Prospects of Implementing the Flipped Classroom Blended Learning Model among Lecturers in African Universities

Patricia Muhuro*[a], Simon Murote Kang'ethe[b]

* Corresponding author
Email: pmuhuro@ufh.ac.za

a. Teaching and Learning Centre/Faculty of Education, University of Fort Hare, South Africa.
b. Walter Sisulu University Department of Social Science Faculty of Law Humanities and Social Sciences, South Africa.

How to cite
Muhuro, P., & Kang'ethe, S. M. (2025). Prospects of Implementing the Flipped Classroom Blended Learning Model among Lecturers in African Universities. *Research in Social Sciences and Technology*, 10(1), 144-158.
https://doi.org/10.46303/ressat.2025.

ABSTRACT

The flipped classroom is an emergent digital pedagogy credited with virtuous and student-centric characteristics of increased learning. The purpose of this study was to discuss the implementation of the Flipped Classroom Blended Learning Model among lecturers in African Universities. The study employed a qualitative literature review, after reviewing 15 articles drawn from EBSCO host, Web of Science, Scopus, and Google Scholar. Findings reflected that: The flipped classroom model is virtuously unique, student-centric, facilitative, and interactive, employs active learning, and faces daunting implementation challenges in Afrocentric settings. The paper calls for more training among lecturers in Afrocentric settings to raise lecturers' state of professional development.

KEYWORDS

Flipped classroom; blended approach; lecturers; professional development; emergent digital pedagogies.

INTRODUCTION

Conceptually, the flipped classrooms learning model, which is an offspring and appendage of blended learning, is an emergent digital pedagogy, that enhances student learning experience and motivation and can be credited with fostering 21st-century higher-order learning skills (Persky & Robinson, 2017). Conceptually also, emergent pedagogies are multifaced alternative approaches in favour of dynamic and creative learning approaches. Today, the flipped classroom model has become topical and contemporaneous in current higher education since it is employed at different academic levels in Afrocentric settings (Ahmed, 2016). Characteristically, flipped blended classroom model favours open dialogue, co-learning, increased engagement, and scaffolding (Koh et al., 2022; Staker & Horn 2012). Further, the flipped blended classroom model applies the principles and ethos of problem-solving, collaboration, flexibility, active learning, experiential, and discovery approaches. Such emergent digital pedagogies are believed to increase motivation and overall learning experiences (Thai et al., 2017). Opportunely, the flipped classroom model is believed to satisfy several ideals of the Fourth Industrial Revolution (4IR), as well as a few principles and philosophies of the Fifth Industrial Revolution (5IR). This implies that the model is geared towards increasing not only the learning efficiency but also the standard and quality of teaching and learning outcomes. This ensures that individuals embrace competencies that provide novel solutions to existing societal problems (Dusengamana et al., 2023; Moloi & Salawu, 2022). The ideals of both the 4th and the 5th industrial revolutions are achieved by combining the strengths of human capacity with those of technological tools.

Perhaps locating the flipped classroom model within the blended learning taxonomy is key. While blended learning is a teaching and learning modality that combines the best qualities of face-to-face online modalities, approaches, and media to maximize teaching and engagement (Mitsiou, 2019), the flipped classrooms model is a novel and innovative approach to teaching and learning within the blended learning taxonomy and is credited for increasing student motivation and engagement (Fushs, 2021; Gqokonqana et al., 2022; Hamakali & Josua, 2023; Ramulumo & Mohapi, 2023). A wide array of terms is used to describe the same practice of the flipped classroom model. These include Just–In–Time Teaching (JiTT) (Novak, 2011), 'flipped classroom' (Bergmann & Sams, 2012), 'inverted learning' and "inverted classrooms" (Lage et al., 2000). However, this paper will use the term, flipped classroom coined by Bergmann and Sam (2012). Historically, Large, Platt, and Tregia were the pioneers of the practice, but Bergam and Sam popularised the practice. Bergmann and Sam were high school chemistry lecturers in Colorado state of the United States of America who sent video-recorded learning materials to their students before coming to address several student challenges that inter alia include poor student engagement, limited content coverage, and high incidences of students falling behind due to missing classes (Bishop & Verleger, 2013). These pioneers of the flipped classroom learning model then used class time to implement active learning and collaborative learning strategies to enable the application, synthesis, and evaluation of the aspects learned. The post-

class session was dedicated to projects and other practice-based activities in authentic settings. As described above, the flipped classroom model employs three phases (three tiers) aimed at deeply engaging students in learning the content and developing different cognitive demands. In the pre-class tier, teachers provide students with audio or recorded materials or podcasts, video-recorded notes, or texts to familiarise themselves with the learning concepts before attending class sessions. This not only allows students to determine when and how to learn but also provides a space to acquire basic conceptual knowledge, as well as high-order thinking skills concerning the topic at hand. Then, during the in-class phase/tier, the lecturer clarifies sections students may not have understood through a short micro-teaching session aimed at covering aspects not included in the pre-reading. The lecturer also employs active teaching and learning strategies such as projects, case studies, case scenarios, and problem-solving tasks (Moffet, 2015). This is aimed at facilitating increased interaction, engagement, and deepening of understanding of the course content (Love et al., 2015). For example, students preferring to use an auditory learning style may choose to listen to a recorded lecture, while those preferring a visual learning style can watch instructional videos. Moreover, the students preferring a verbal learning style can read texts. It needs to be noted that the lecturer must be flexible in terms of meeting deadlines by students. Moreover, learning activities in Phases Two and Three require to be adjusted to suit the students' preferences. If students prefer debating instead of engaging in a discussion when studying in face-to-face sessions, then learning should adopt the debating method. Further, in case the students prefer to make a short film rather than writing a paper as a final project, then the teacher needs to facilitate that but with a note. However, the teacher needs to ensure that the flexibility chosen must be relevant to the content and learning objectives. The second pillar, which is learning culture, (L), refers to a student-centered learning approach that develops student autonomy toward independence in learning. If in a traditional classroom the lecturer is the main source of information, with students acting like a foam that absorbs information or an 'audience' who listens to the teacher's lectures or presentations, then a flipped classroom scenario allows students to act as 'creators' who construct knowledge, or actors involved in the performance, and at the same time being evaluators of each other's learning.

The third pillar (3), intentional learning content creation, implies that the content is well integrated with the objectives to develop various thinking skills. This means that students do not only competently master the knowledge/skills learned, but also develop thinking skills. For this integration to be effective, lecturers must ensure that the available learning time is adequately utilized to achieve the learning objectives that allow apt student learning.

The 4th (P) emphasizes that lecturers who use flipped classrooms must do it astutely. Lecturer professionalism means that the teacher must have sound content mastery, in addition to pedagogical knowledge and technological prowess. The concerned lecturer must be competently committed to continuously monitor, guide, and provide timely feedback to students.   This is opposed to a traditional learning teacher who rarely commits to

communicating with students after a face-to-face class is over. In addition, lecturers who engage in flipped classrooms need to be astutely reflective practitioners, be open to constructive criticism as well, and adopt strategies that promise astute teaching and learning for their students.

The flipped classrooms learning model foregrounds student-centric aspects such as learner autonomy, self-directed learning, active learning, and social learning. Such techniques lead to a democratic learning space and develop desirable 21st-century competencies (Thai et al., 2017). This is because the post-class tier is devoted to consolidation. Students are assessed through authentic experiences that foster creativity, synthesis, and evaluation of other higher-order skills linked to the professional space (Betihavas et al., 2016). Utilization of the flipped classrooms model in various disciplines promotes students' engagement, metacognition, positive attitude, improved performance and achievement, and other outcomes (Al-Samarraie et al., 2020).

To better understand the place and niche of the flipped classroom model, these researchers consider it noble to locate it within the blended learning taxonomy. In the taxonomy of blended learning presented in Fig 1, the flipped classroom model is an offspring and appendage of the rotational model, one of the four variants of blended learning, comprising self-blend, flex, rotational, and enriched virtual (Staker & Horn, 2012). The rotational model broadly involves alternating online and in-class activities employing active learning techniques.

Rotational blended learning implies that students' learning process rotates between online and face-to-face teaching at the discretion of the instructor (Staker & Horn 2012:5-6). Operationally, Rotational blended learning allows students to rotate on a fixed schedule between face-to-face teacher-guided practice during the standard school day and online delivery of content and instruction of the same subject from a remote location (often home) after school. Moreover, students usually attend classes where they can accrue benefits from group projects, assignments, and tutorials.

Characteristically, the flipped classroom model is student-centric in that it is enacted through democratic learning spaces where students contribute to shaping the learning process (Nouri, 2016). In other words, the flipped classroom model employs active learning strategies using the principles of self-directedness. Moreover, student-centred learning embraces the following humanistic-oriented virtues: independence, autonomy, power differential with an instructor, focus on the learning process rather than the product, creativity and novelty, and innovation, and allows students to assess their learning, metacognition, and creativity (Betihavas et al., 2016).

Figure1.

Four Variants of Blended Learning
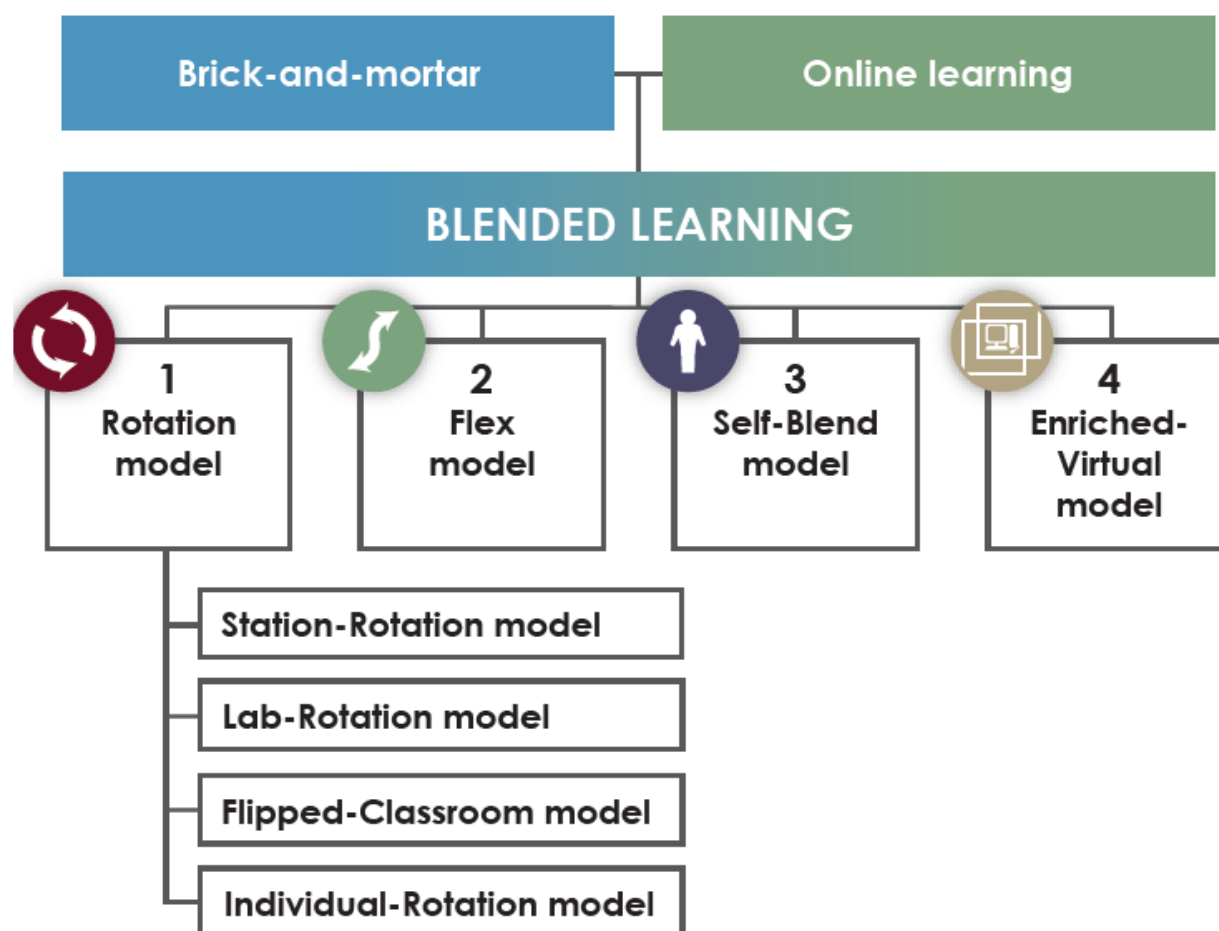
Theoretically, the flipped classroom model is rooted in humanistic and social learning perspectives, which both encourage student-centred learning (Koh et al., 2019). The humanist perspective stresses the holistic development of the students by granting choice, independence, autonomy, and democratic participation (Freire, 1968), while the social learning perspective foregrounds authentic experience in a social setting as the basis for learning, with peers and other knowledgeable others providing the necessary support for an individual to actively construct knowledge.

Evidence abounds that the implementation of the flipped classroom model in African higher education is at the nascent stages of implementation and application, and is confined to a few countries such as Uganda, Kenya, Rwanda, South Africa, and Botswana (Naidoo, 2021). Even with these cases, there is an apparent lacuna in that the application is confined to students learning, with little lecturer professional development (Lekgothoane, 2021). This, therefore, justifies the need to close the gaps by exploring prospects of implementing the flipped classroom model in the professional development of university lecturers in African higher education settings.

Problem Statement

Axiomatically, the use and implementation of the flipped classroom model as an emergent digital pedagogy and a component of blended learning has become topical and contemporaneous in the current higher education dispensation (Fuschs, 2021). This is because it is a transformative teaching and learning process that has extensively been applied in many countries and many subjects. Its virtues inter alia include leveraging the mastery of the use of technologies in the classroom when compared with the traditional teaching approaches (Khayat et al., 2021). It is further characterized by an environment of providing students with the learning materials before the class begins and then using the contact class sessions to discuss points of clarification through projects, discussions, and debates (Bergman & Sams, 2012). Such a learning environment increases the mastery and learning motivation of students because they are actively involved in the learning processes. While there is much research on the use and implementation of the flipped blended classroom learning model with students in Afrocentric settings; these researchers who are themselves lecturers see little use of this pedagogy among lecturers for their professional development. The study wishes to attempt to close the gap by exploring the prospects of its implementation and application thereof in African higher Education settings.

THEORETICAL FRAMEWORK

Flipped classroom model proponents contend that it is informed by multiple educational theories which include cognitivism, social learning theory, social constructivism, and humanism (Bergman & Sam, 2012). This paper mainly adopts social constructivism by Vygotsky (1978) and the humanist theory by Paulo Freire (1968) when presenting findings and analysing the data. The section below provides a brief description of the constructs of social constructivism and humanism relevant to the paper.

Social constructivism

Social learning perspectives foreground authentic experience in a social setting as the basis for learning, with peers and other knowledgeable others providing the necessary support for an individual to actively construct knowledge. The perspective provides for active engagement where the learners must be given the autonomy to construct their understanding of what they are learning through engagement in meaningful authentic learning experiences, where the language and culture of the community are considered important during the learning process (Vygotsky, 1978).

Humanism

The humanist perspective as propounded by Carl Rogers (2003) and Paulo Freire (1968), emphasizes the need for individuals to exercise agency in their learning through a supportive learning environment. Independence is provided when students must write their notes based on the learning materials or answer quizzes and related exercises linked to the out-of-class activity (Utami et al., 2021). For instance, autonomy occurs when students have a

choice on when and how to access the learning materials. However, students' differences can be acknowledged through personalizing learning based on individual needs. This means that students are at liberty to decide when and how to access the learning materials (Moffet, 2015). In this study, humanism is relevant because there are ample opportunities for students to engage with pre-class readings, as well as select project topics that align with students' areas of interest. The humanist perspective can be applied in teaching using the flipped classroom model when lecturers allow students to co-create knowledge as well as provide some flexibility in the learning process. In this study, the researchers explore how the above constructs can be employed during the professional development of African higher education lecturers on the adoption of technology for teaching and learning purposes.

Study Methods

The study employed a literature review methodology, drawing on secondary published data. Using key databases such as Web of Science, Research Gate, Scopus, Eric, and Google Scholar, the researchers used the following keywords to tap on the relevant literature: flipped classroom model, flipped classroom learning inverted classroom, lecturer professional development on blended learning, professional development on flipped classrooms and principles for implementing the flipped classroom. About 50 articles were reviewed, all touching on the title of the article, with about 15 proving to contain relevant valid, and reliable data of interest to the researchers and important to the topic under investigation. Using coding, the findings were thematically analyzed and synthesized. Ideally, thematic analysis using coding assisted in identifying, analyzing, and noting the recurrent patterns of data. This helped to understand and interpret the meanings and implications of the data by focusing on themes that emerged from the data collected. In short, thematic analysis ensured familiarisation with the data, generation of codes, searching for themes, reviewing and naming the themes, and writing a report

FINDINGS AND DISCUSSIONS

The flipped classroom model is virtuously unique.

Axiomatically, the use, adoption, implementation, and application of the flipped classroom model that exists in three phases has been proven to be a productive learning process to engage students, providing them with more time and opportunity to engage with the learning materials as well as with the instructors (Cents-Boonstra et al., 2020). Using instructional videos, teachers introduce students to a set of new knowledge and explain the concepts with examples before the beginning of the class meetings. Most of the in-class time is then spent on group learning activities and solving real-life societal problems. This therefore implies that the use of audio or video materials such as instructional videos, YouTube, screencasts, Khan Academy, and podcasts, for out-of-class learning and regular face-to-face class meetings, are regarded as two necessary elements of the flipped classroom model. The niche of the flipped classroom model, therefore, falls under the rotational appendage of the blended taxonomy and is considered virtuously unique in that it manifests a lot of virtuous unique characteristics such as being

multistage, with each stage aiming to achieve a level of cognitive demand (Staker & Horn, 2012). Each of these different stages represented by a flip encourages a different kind of learning. Studies show that the outcomes of learning manifested by the flipped model are higher compared to other types of blended learning models because of its uniqueness. Unequivocally, the flipped classroom model is more interactive than other blended learning-oriented pedagogies (Nouri, 2016).

The flipped classroom model is Student-centric.

Historically, student-centered learning is attributed to the work of John Dewey, Carl Rogers, and Knowles, and focuses on increasing the generic skills and transversal competencies, such as critical thinking, independent learning, and problem-solving (Rogers, 2003; Keengwe, 2022). Student-centric learning is characterized by students taking an active role in the gathering, processing, and application of different aspects of their learning, instead of passively assimilating or absorbing what the lecturer dishes out (Keiler, 2018). In the same breath, the flipped classroom model is student-centric because students are provided with more opportunity and space to engage with the content individually before coming to class, and then later collaborate with peers to gain deeper mastery of the content. The active learning activities that students engage in, inter alia, include, watching the videos at their own pace, and their preferred location, with an option to rewind, pause, or move forward, writing summaries of the content of the video, and in some cases, completing a quiz (Moffet, 2015). Such activities not only provide students with ownership of their learning process but also enable them to learn at their own pace. Further, the in-class phase of the flipped classroom model tends to be dominated by problem problem-solving, discussion and debate, projects, and practical activities. Such collaborative learning activities foster deep learning as students learn from other aspects that they could not have had an opportunity to learn on their own and thus align to the social learning construct of the zone of proximal development propounded by Vygotsky (1978). Opportunely, allowing students to contribute or participate actively in the learning processes also enables the development of several higher-order cognitive skills, such as problem-solving, synthesis, evaluation, and critical and reflexive thinking (Utami et al. 2021). Moreover, in an Afrocentric setting, dialogue in the form of storytelling and cultural activities through performances can be mimicked and used in the classroom setting in the form of role-play, debate, and case-based learning (Van Wyk, 2014)). All these characteristics are important and by design or default position the ethos of Afrocentrism (Kang'ethe, 2023). However, the use of the flipped classroom model requires appropriate structuring and delivery of learning through scaffolding on the part of the lecturer who needs to take a facilitative role (Rajaram, 2019). In some cases, it is the belief in the value of facilitation that confounds lecturers' prowess to use a facilitative approach.

The flipped classroom is facilitative.

Conceptually, the facilitative learning approach entails giving the students more control of the learning processes in the classroom (Iversen et al., 2015). These processes are also coupled with

opportunities for mutuality and reciprocity through collaborative, synergist engagement (Iversen et al., 2015). Students taking control of the learning processes can entail allowing students to select the group members for collaborative tasks, students selecting the mode of engaging in content or representing content, and students taking part as assessors in some of the in-class assessment tasks (Staker & Horn, 2012). Facilitative learning has the benefit of stimulating a reading culture. Using facilitative learning requires that the lecturer takes on a guiding role in the learning process (Battista et al., 2023). The aim is to inculcate deep learning. Deep learning occurs when students strive to derive personal meaning from the learning experiences, which is usually associated with retaining knowledge for longer periods, and even being able to transfer such learning to novel situations (Thai et al., 2017). Deep learning is opposed to rote learning and surface learning characteristic of traditional classroom environments (Alsayed et al., 2020). Such a role requires experience when facilitating learning for students, thus making it challenging for those who have not been previously exposed to it. The flipped classroom model provides such an alternative modus operandi for learning.

The Flipped classroom model is highly Interactive.

During the in-class phase of the flipped classroom model, there is increased student-teacher interaction. The in-class learning activities include dialogue, debate, projects, case studies, and problem-solving, all of which are hands-on and active learning spaces that place the student at the epicentre of the learning process, while the lecturer shifts to be a guide by the side (Akçayır & Akçayır, 2018). This departs from the monologue teaching pedagogy to a dialogic one. This means that students are provided opportunities for empowerment, and choice of where, when, and how they will learn. The system inculcates faith that the student can make appropriate choices, and there is little power differential between the lecturer and students, and among the learners (Sidky, 2017). This, in turn, improves student-lecturer engagement, increases student intrinsic motivation, as well as develops higher-order learning competencies required in the 21st century as well as embracing the ideals of the Fourth Industrial Revolution (Thai et al., 2017). This is on account of the model availing opportunities and space to students engaging in a wide variety of learning processes (Fisher et al., 2021). The flipped classroom model, then, becomes a novel and innovative approach to teaching and learning in that it increases student engagement and outcomes (Betihavas et al., 2016).

The Flipped Classroom Model employs Active learning.

Conceptually, active learning is a desirable learning strategy because it engages students in the learning process. Advocates of active learning argue that active learning occurs when a teacher pauses in their lecturing/and challenges students to reflect and apply the content they are being taught (McClough & Munro, 2016). This is believed to speed up learning and reflection (Freire, 1968). Such activities can range from problem-based learning, case studies, simulations, role-playing, conceptually oriented tasks, cooperative learning, and inquiry-based learning (Linton et al., 2014). Variations to implementing active learning in the classroom are believed to encourage metacognition. The teacher employs learning strategies that involve students' interactions and

reflections. This may include asking students to engage in tasks requiring discussion, debate, and role-play activities deemed to aid students achieve deeper problem-solving and critical thinking skills, reflexibility, collaboration and synergy, autonomy, and independence (McCullough and Munro 2016:65-66).

Further, the flipped classroom model employs active learning strategies, particularly dialogue to solve problems, respect for everyone's contribution, collaboration, and synergy, as well as fostering interdependence, mutuality, and reciprocity (Ngubane & Makua, 2021). These constitute the values embedded in Ubuntuism (Kang'ethe, 2023; Mugumbate & Chereni, 2020).

Conceptually, Ubuntu is a philosophy informed by a horde of factors, such as those of trust, interdependence, love, sharing, and problem solving, embracing the ethos of patriotism, minding about one's neighbour/s, and being there for one another (Kang'ethe, 2023). Ubuntuism is an appendage of Afrocentrism. There is a call for several scholars for institutions of higher learning to embrace an Afrocentric as well as a decolonized curriculum that would be sensitive to the needs of society (Kang'ethe, 2023). However, due to minimal exposure or training, many academics in African settings have yet to achieve the desirable state of active learning.

The flipped classroom model faces implementation challenges in an Afrocentric setting.

Indubitably, the application and implementation of the flipped classroom model present a glaring challenge, especially in many Afrocentric settings. The professional development component of learning does not relate well to the practice. This, then, affects lecturers' possibility to implement it in the classroom (Halpin & Gopalan, 2022). This could explain why there is still a dominance of teacher-centered approaches despite much research evidence suggesting that such an approach is ineffective in learning (Sigrun & Shulman, 1987). Those attempting to implement active learning techniques for the first time may face resistance from students with the paucity of knowledge with such an approach (Tharayil et al., 2018). Further, those lecturers who were never socialized in the use and implementation of the flipped classroom model may find it difficult to release their control of the classroom. Some studies indicate that a horde of aged academics including lecturers tends to be more resistant to the new change adopting emergent pedagogies (Ehsteshami et al., 2022). This perhaps explains why the application of the flipped classroom model is still in the nascent stages in some higher education countries of the globe. These researchers recommend that instructors in countries with low application and implementation of the flipped classroom model undergo a paradigm shift so that they start applying and implementing the model. These researchers think that much effort towards capacitating Afrocentric lecturers is of paramount importance, as most are not adequately exposed to the newer pedagogies. It is then important that lecturers in these countries are trained in using and applying the flipped classroom model. This would possibly be an asset in flattening power hierarchies in the delivery of professional development.

Strengthen an interplay between the Flipped Classroom model and Afrocentrism.

Opportunely the current study has found that despite the application and implementation of the flipped classroom model manifesting an inextricable relationship with the ideals of Afrocentrism that are embedded in humanism, social learning perspectives, and Afrocentric learning perspectives, most academics, paradoxically, still employ traditional approaches. It is important, therefore, to infuse the constructs of the flipped classrooms model in lecturer development to build confidence, experience, and exposure to this pedagogical approach (Khayat & Osama., 2022). This is because the call for context-specific teaching approaches also necessitates upholding the values of the communities that students come from. In African higher education settings, for example, considering Afrocentric ways of applying flipped classroom models while respecting context-specific nuances, is of paramount importance (Yin, 2020). As such, given the fact that flipped classroom is routed in the student-centred pedagogies, the following minimum standards are proposed: engaging in inter-culturally motivating lessons, mutual respect between teachers and students, and among students, holding dialogue instead of transmissive activities, adopting content relevant to practical and cultural contexts, and increased opportunities for formative and self-assessment (Yin, 2020).

CONCLUSION

This paper employed a literature review methodology to explore the prospects of implementing the flipped classroom model in the professional development of African higher institution lecturers. The review drew sources from empirical literature as well as reviews and research reports worldwide. The study was also grounded in social learning and humanistic theories of learning, as theoretical lenses. The study found that the flipped classroom model has many virtues that could improve learning in Afrocentric higher education settings. Yet, self-belief before learning experiences confounds the prowess to effectively implement the flipped classroom model among many higher education lecturers. Hence there is a need for focused professional development that infuses the flipped classroom model in the development of lecturers in African higher education to address the above challenges. Such professional development ought to foster important professional development components for blended learning environments, such as democratic spaces, interactive learning spaces, self-paced learning, and peer support. All these can be infused by drawing from social learning, humanism, and other Afrocentric perspectives such as the philosophy of Ubuntu. Importantly, professional development for lecturers in African higher education needs to be raised to build confidence, awareness as well and techniques for implementing the flipped classroom model in a way that is productive for learning. The study contributes to new knowledge on the professional development of blended learning in an African setting. The results will be beneficial to academic developers wishing to improve the design of professional development learning programmes by infusing technology into teaching and learning.

Way Forward

This paper focused on the prospects of implementing a flipped classroom model among lecturers in African higher education using literature methodology, with the hope of advocating for the expansion of emergent digital pedagogies to leverage lecturers' professional development as well as improve their learning experiences. Future studies could also focus on empirical studies where lecturers provide reflections of the lecturers after undergoing the professional development programme.

REFERENCES

Ahmad, S. Z. (2016). The Flipped Classroom Model to Develop Egyptian EFL Students' Listening Comprehension. *English Language Teaching*, *9*(9), 166-178.

Akcayir, G. &Akcayir, M. (2018) The Flipped Classroom: A Review of Its Advantages and Challenges. *Computers & Education, 126*, 334-345. https://doi.org/10.1016/j.compedu.2018.07.021

Al-Samarraie, H., Shamsuddin, A. & Alzahrani, A.I. (2020). A flipped classroom model in higher education: a review of the evidence across disciplines. *Education Tech Research Dev, 68*, 1017–1051 (2020). https://doi.org/10.1007/s11423-019-09718-8

Alsayed, S., Alshammari, F., Pasay-An, E., & Dator, W. L. (2020). Investigating the learning approaches of students in nursing education. *Journal of Taibah University Medical Sciences*, *16*(1), 43–49. https://doi.org/10.1016/j.jtumed.2020.10.008

Battista, S., Furri, L., Pellegrini, V. et al. (2023). Which lecturers' characteristics facilitate the learning process? A qualitative study on students' perceptions in the rehabilitation sciences. *BMC Med Educ 23*, 431 (2023). https://doi.org/10.1186/s12909-023-04308-y

Bergmann, J &, Sams, A. (2012). *Flip Your Classroom: Talk To Every Student In Every Class Every Day*. Washington DC: International Society for Technology in Education.

Betihavas, V., Bridgman, H., Kornhaber, R., & Cross, M. (2016). The evidence for 'flipping out': A systematic review of the flipped classroom in nursing education. *Nurse Education Today*, *38*, 15–21. https://doi.org/10.1016/j.nedt.2015.12.010

Bishop, J. L. and Verleger, M. A. (2013). The flipped classroom: A survey of the research. *ASEE National Conference Proceedings,* Atlanta, GA (2013).

Cents-Boonstra, M., Lichtwarck-Aschoff, A., Denessen, E., Aelterman, N., & Haerens, L. (2020). Fostering student engagement with motivating teaching: an observation study of teacher and student behaviours. *Research Papers in Education*, *36*(6), 754–779. https://doi.org/10.1080/02671522.2020.1767184

Dusengimana, C., Munyemana, J.,Jean, J. & Mugabe, G . (2023). Trends in the use of flipped classroom and its effectiveness. A systematic Reviiew. *African Educational Research Journal, 11*(4), 616-633. doi:DOI: 10.30918/AERJ.114.23.096

Ehteshami M, Golzari Z, Fathi L. (2022). Designing a Model of Professional Development Courses for Faculty Members of Farhangian University with a Flipped Learning Approach: A Meta-Synthesis Study. *IEEPJ*. *4*(4), 13-31. doi:10.52547/ieepj.4.4.13

Fisher, R., Perényi, Á., & Birdthistle, N. (2021). The positive relationship between flipped and blended learning and student engagement, performance, and satisfaction. *Active Learning in Higher Education, 22*(2), 97-113. https://doi.org/10.1177/1469787418801702

Freire, P. (1968). *Pedagogy of the oppressed*. Spanish Edition, Brazil

Fuchs, C., (2021) "The Digital Commons and the Digital Public Sphere: How to Advance Digital Democracy Today", *Westminster Papers in Communication and Culture 16*(1), 9-26. doi: https://doi.org/10.16997/wpcc.917

Gqokonqana, O., Olarewaju, O., & Cloete, M. (2022). Blended Learning Challenges During COVID-19: A Case of Cost Accounting 2 Students at a Selected South African Higher Education Institution. *Research in Social Sciences and Technology, 7*(2), 87-107. https://doi.org/10.46303/ressat.2022.11

Halpin, P.A., & Gopalan, C. (2021). Teaching Membrane Transport Concepts Using Flipped Teaching & Dramatizations. *The American Biology Teacher, 83*, 337 - 340.

Hamakali, H., & Josua, L. (2023). Engendering Technology-Assisted Pedagogy for Effective Instructional Strategy in the University of Namibia Language Centre. *Research in Educational Policy and Management, 5*(1), 18-32. https://doi.org/10.46303/repam.2023.3

Iversen, A.M., Pedersen, A. S., Krogh, L., & Jensen, A. A. (2015). Learning, Leading, and Letting Go ofControl: Learner-Led Approaches in Education. *Sage Open, 5*(4). https://doi.org/10.1177/2158244015608423

Kang'ethe, S. M. (2023). The tensions between culture and human rights: Emancipatory social work and Afrocentricity in a global world. *Social Work/Maatskaplike Werk, 59*(4), 419–424. https://doi.org/10.15270/59-4-1180

Keengwe, J. (2022). *Handbook of research on digital-based assessment and innovative practices in education.* IGI Global: Publishing Research for tomorrow today. DOI: 10.4018/978-1-6684-2468-1

Keiler, L.S.(2018). Teachers' roles and identities in student-centered classrooms. *IJ STEM Ed 5*, 34 (2018). https://doi.org/10.1186/s40594-018-0131-6.

Khayat, D & Osama. S. (2022). The Impact of using flipped mobile learning in continuing professional development to develop electronic lecture skills among female university teachers in the Kingdom of Saudi Arabia. University of Southampton, Faculty of Social Science. Southampton: University of Southampton Institutional Repository. doi:http://eprints.soton.ac.uk/id/eprint/457152

Khayat, M., Hafezi, F., Asgari, P., & Talebzadeh Shoushtari, M. (2021). Comparison of the effectiveness of flipped classroom and traditional teaching method on the components of self-determination and class perception among University students. *Journal of*

advances in medical education & professionalism, 9(4), 230–237. https://doi.org/10.30476/JAMP.2021.89793.1385

Koh, J. H.L., Nikki, S., Angela, L., Minako, K., & Sue, M. (2022). Shifting from Lecturing to Flipped Learning—Unpacking Lecturers' Implementation Considerations. *New Zealand Journal of Educational Studies, 57*(1), 1-19. doi:DOI:10.1007/s40841-021-00234-z

Lage, M. J., Platt, G. J., & Treglia, M. (2000). Inverting the Classroom: A Gateway to Creating an Inclusive Learning Environment. *The Journal of Economic Education, 31*(1), 30–43. https://doi.org/10.1080/00220480009596759

Lekgothoane, R. L. (2021). Investigating levels of digital classroom technologies and teacher's usage of technology in selected schools in Limpopo Province." PhD diss., 2021. Doctoral Disseration, University of Limpopo, Education, Limpopo.

Linton, D. L., Farmer, J. K., & Peterson, E. (2014). Is Peer Interaction Necessary for Optimal Active Learning?. CBE life sciences education, 13(2), 243–252. https://doi.org/10.1187/cbe.13-10-0201

Love, B., Hodge, A., Corritore, C., & Ernst, D. C. (2015). Inquiry-based learning and the flipped classroom model. *PRIMUS, 25*(8), 745-762. doi: 10.1080/10511970.2015.1046005

McCullough, K., & Munro, N. (2016). Finance students' experiences of lecture-based active learning tasks. *Innovations in Education and Teaching International, 55*(1), 65–73. https://doi.org/10.1080/14703297.2016.1189843

Mitsiou, D. (2019). "The flipped classroom learning model as a means for acquiring the 21st century skills. *Journal of Contemporary Education Theory & Research (JCETR) , 3*(2), 16-23. doi:10.5281/zenodo.3635032

Moloi, T. S., & Salawu, M. K. (2022). Institutionalizing Technologies in South African Universities towards the Fourth Industrial Revolution. *International Journal of Emerging Technologies in Learning (iJET), 17*(03), pp. 204–227. https://doi.org/10.3991/ijet.v17i03.25631

Moffett, J. (2015). Twelve tips for "flipping" the classroom. *Medical Teacher, 37*(4), 331-336. doi:10.3109/0142159X.2014.943710

Mugumbate, J., & Chereni, A. (2020). Now the Theory of Ubuntu Has Its Space in Social Work. *African Journal of Social Work*, 10, 5-17.

Naidoo, D. (2021). Deep learning opportunities in the geography classroom. *South African Journal of Education*. *41* (2) https://doi.org/10.15700/saje.v41n2a1901

Ngubane, N., & Makua, M. (2021). The intersection of Ubuntu pedagogy and social justice: Transforming South African higher education. *Transformation in Higher Education, 6,* 8 pages. doi:https://doi.org/10.4102/the.v6i0.113

Novak, G. M. (2011). Just-in-time teaching. *New directions for teaching and learning , 128*(2011), 63-73. doi:https://doi.org/10.1002/tl.469

Nouri, J. (2016). The flipped classroom: for active, effective, and increased learning – especially for low achievers. *Int J Educ Technol High Educ 13*, 33 (2016). https://doi.org/10.1186/s41239-016-0032-z

Persky, A. M., & Robinson, J. D. (2017). Moving from Novice to Expertise and Its Implications for Instruction. *American Journal of Pharmaceutical Education, 81*(9), 6065. https://doi.org/10.5688/ajpe6065

Rogers, C.R (2003). *Client Centred Therapy: Its Current Practice, Implications, and Theory by Carl Rogers.* London, Sage.

Rajaram, K. (2019). Flipped Classrooms: Providing a Scaffolding Support System with Real-time Learning Interventions. *International Journal for the Scholarship of Teaching and Learning 9*(1):30-58

Ramulumo, M., & Mohapi, S. (2023). Utilizing Blended Learning to Mitigate the Challenges Brought by Natural Disasters in South African Schools. *Research in Social Sciences and Technology, 8*(4), 76-93. https://doi.org/10.46303/ressat.2023.33

Sidky, G. (2017). The Power Game: Power Dynamics between the Teacher and the Students in a Graduate Seminar. *English Language Teaching, 10*(5) doi: 10.5539/elt.v10n5p179

Sigrun, G & Shulman, L (1987): Pedagogical Content Knowledge in Social Studies, *Scandinavian Journal of Educational Research, 31*:2, 59-70: http://dx.doi.org/10.1080/0031383870310201

Staker, H & Horn, M. B (2012). Classifying K-12 blended learning. *Innosight Institute.*1-18. Retrieved from http://192.248.16.117:8080/research/handle/70130/5105

Thai, N.T.T., De Wever, B. & Valcke, M. (2017). The impact of a flipped classroom design on learning performance in higher education: Looking for the best "blend" of lectures and guiding questions with feedback. *Computers & Education, 107*(1), 113-126. Elsevier Ltd. Retrieved August 10, 2024 from https://www.learntechlib.org/p/200447/.

Tharayil, S., Borrego, M., Prince, M., Nguyen, K. A., Shekhar, P., Finelli, C. J., & Waters, C(2018). Strategies to mitigate student resistance to active learning. *International journal of STEM education, 5*(1), 7. https://doi.org/10.1186/s40594-018-0102-y

Utami, A. R., Lulud, O., & Ive, E. (2021). The Use of Video for Distance Learning During Covid-19 Pandemic: Students' Voice. *I JET (Journal of English Teaching) Adi Buana , 6*(2), 153-161. doi:https://doi.org/10.36456/jet.v6.n02.2021.4047

Van Wyk, M.M. (2014). Conceptualizing an Afrocentric-Indigenous Pedagogy for an Inclusive Classroom Environment. (2014). *Mediterranean Journal of Social Sciences, 5*(4), 292. https://www.richtmann.org/journal/index.php/mjss/article/view/2216

Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes.Massachusetts: Harvard University Press.

Yin, H. (2020). Exploring the Effectiveness of a Flipped Classroom with Student Teaching. *e-Journal of Business Education & Scholarship of Teaching 14*(1) pp: 66-78. "http://www.ejbest.org"