clarke propose six steps for thematic analysis, that is, familiarisation with the data, developing codes, searching for themes, reviewing the themes, defining the final themes, and lastly, producing the report, we applied five steps in our data analysis, namely: familiarization with the data; identifying descriptive codes; searching for themes; reviewing the themes and lastly producing the report. Braun & Clarke (2019, p.583) further remind us that thematic analysis is a "theoretically flexible method" rather than a "theoretically informed and constrained

methodology"; as such, it can be adapted to suit different research needs – hence our merging of steps four and five. In addition, the flexibility of thematic analysis enabled us to employ both deductive and inductive analysis – adding depth to our analysis, as Dawadi (2020) argued. The former was used to analyze the data about the themes that emerged in the reviewed literature and our research questions, while the latter aimed to enable new themes to emerge from the data.

The initial step in the analysis involved transcribing the face-to-face interviews, reading all interview transcripts to get a sense of the data, and picking out initial points of interest, as Chamberlain proposed (2015). In the second step, both researchers read the transcripts and manually assigned descriptive codes to the chunks of text in the transcripts. These were then exchanged between the researchers to identify discrepancies. We then searched for the themes in the data and exchanged our code books for comparison to identify any emerging themes and correlate the findings.

The fifth step involved reviewing themes finalizing them, and producing the report. The iterative nature of the thematic analysis is such that it enables constant reading and systematic re-reading of the transcripts so that the final product is of good quality (Cavendish, 2011). Further, taking a cue from Gray (2018), the researchers sought clarifications with the participants during the interview process and exchanged notes and reflections through peer debriefing storm sessions during data analysis. This enhanced the validity and quality of the findings.

3. Results and Discussion

The e-learning theory by Mayer et al. (2015) is utilized in this study. According to the e-learning theory, online learning has different dynamics across higher education institutions; for example, in some settings, e-learning is viewed as distance learning, and in other settings, as remote learning (Moore et al., 2011). Other scholars, such as Singh and Thurman (2019), define the concept as education delivered in an environment through the use of the Internet for teaching the content to enhance synchronous and asynchronous learning activities as well as learning that is not dependent on students' physical or virtual location. According to David (2015), E-learning theory is built on cognitive science principles that demonstrate how the use and design of educational technology can enhance effective learning. Thus, this theory belongs to the theory of connectivism since its thrust is to utilize technologies innovatively to create new opportunities for effective teaching and learning. Therefore, the relevance of this theory in this study is that it identifies the use of learning technologies and innovative educational approaches utilized by educators and assesses whether these enable effective teaching and learning in the two contexts of this study.

3.1 Pedagogic innovations implemented

The ten participants interviewed in Zimbabwe identified the WhatsApp platform as a significant teaching and learning tool, and they revealed that they implemented various teaching and learning innovations using this platform. The findings further indicate that the WhatsApp platform was utilized with Google Classroom and occasionally Zoom. The educators noted that Google Classroom was primarily used to share learning content with students accessing this platform. Zoom, used sparingly, was mainly used for consultations with students they would otherwise not be able to meet face to face.

Participant A summed up succinctly what the majority of the respondents explained their use of the WhatsApp platform:

“WhatsApp Messenger was the leading platform where students were easily accessible. Because of this, I started teaching through the use of voice notes. I recorded myself teaching, and I would send the recordings. The recordings were in 30-minute segments. My students will listen to these recordings and then type their questions on the WhatsApp class group, and I will record responses to their questions and send them. I also sent lecture slides, notes in PDF documents, and video illustrations of practical sessions for students to download” (Interview, 2023).

Similarly, Participant E noted:

“Our learning was mostly through WhatsApp. Even though the platform is not conducive to learning, I used it because most students were using it, and it was cheaper. I uploaded an audio explaining lecture notes and gave students days to process the information before discussing it on WhatsApp” (Interview, 2023).

On Google Classroom, educators mainly upload course content such as course outlines, lecture slides, lecture notes, and videos. “I also researched free instructional videos from YouTube, for example, on how to operate a camcorder, a DSLR camera, and how to start a new editing project on Adobe Premier, and would send these links to students”, added Participant A.

Participant C noted that the WhatsApp platform enabled him to be creative and implement the flipped classroom strategy. He said this strategy entails providing students with reading materials, instructional videos, links to videos, and relevant manuals beforehand. This enabled students to read ahead and get an opportunity to read ahead and contribute during the class discussions (lecture). For some educators, the collaborative approach to education proved critical as educators were forced to be innovative and creative in delivering content, especially for some practical courses. Participant D said one of the things that COVID-19 changed was impacting the efficiency of collaborative work, especially in terms of students who had limited means of assessing the Internet.

Other innovative methods appropriated by the educators given the needs of contemporary students, especially in the era of post-Covid-19 include Conversational content delivery (participants E, F & H) – where students lead discussions and the lecture content sequencing then tailor-made around the issues the students are interested in; peer learning (participants B, C, I & J) through class presentations which are shared on the WhatsApp platform; Lecturer-modes of delivery (participant D); Experience-based learning and learning by reflection (participant A & G) which allows students to bring class their lived experiences in the classrooms and how these experiences help them to understand lecture content.

The educators noted that practical courses were the most challenging to teach during COVID-19, with limited personal interaction with the students. Participant D revealed that for practical group assignments, they had to adjust and test the students as individuals:

“The first step in the assessment was to assign individual production tasks. This enabled all the students to develop skills in independent production work. It was more effective to start with individual practical work before assigning it to groups. Later, I would group students and ask them to use materials from personal tasks to produce a longer collaborative project. This gave them more time to assess each other, 'dismantle' it, and reassemble it, enabling more reflection on the distinct

aspects of production elements. This has since become my default method of assessment in blended learning as it makes my formative assessment more comprehensive” (Interview, 2023).

For assessments, participants A, B, D, E, I & H revealed they used Google Classroom mainly, where students were given quizzes. The quiz tests were programmed to give students their scores once they submitted the test. Thus, it was an effective way of assessing the students. "Later, when we met physically, I mainly tasked the students to apply theory learned online in the small practical production projects I tasked them to do (participant A, 2023). Participant C said:

“I will use Zoom (whiteboard) in the future, which is effective as I can record a video and share it with students. Zoom has features that enable one to make demonstrations. These are fundamental as students are more likely to recall such information than audio recorded on WhatsApp”.

Findings from the Global North reveal that Zoom meetings were the primary online platform for teaching and learning during the COVID era. All nine participants showed they were forced to be creative and innovative in using the platform for effective learning. Participant 3 commented:

“It[teaching] was hard, significantly, to demonstrate through Zoom. However, it was a good experience as we learned new ways of doing things, and students figured out new ways of doing their work and assignments. So, it was a good experience” (Interview, 2022).

Participant Four said that while she had been using online teaching before Covid, for some of the postgraduate classes, she learned from Covid that "it forced her to find creative ways to teach on Zoom." At the same time, Participant 7 noted that while Zoom was helpful in teaching and learning, classes disappeared to Zoom – perhaps not even on Zoom. Participant Nine revealed that while the institution had already introduced blended learning, where half of the courses were taught physically with the other half on Zoom, COVID-19 suddenly forced higher education institutions to conduct remote teaching, and this was a first for some faculty members. The faculty member noted that the learning during the initial COVID-19 lockdown was:

“Clumsy in the way that instruction was presented, but this was fine for everyone. This was better than closing the university. We learned from Covid that, as higher education institutions, we can deliver instruction differently than before; for example, faculty have improved their online teaching skills” (Interview, 2023).

Creative instructional methods of teaching revealed include experiential learning (Participant 3), where with minimal contact with students throughout the semesters, students need to be taught what they need to know, then go on to try and 'figure it out,' and this means being as practical as possible. In addition, a student-centered approach to learning was widely seen as very important, especially post-covid by all the educators: peer-to-peer learning, producing video clips related to course content, using graphics, and creating fun learning environments (Participant 4). The educators also learned how to teach critical thinking innovatively, using online platforms that allowed students to synthesize several readings online and the lecturer to view the responses in real time (Participant 5). Participant 2 said one major lesson for her was that the mental health of students deteriorated during the pandemic – a situation she said challenges faculty, even today, to refocus their approach to teaching and assessment feedback. For example, she said issues like strict deadlines – are something that could be relooked. "Covid brought in a lot of stress to everyone, and we must be lenient and understand students" (Participant 2, 2022). In other words, the COVID-19 pandemic

requires that we place the students at the center of the learning strategy now more than ever to ensure educators capture students' attention in class. Another participant felt that educators must re-learn what and how to do better. He summed up his observation:

“We have seen that students need more application, and there are no longer substantive discussions in class because of the two years of learning on Zoom. With Zoom, students regurgitate content to get work and assignments done without engaging with data – that group of students can't have in-depth discussions in class. Students are not opening up in classes, which is the effect of coved that is manifesting now” (Participant 5, 2022).

Participant 3 added that one of the critical lessons from Coved, especially the initial lockdown, was that students needed and wanted interaction, which is “what our classrooms should be.” In other words, coved brought new aspects of improving education. For example, better teaching methods and better teaching materials “so there are positive off spins” (2022).

For assessments, there was an emphasis on going beyond doing assignments for grading purposes and thinking BIG. For example, some classes enable students to set up their profiles on the web addresses provided by the university. All the work they do during the semester feeds into their profiles, and at the end of the semester, they have a portfolio they can use to sell themselves. Participant 3 noted: “Students must think portfolio as they do their assignments – so their assignments should not just be for class grading – but they should think beyond those assignments and create something they can use in the future” (2022). He said students do their creative work and later can have sessions where they critique their work, which teaches them much-needed critical skills.

Participant 9 added that while traditional assessments, which required laboratories and face-to-face interaction, were disrupted, the university moved quickly to online platforms. The Participant added that coved helped increase staff's creativity in seeking new and alternative ways of assessing student learning. He highlighted that:

People were kind enough to share their innovative teaching methods—there were many open sources – and humanity came to help. Regarding Coved, the element of compassion is still with us, and we need to be mindful that this is a unique generation because they have lived through it (Participant 9, 2023).

3.2 *Other contextual factors driving the choice for e-learning and teaching innovations*

With regards to the choice of teaching and platforms utilized, educators in the Global South cited the accessibility of specific social media platforms such as WhatsApp by the majority of students, as well as the fact that it is relatively cheaper when compared to other online learning platforms such as Google meet and Zoom where students needed more data to be in such real-time classrooms.

Even though the platform is not conducive to learning, I used it because most students were using it, and it was cheaper. I uploaded an audio explaining lecture notes and gave students days to process the information before discussing it on WhatsApp. While this worked, it had limitations, as some students were not participating. Moreover, the audio is dull and lacks interactivity (Participant A, 2023).

In addition, lack of infrastructure, particularly learning equipment such as laptops and smartphones, owing to economic hardships in the country, were cited as factors impeding electronic learning in Zimbabwe (Participants A, B, C, E, G, I & J). Further, the impact of poor economy, lack

of solid collaborations with industry, and lack of a culture of multi-disciplinary approach (Participants D, F & H). Further, the findings revealed that for students from rural areas, poor network infrastructure limits their access to the course and learning material, even on the accessible WhatsApp platform.

Findings from the Global North reveal the following factors: the changing skills needed by industry (all the participants) to meet the 21st-century students' needs, such as client-relationship management, how to work in teams, reflect on what and why they do it (Participants 1, 5 & 6). Placing students at the center of the learning strategy is more critical now than ever to ensure educators capture them in class and we can better produce better graduates. In addition, the fluid teaching philosophy enables the creation of an environment that allows and supports student and faculty innovations at the university and faculty levels (participants 3, 7, 8 & 9).

3.3 Educators' perceptions of their roles in the 'new' classroom

For most participants in the Global South, their roles largely vacillated between mentorship and coaching, more than traditional teaching. The teaching roles took on the guide and mentor approach as students were given lecture content, which they interacted with on their own time, and later posted questions to the lecturer on what they [students] felt needed to be addressed. This student-led learning approach forced educators to coach rather than traditionally deliver.

Participant 4 revealed that the current teaching environment post-coved had forced educators to assume the role of 'psychologists' and care about the well-being of students. She said the mental health of students deteriorated during the pandemic – a situation which forced and still forces faculty, even up today, to refocus their approach to teaching and assessment feedback. For example, she said issues like hard deadlines – are something that could be re-looked. “Coved brought in a lot of stress to everyone, and we must be lenient and understand students” (2022). In other words, the message from the participant is that Coved requires that education places the students at the center of the learning strategy now more than ever to ensure “we capture them in class and we can better produce graduates relevant for industries. Participant 5 added that students are not opening up in classes, and the effects of coved are manifesting now. He said students must be taught to accept critique and manage their conflict and emotions better. They have not been used to critique – so "some of them are not ok with critique, you can see it" (2022). Thus, the roles of educators have now extended from broadly teaching and mentoring to identifying and managing students' emotional well-being.

Another participant revealed that the post-coved era has also necessitated a lot of re-learning by the students and educators. We have seen that students need more applications, and there are no longer substantive discussions in class because of the two years of learning on Zoom. With Zoom, students just regurgitated to get work and assignments done, without really engaging with data – so we see that now, that group of students can't have in-depth discussions in class “(Participant 6, 2022). The participant further noted that educators must be more compassionate and mindful that the current crop of university students is a unique group living through the COVID-19 pandemic. Participant 7 buttressed that the mental health of students is not something that lecturers should not take lightly. He said:

“I took a lot of initiative [during COVID-19] to ask people how they were doing. If they didn't answer me, I wouldn't know what had happened to them. A lot of classes disappeared to Zoom

– perhaps not even on Zoom. Students' mental health has become something we need not take lightly. Thus, we have to use the terminology of grace, leniency, and making things manageable. I believe in the value of in-person management, but we need to be flexible (2022)".

Participant 8 said COVID-19 threw faculty out of their comfort zone. "Before fall 2020, we had to figure out the blended formula. The goal was to have more than half of classes for our undergraduates delivered in person and the other half on Zoom". We were suddenly forced to do remote teaching and empathize with staff who had not done this before. We learned from Covid that, as higher education institutions, we can deliver instruction differently than before; for example, faculty have improved their online teaching skills. The other key lesson we learned was that "we were able to prove ourselves that we can pivot so quickly to get education moving despite COVID-19. We were able to do it, and that built our confidence. Now we understand that we don't have to do it in person.

3.4 Discussion

The findings in both contexts reveal the convergences and divergences regarding approaches to the hybrid or blended teaching model adopted by institutions globally, particularly the choice of e-learning and instructional and assessment strategies. The major e-learning platforms the educators in the South and North identified are the WhatsApp platform and Zoom Meetings. The social media platform proved popular as a teaching platform in the Global South and Zimbabwe precisely due to the cited reasons of accessibility, and relatively cheaper as less data is needed for students to access course content, compared to real-time classrooms on Zoom. Despite the WhatsApp platform being the 'better' choice, some educators said many students need access to WhatsApp and thus rely on their colleagues to access course content. This finding conforms to other findings, for example, by Tarisayi & Munyaradzi (2021). Therefore, we decipher from this finding that the choice of e-learning platforms in any educational setting is primarily impacted by contextual factors (such as national and institutional) rather than the teaching and learning capabilities of the academic platforms. In Zimbabwe, the pace of technological transition, in terms of fully resourcing institutions and classrooms precisely so that it's easier to teach and learn electronically, is slower.

Furthermore, the socio-economic environment makes it difficult for learners to equip themselves with learning gadgets such as laptops, smartphones, and access to Wi-Fi connection. For the Global North, while the issues of accessibility, resources, and broader economy were not of much critical concern from educators' perspectives, mainly because of the technological advancement of higher education institutions and availability of resources, other socio-cultural issues were attributed to the challenges of e-learning. For example, three participants noted that some students, due to their circumstances, could not afford to attend Zoom classes. At the same time, some found it challenging to learn in 'faceless' classrooms and thus suffered emotional stress. This argument concurs with findings by Journell (2007), who argues that the digital divide transcends access issues, including disparities such as socio-economic status, group belonging, and culture. From this premise, despite technological advancements, industrialized countries also suffer from other digital inequities that affect e-learning. These findings conform to the e-learning theory by Mayer et al. (2015), which states that there are different dynamics of e-learning in various contexts.

Further, the findings show that despite the technological advancement of institutions in the Global North, there needed to be more variance with the Global South regarding the instructional

strategies utilized. Collaborative learning, experiential learning, and student-centered approaches are the most used via e-learning in both settings. One would therefore argue that for education outcomes to be realized, perhaps it is more than the choice of the e-learning platform; instead, how educators innovate the delivery of content for the benefit of the student. Therefore, e-learning has provided educators with opportunities to creatively sequence and deliver content that promotes and nurtures collaborative teaching and learning and creates conversational student-centered learning, proving that technology strategically supports effective learning, as the e-learning theory argues.

Further, with regards to the contextual factors driving the choice of educational innovations in teaching cited by educators in the Global North is the need to address the changing skills required by industry and also the teaching philosophy that adapts to the changing landscape and assists innovations at both university and faculty levels – key issues which were not identified in the Global South setting, which leads us to argue that there is more of the teacher-centered approach in setting the educational objectives and that this approach may be informed by the obtaining philosophy of education, which is rigid. Research (for example, Sharapova & Avdeeva, 2019; Eden et al., 2019; Alton, 2023) has shown how digital transformation impacts many facets of contemporary society, requiring new skills from university graduates. The necessary skills include digital literacy, collaboration, problem-solving, and critical thinking skills, amongst others. From this premise, the evolving skill set needed for the ever-changing global marketplace, which is highly competitive, has been cited as one of the critical concerns of universities. Universities must meet the constant demands of new skills required by the learners, industry, and society. Without this focus, using technology to improve educational outcomes will not come to fruition.

Further, the findings show that for educational innovations to benefit teaching and learning, a supportive environment and policies must support creative ideas and motivate educators and learners to play their roles in the educational process. Thus, a philosophy of education that is adaptable to the needs of society is critical. This finding concurs with views by other scholars such as Shaughnessy (2018) and van Tonder et al. (2020) that for higher education institutions to transform digitally requires increasing the use of technologies [including teaching and learning innovations], the ability to create values, and supporting structural changes. These structural changes encompass re-aligning educational philosophy to enable the requisite processes and interventions to be put in place for successful academic outcomes. Further, Mirgorodskaya et al. (2023) remind us that higher education institutions need to identify the change required and the most dynamic, practical, and relevant processes to achieve successful education outcomes.

4. Conclusion

As the world evolves into a digital sphere, the digital revolution impacts every aspect of our lives, including how we teach and learn; e-learning is emerging as the paradigm of modern education and is indeed the future of education. However, E-learning has laid bare the different dynamics of the phenomenon, especially regarding the adoption, usability, accessibility, and applicability in various contexts. This study has shown that despite the dominant paradigm of the digital divide [especially the accessibility debate], other vital contextual factors, such as socio-cultural aspects and beliefs, need

to be brought into the fold in the discussions on the utilization [and lack] of e-learning platforms for teaching and learning. Further, this study has shown that while institutions and individual lecturers must adopt various e-learning platforms for educational work, innovation and creativity in content delivery prove critical.

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