

Blended eLearning Systems in Nigerian Universities: A Context Specific Pedagogical Approach

Muhammad Sadi Adamu^a and Philip Benachour^b
School of Computing and Communications, Lancaster University, U.K.
{m.adamu, p.benachour}@lancaster.ac.uk

Keyword: Multicultural Education, Education Technologies, Blended eLearning, Indigenous Pedagogies.

Abstract: With the surge in information technology globally, recent efforts in sub-Saharan Africa have sought to decolonise and revitalise the process and practice of using technology for/in education, and specifically the development of context-specific pedagogies. This paper presents an analysis of the perspectives of students, lecturers and education managers regarding the blended approach to the use of technology for teaching, learning and management of educational processes. Using a range of interviews, focus group discussions, and rapid ethnography, we report on conflicting ideas and issues that point to the motive for blending, the sort of tools available and adopted, the teaching processes and learning activities the tools support, and where improvement is needed to drive acceptance and use. Findings indicate the relevance of understanding the complexities of the mundane practices of using technology in postcolonial education.


1 INTRODUCTION


Research has emphasized the need for a careful analysis of the assumptions and predictions associated with technology, especially in education (Bernard et al., 2018). In postcolonial studies, recent efforts have shown the implications of decolonising dominant thought and practices of education in Africa, specifically through a critical analysis of the academic identity, processes and practice of knowledge production, and the associated power relations involved in the development of educational practices (Reagan, 2004). Such an effort has implications for the practice of blended education repositioning traditional pedagogies and practices in the development of African knowledge economies.

Regardless of the practical potential of such an assumption, there is the general belief that most of the educational systems in Africa are misdirected. This is primarily due to the ethnocentric assumption that colonial pedagogies, paradigms, frameworks, theories, models and curriculums are universal and applicable to the revitalisation of African education. However, recent efforts have sought to examine how new and sustainable practices can be developed when

past and present discursive patterns are examined in light of current educational needs (Shizha and Makuvaza, 2017). Such a discourse comes with criticism, as some have called for a total overhaul of adopted education practice in Africa, arguing that its indigenous philosophies and traditional thought systems, epistemologies, knowledge, tradition, cultural values and language ought to form the basis for any pedagogical development (Eslin and Horsthemke, 2016). What this suggests is that the decolonisation of education is not straightforward— as it is an ongoing power relation that is determined by and through a constant struggle between cultural ethnocentrism and epistemological ethnocentrism. These demands investigating of the assumptions and motives shaping the global educational discourse.

It is evident that the common tactic of adopting a Western approach to education, with the aid of technology at the expense of indigenous approaches has positioned most African countries in circumstances whereby they are jeopardising the progress made towards a postcolonial educational discourse (Shizha and Makuvaza, 2017). It is essential to politicise any project that attempts to adequately understand the underlying premise informing the practice of blending learning in higher

^a  <https://orcid.org/0000-0002-2314-7414>

^b  <https://orcid.org/0000-0001-8578-4024>

education. Such a fundamental issue necessitates not only an examination of how stereotypical theories, models and frameworks might support the development of appropriate pedagogical practices in sub-Saharan Africa but also calls for a critical examination of the underlying assumptions informing their advancement within and across emerging educational requirements and challenges (El Bouhali and Rwiza, 2017; Shizha and Makuvaza, 2017). What is at stake is the consequential effect of subjugating African education to Western ideologies through its institutional forms of cognitive capitalism, epistemic metrification and intellectual commodification. It is through a critical analysis of these underlying assumptions that motivate and popularise the adoption of technology, that one can begin to identify what the use of technology in decolonising education entails, and how it can be made relevant and sustainable to the evolving educational demands of the Nigerian population. Previous studies have yet to establish whether the blended approach (combining traditional ways of teaching and the adoption of some form of technology to assist teaching processes or learning activities) to education supports and promotes the practice of decolonising education in Africa (Olatuboson et al., 2015; Aladejana and Olajide, 2019; Adeoye, 2020). This paper attempts to fill such a fundamental gap in our understanding of the place of technology in Nigerian higher education.

The objective of this paper is to critically examine the underlying assumptions that promote and popularise the practice of adopting a blended approach to higher education in three Nigerian universities. The analysis identifies a range of issues around the question: Does using blended approach to education actually work and support the development of a context-specific pedagogical approach relevant to the global praxis of decolonising education? Our focus on the blended approach provided insights into both learning, teaching, and the practice of managing educational processes, which accords with observations made concerning the emphasis given to learning while neglecting teaching and management of educational processes (for example, Bernard et al., 2018). Our analysis contributes by identifying the relative importance of a blended approach to the development of Nigeria-centric educational system. These perspectives are not entirely new, as the effort towards decolonisation takes different forms and directions. What can be considered new is our attempt to determine how the blended approach can facilitate the processes of developing a context-specific pedagogical approach relevant to current and emerging educational needs across Nigerian sub-

cultures. It also highlights a range of indicators that emphasise the importance of indigenising educational practices in Nigeria, thereby moving towards developing a specifically African trajectory of the blended approach to teaching and learning.

2 RELATED WORK

This paper draws from the gaps identified by Castro (2019) and Duval and colleagues (2017) concerning the research trend of technology-enhanced learning (TEL). Although the paper is also situated within the decolonisation of higher education literature, an emphasis was placed on the practice of how the adoption and use of technology might support or challenge different motives for a blended approach to education in Nigeria.

2.1 Studies of Higher Education

An analysis of the practice of education is complex issue. In undertaking such an analysis, there is the consideration of how non-western educational traditions can provide an alternative means of developing context-specific and generative educational practices (Reagan, 2004). This is important as research has pointed to the differences between stereotypical (often Western) educational practice and indigenous ones; precisely between indigenous 'education' and globalised 'formal school', the central difference between individualistic and communalistic approaches to education, and of the differences in culture of the subject of education and the context of education (Reagan, 2004; Eslin and Horsthemke, 2016). So, one might argue that the entire educational system in Nigeria was modelled on, and is driven by Western assumptions. Such a critical issue calls for a sensitive re-examination of the entire Nigerian educational ecosystem to make it more responsive to immediate needs, become adaptive to lived conditions, and be made locally driven and realistically transformative.

However, in attempting to revitalise the Nigerian educational ecosystem, there is an emphasis on examining how the multitude of oral and written traditions, indigenous thought and knowledge systems, and different languages rules can bring about a unified paradigm. Such efforts have given rise to the development of 'Nigeria-centric' educational system (Ovaiwe, 2013). The Nigeria-centric model can be considered a backwards-forward thinking framework as it borrows from colonial and indigenous educational practices, thereby making it

pedagogically inclusive and diverse, or perhaps interconnectedly global and local. Although the educational system has relatively repositioned itself through the development of relevant policies, expansion of higher institutions across each state, and the introduction of private universities, studies have shown that the fundamental issues of education in the country remain unsolved (Usoro, 2016; Adeoye, 2020). These issues relate to quality assurance, governance, lack of funding, systematic corruption, and the consequential effect of privatisation and the monetisation of education. Such issues are essential to the practice of blending as they can either support or hinder the adoption and acceptance of educational technologies to be deployed into institutes of higher education. Incorporating these issues into the framing of a blending approach to education might provide the necessary policy directions and guidelines that can assist in maximising the acceptance of the blended approach as a practical alternative in higher education. However, what is relatively lacking is a critical analysis of how the 'Nigerian centric' model might inform the practices of a blended approach to teaching and learning. What interest us is not the analysis of Ovaiwe's thesis in light of the practices of adopting and using technology but identifying how the practices of a blended approach to teaching and learning can support the requirement for appropriating dominant models in line with current and emerging educational needs of the growing Nigerian population.

2.2 Blended Approaches to Learning

The field of TEL has focused on examining how the use of technology can improve the process and practices of teaching, learning, and the management of education. Research has not always been supportive (Bernard et al., 2018), complicated by a range of learning theories, research methodologies, analytical frameworks, and design perspectives (Duval et al., 2017). The general premise is that of seeing technology as an 'enhancer', a 'supporter', a 'mediator', an 'enabler', and an 'aider' of a subject's educational activity or process (Bayne, 2015). However, the determining question is whether blended learning is the solution to the lingering educational challenges in Africa or whether it is a bad idea that needs redeeming? (Spanjers et al., 2015). Such questions point to the understanding of the varied prospect and challenges of blending, but also emphasise how technicity neither satisfies the purpose of education nor the subject's involvement in the processes and practices of acquiring knowledge.

Regardless of such debates, some have examined the research methodologies, frameworks, practices, and focus of blended learning research shown the evolution and divergence of the field and its discourses across different regions of the world (Spring and Graham, 2017). Others have examined how enhancement is quantified, the various design approaches used in ensuring and enabling the adoption and acceptance of technology, and how such claims can inform the practice of the field (Kirkwood and Price, 2014). What all these studies have shown is the implications of issues like pedagogy, institutional culture, and socio-cultural context to the processes and practices of adopting and using technology in higher education. This, we presume, could precisely bring about a better understanding of the place and significance of technology in the renaissance of education in Africa, and specific in Nigeria.

In addition, research has supported the general assumption that technology is a catalyst for the development of communities in Africa (Gulati, 2008). The assumption is that technology can bring about changes in the way we evaluate education, changes in the ways we teach and learn, and changes in the way educational activities and processes are coordinated and managed. It is commonly agreed that the use of technology can support the provision of quality education to the broader population or can either narrow or widen the digital divide and social inequality that exist in developing countries. Specific to Nigeria, the assumption is that the adoption of technology in education can bridge the gaps that exist in the system by providing quality education to all. In clearly articulating the trajectory of such efforts, a range of studies have analysed the potential and opportunities of blended learning (Anene et al., 2014; Adeoye, 2020); the approaches to planning, integration, and acceptance (Okocha, 2019; Aladejana and Olajide, 2019; Ukaigwa and Igbozuruike, 2020), and the conceptual experience of different stakeholders towards the blended approach (Olatuboson et al., 2015; Okocha et al., 2017; Yakubu et al., 2019). However, only a few studies attempt to examine how the adoption of technology has brought about stimulating social interaction, facilitated engagement, and improved instructional processes and learning outcomes (Olatuboson et al., 2015; Oyelere et al., 2016; Okocha, 2019).

What is missing, and what this paper provides, is an in-depth analysis of how different stakeholders involved in the process of deciding, adopting and using educational tools come to examine various factors that would inform the practices of higher

education. One might ask whether the use of technology in postcolonial education brings about an optimal and sustainable approach to the understanding of educational practices? Or is the use of technology merely another ethnocentric appropriation of technological innovation? These questions are relevant to developing a context-specific pedagogy in higher education as they point to how changes can be made subjectively, pedagogically, methodologically, theoretically, policy-wise, and institutionally.

3 CONTEXT AND METHODS

The paper reports findings from a project that concerns the analysis of the design and deployment of educational technology by a range of stakeholders in Nigerian higher education. To determine how the practice of blending can support the requirement for developing a context-specific pedagogical approach in Nigeria, we examined the perspectives of students, lecturers and education managers in three Nigerian universities. The institutional selection was purposive, mainly because we were after universities that have had more extensive access to people from various cultural background, gender, and ethnicity. Uni A is a private university, whereas Uni B and Uni C are public. In all universities, we adopted a snowball approach to selection, recruiting participants from departments and institutes that have adopted a blended approach to teaching and learning. Full institutional ethical approval was obtained (FST17133), including informed consent and participatory information. Obviously, before entering the field, the first author was adequately aware of how his positionality as a Nigerian might impact the research processes in terms of accessibility, rapport, ethics, power relations etc, and practice forms of reflexivity, relational accountability and reciprocal engagement.

Due to the nature of education research and the requirement of using methods that are not only methodologically relevant but also sensitive to the context of use, we adopted an eclectic methodological approach where a range of qualitative methods were employed. This included interviews, focus group discussions, and a conversational approach to rapid ethnography (Beach et al., 2018). During the initial fieldwork, we conducted three focus groups with eighteen students, five interviews with lecturers and an interview with the director of ICT in Uni A. In Uni B, eleven students participated in two focus groups, interviewed four lecturers and interviewed the

director of distance learning institute and head of quality control. In Uni C, we conducted a focus group with three students (which we discarded due to lack of richness and diversity of views), interviewed five lecturers and interviewed the director of ICT and head of learner counselling and support. As we were after more details about the practice of the blended approach to education, the first author went back to the field for two reasons; to reflect on the validity of the initial themes developed, and to collect more detail. For three weeks, we focused on Uni A and Uni B – considered a conspicuous setting – mainly because of the rapport developed during the initial fieldwork.

For the participatory observation, we were interested in the teaching processes undertaken by lecturers and the learning activities carried out by students through the eLearning system. We examined how they undertook specific instructional operations, thereby providing an understanding of present level of engagement and conceptual experiences of use. In each of Uni A and B, two students and two lecturers were observed while using the eLearning system (mostly Google classroom, Moodle and Canvas) and conversation made about their actions and activities. Our conversations were audio-recorded, while field notes and field photographs are taken.

For analysis, we adopted a grounded approach to thematic analysis (Boyatzis, 1998). Our focus was not to develop a theory of blended learning nor adopt any theory in our analysis, but of reporting on what the data might suggest the blended approach. The interview and discussion transcripts were analysed, and common themes are identified and agreed upon. The ethnographic data, consisting of conversation transcript, field notes and photographs were analysed to develop descriptive and interpretive stories. We also validated data through member checking of transcript, interpretative discussion of initial themes, and a dialogical approach to developing member meaning from ethnographic stories.

With regards to the issues of the generalisability of ethnographic account (Crabtree et al., 2013), the synthesis of both themes and interpretive stories provide evidence to provide an adequate understanding of the context which we sought to describe maybe be generalizable to other similar educational African settings (Petticrew et al., 2013). These methodological practices can support the process of developing research approaches that are appropriate to the decolonisation of education in Africa.

4 RESULTS AND DISCUSSIONS

In this section, we summarise and discuss our findings, highlight themes that adequately describe the practice of a blended approach to education across three universities. We also identify specific ideas relevant to each institution, thereby pointing to where differences occur. From the interpretive stories, we briefly outline specific ideas that might suggest the level of engagement with the learning management systems (LMS), and their relative experience of use. This provides an adequate description of their everyday practices, and also our understanding of what they say they do and how they go about doing that they say they do.

4.1 Education Managers

The role of education managers is primarily to manage the processes and activities of an educational institution that adopts technological innovation in their everyday practices. Our focus was on the people that guide the practices of using technology in different part of the universities; those that decide on or influence the policies, strategies and implementation mechanisms to be adopted for blending; and those that ensure quality is maintained and necessary support is provided. We also understood that they were the people in charge of providing or articulating the requirements needed for any innovation. This makes education managers as one of the more important stakeholders in the Nigerian educational system. From the analysis of educational managers' data, four themes emerged; consisting of: those that relate to the learning culture and orientation that necessitated the adoption of a blended approach; the difference in end user's sub-cultures and how they influence the pedagogical approach adopted; the different technologies diffused into their mundane institutional practices; and the mechanism adopted in ensuring adherence to educational best practices. The assumptions and motives guiding the adoption of a blended approach in both private and public universities are relatively common. They share common insights into how the use of technology can bring about optimal ways to the development of an educational practice that takes into greater account the difference in lectures instructional approaches and learners learning preference, thereby emphasising earlier findings concerning the potential of blended approach to teaching and learning (Anene, et al., 2014; Aladejana and Olajide, 2016; Adeoye, 2020). What differentiates the two is the sort of challenges they faced (specifically with issues of

infrastructure, the number of students, and the orientation of students and lecturers) and the institutional policy directions and implementation strategies in places to minimise those challenges.

4.1.1 Educational Culture in Nigeria

With the advancement of technology globally, the practice of education in most of Africa is a reflexive activity between well-established educational paradigms and well-suited practices of education relevant to the intellectual and material need and socio-cultural context of Nigeria. In the Nigerian educational ecosystem, there is no specific institutional culture as people have different orientations towards making meaning and sense of their immediate environment and that of others. What such an ambiguous account might suggest is that the institutional culture is a combination of both western adopted practices and pre-colonial practices (mostly driven by religious and traditional beliefs). All participants promoted the ideas of how the blended approach might be considered relational to the socio-cultural norms and context of the environment. There was an explicit emphasis on how the use of technology can drive pedagogical practices, specifically by pointing to how educational tools can support the activities that are to be carried out in developing the competence and learning of a phenomenon. In a participant's words: "*we came up with pedagogical assumptions and develop models that can upscale the development of employability skills*" (Admin1). This indicates two different ideas; the educational culture in Nigeria might not be variant of educational practices elsewhere, and that the effort towards developing context specific pedagogical practices are ideal to the decolonisation of educational praxis and practices in Nigeria, with or without technology.

4.1.2 Pedagogy in Cross-cultural Context

From the previous theme, the general emphasis was that education is 'a nomadic process' where different agents employ a range of approaches and methods that fit the context of their immediate environment. The more common pedagogical approach is one that emphasises the need for human engagement and interaction. This is achieved through an examination of the context of education and the practical outcome of the knowledge to oneself and one's immediate environment. Such assumption has also brought about taken into account learners' demography, learning style and preference, and thus necessitate the development of a unified pedagogical approach that

meet to those varied needs. This is due to an understanding of people's orientation of developing competence through practical forms of doing and knowing, either individually or collaboratively. The pedagogical practice of all the universities is one that suggests a deeper level-sensitive towards the plurality of different stakeholders, be it students or lecturers.

4.1.3 Technology Use in Education

Naturally, people appreciate an innovation when they deem it relevant, valuable, and interesting to their practice of acquiring knowledge. The adoption and acceptance of technology in education is not only about improving the ways we teach and learn, but also the processes of managing an educational institution. For managers, the emphasis was on how technological advancement has brought about a rethink of education. For example, a participant pointed that *"the technology has been a key factor to adoption as it has streamlined our operations, reduce cost, improve transparency, and speed up operational processes"* (Admin1). The tools mostly used among the three universities include different LMS's (Moodle, google classroom, blackboards and canvass), open education resources (OER's), integrated library systems (e.g. Koha), plagiarism detection application (e.g. Turnitin), and other Google services. Dedicated labs and computer-based training centres for computer-based test and other relevant educational requirements are also available. However, due to prevailing issues of connectivity, lack of basic training and know-how, and people's attitude towards change and new technology, the adoption of educational tools in the universities is minimal. There is also the issue of how the number of students, specifically in public universities, might have negatively influenced the perception towards education technologies. Regardless of the issues identified above, all participants were totally in support of the need for appropriating the frameworks and models that inform the planning, integration, and evaluation of blending, therefore complimenting Ukaigwe and Igbozuruikwe's (2020) findings towards ways for sustainable integration and further improvement.

4.1.4 Effective Educational Practices

From the analysis, all managers expressed their firm commitment towards adhering to guidelines and regulation laid out by the relevant regulatory agencies. Such policies emphasise the training of staff with the necessary skill to do their job, the development of learning content based on the

curriculum outline (and to be reviewed periodically) and ensuring that learner have a satisfactory learning experience. In ensuring that their everyday practices are up to the standard, relevant quality control and support service directorates are established. The directorates identify strategic action plans and institutional instruments that could bring about developing educational models that are responsive and relational to the peculiarity of the environment. A manager suggested that they achieve reasonable results through their timely use of learning analytics in reducing attrition rate, the incubation of research ideas and projects into the immediate environment, and the continuous engagement with the relevant stakeholder in developing learner's employability and entrepreneurship skills. From our understanding, this moves towards the development of the capabilities and capacities of the future generation, therefore presenting the call for making the Nigerian education system to be context-specific timely and necessary for the sustainable development of any well-meaning and futuristic community. From the perspective of educational managers, one can appreciate the different assumptions and ideas that have popularise the adoption of technology in the postcolonial practice of education, not entirely a decolonisation concept but a technological necessity for the development of the Nigerian knowledge economy. The analysis of the perspective of lecturers thus offer insights that affirm Castro's (2019) multiple accounts about the organisational, pedagogical and technological potentials of blended learning in higher education.

4.2 Lecturers

For lecturers, we interviewed those that we learnt are active users of the LMS adopted in their institution. In Uni A, the lectures are from the department of computing (2), library science (2), and mathematics department (1). In Uni B, they are from the department of library science (2) and computing (2), while in Uni C from the distance learning institute (the institute operates a blended mode). The selection, even when diverse, was purposively snowballed. During the ethnographic observation, we were after understanding the various activities and actions they used the LMS for. The fieldworker allowed a natural occurrence of events, asking a question where necessary and appropriate. The universities are using three different LMS's (Uni A uses Google classroom, Uni B uses Moodle and Canvass, and Uni C uses Moodle). With the differences in the social and institutional context, the activities carried out are

relational, whereas their experience might be relatively different (depending on course, level of engagement, attitude towards use, and so on). From the analysis of the data, three themes emerged; consisting of those related to the understanding of what the blended approach entails, their activities and experience of engagement; the instructional approach adopted and its impact to the students learning process and outcome, and issues that might have promoted or hindered adoption and acceptance.

4.2.1 Towards a Unified Blended Language

First, we attempted establishing participants understanding of what blended learning is. Among the fourteen participants, ten gave a decisive definition about what blended eLearning can be using a range of terminologies like *'electronic, technology, virtual learning, and online learning'* to express the form it takes, while also using terms like *'effective, quick, improve, learn easily, and convenient'* to demonstrate the relevance of this form of learning. From the analysis, it is to deduce that the medium of instruction and the benefit that comes with using the tool to teach or learn signifies how blended eLearning is understood and expressed by the participants. Such an analysis might bring about a shared language in describing and understanding the practice of a blended approach to education in Nigeria. In addition, lecturers' use the LMS to undertake a range of activities, from uploading and disseminating learning content and recommended text, to downloading submitted assignment, grading and assessment (tutor marked, computer-based quizzes and reflective project work), providing learning support, and also engaging in discussions with students. Some see the advantage of the LMS as compared to when they were not using it – suggesting that it is *'fun to use, simplify assessment, it is faster as compared to conventional ways, convenient, interesting and open at all time'*. Apart from their subjective experience, we establish the challenges that might have warranted or limited the adoption of educational tools. The facilitating issues include the limitation of infrastructure, the incompatibility of hardware, the issues of connectivity, the lack of awareness of the advantages of adoption, and the lack of adequate training and guidelines towards integration and utilization.

From the analysis also, we understood that the LMS is underutilised by even those that are using it. For example, lecturers don't utilise the live streaming functionality and the discussion forum where they can engage students in a range of learning activities or dialogue. The level of engagement with the tools

among all participants is fairly laudable, ranking from 5 using it daily during multiple instances, 5 using it around 3-4 times weekly (mainly due to the structure of their course), while the remaining 4 using it averagely twice a week. Their minimal use was supported by some suggesting that due to the number of students that they handle, using the LMS adds extra workload, therefore justifying their minimal use. When asked of their experience of using the LMS to support their pedagogical processes and activities, all lecturers expressed a positive attitude towards the use of the LMS's as compared to conventional methods of instruction. Twelve among them pointed out that it is *'easy, complimentary, save time, reduce the burden on us, ease academic work, and feel at ease while using it'*. The other two lecturer's felt that it is *'not that responsive and user-friendly'* (Lect10) and that *'it is really tasking'* (Lect11), thereby providing a varied and important perspective. However, the two participants that made such a remark are from Uni C, which might suggest the indifference between lecturers towards the adoption and use of LMS's, be it in private or public universities.

4.2.2 Impact of Instructional Approaches

This theme carries ideas about how the instructional approach adopted by lectures might have been supported by the educational tools deployed in their institution. Among the fourteen lectures, seven adopt a didactic approach while the remaining seven adopt a user-centred approach. This is supported by a remark that *"the user-centred approach gives some control to the user as they can engage in other forms of individual and collaborative learning. It is more like people don't harness the full potential of the LMS, and if they do, the effect on their learning experience will be enormous"* (Lect10). On whether the use of educational tools assist in actively administering the instructional approach they choose, all participants except one suggested that the use of the LMS does complement their teaching style. The outlier was supported by the participants level of underutilization. Also, there is a general agreement among all participants, regardless of them being from a private or public university that the use of the LMS does have an impact on the students learning experience and not learning outcome. Although some have pointed to how specific indicators like the course of study and the orientation of student might have had an impact on the level of engagement, other factors like the level of student-lecturer interaction slightly influence learning outcome. The assumption is that the more the students engage with the tools

deployed, the more they develop an interest in the subject and the more they develop new skills. To emphasise the impact of instructional approach on student level of engagement, a participant suggested that 'students are excited about using Moodle because it gives them a completely different experience of learning from what they are used to' (Lect4), which might suggest that the use of the LMS supports the pedagogical approach widely adopted by lecturers.

4.2.3 Issues of Acceptance and Use

The generic assumption facilitating the adoption and acceptance of technology is that of the availability and accessibility of technology, the relative characteristic of the innovation, the pedagogical relevance and advantage of use, and other forms of social influencers. In public universities, the major factor hindering adoption is the orientation of people towards technology, the limitation of infrastructure and connectivity, the uneven ratio of student to available resources, and the unawareness of the prospect and potential of the adopted technologies. For the private university, the major issue is the mentality of people towards new development and change. To bring about more adoption and acceptance, it is presumed that developing an awareness of the prospect and potential of blending would inform the perception, intention, and eventual use among prospective adopters. planning, framing and integration of technological innovation in the processes and practices of higher education. There is also the requirement for developing sustainable planning directions and practical implementation strategies that could inform the framing and decision of future blend. It is through the analysis of what might work (and not) that one can begin to examine how context-specific pedagogical approaches can be generatively developed.

4.2.4 Engagement and Experience

From the analysis of the ethnographic data of lecturers using Google classroom (two lecturers from computing in Uni A) and Moodle/Canvass (two lecturers from distance learning institute in Uni B), we briefly attempt to established lecturer's level of engagement, what's they like and dislike about the tool, and where improvement is needed. Consequently, those in Uni A were more enthusiastic with the whole idea of using the LMS to complement their instructional process and activities. While observing the two lecturers', the fieldworker noticed how they navigate with the platform, through the utilisation of universal design features (icons and

buttons), suggesting how intuitive, integrative and adaptive the platform is and can be. What they like the most about the Google classroom is its '*simplistic outlook*', how it allows '*scheduling of instructional activities*', how it provides '*storage space*', and the ways it integrates with their email. The two participants also expressed displeasure towards the way changes are made to the platform periodically, suggesting that they prefer the older version as the updated version is not personalised or tailored to the context of the environment, making it harder to navigate for new users. It is our understanding that their experience and perception towards the platform might influence the behavioural intention and attitude of a new adopter, thereby providing insight into how adoption can be encouraged and upscaled.

For the two lecturers from Uni B, their level of engagement was relatively low as compared to their colleagues in Uni A. This might be due to the laid-back attitude of most lecturer's in public universities to change. The data suggested that their engagement with the platform is occasional, mainly for disseminating learning materials to students and for carrying out different form of assessment. However, they suggested that they mostly engage their student in discussions through a WhatsApp group they created, mainly because it is more handy and convenient, allowing a seamless means of engaging with students at any time. When asked what they like about their use of either Moodle or canvass, a lecturer replied by asking: '*Do I even like anything about it? There isn't anything special*'. The participants also expressed displeasure with the interface (suggesting that it is not mobile-friendly) and the inactivity of the instant messaging functionality. To sum up, the analysis suggests that lecture's in Uni A have had a relatively satisfactory experience of their use of Google classroom through a blended mode, whereas those in Uni B might have struggled with a range of issues that negatively impact on their experience of use and intention towards continual use.

4.3 Students

Here, we conducted a range of discussion regarding their use of the LMS as part of their learning processes. In Uni A, eighteen students participated in three discussions – two groups from computing (2nd and 3rd year) and a group (1st year) from General studies department. In Uni B, the two groups consisted of 3rd-year computing and 4th-year library science students. As for the ethnographic observation, we wanted to develop a better understanding of the various activities and actions they undertake with the LMS. Although the universities use different LMS's, we were after understanding what the reality is and what can be considered ideal usage. Out of the focus

discussion analysis came about three themes; consisting of those related to their activities and level of engagement; the kind of support provided through the LMS's (what is ideal and the reality of what they are getting), and the sort of challenges they face and suggestions for what they might want to see shortly.

4.3.1 Learner Activities and Level of Use

Although the student in public and private universities use different LMS's, the activities that they use the tool for are the same. The activities range from downloading and submitting assignments, downloading learning materials and other learning resources, checking notifications about classes, assessments, result notification, and deadlines; taking assessment and engaging in collaborative forms of learning and discussion via group chats. In Uni A, the LMS sends a notification to their email or a pop-up notification through their mobile app. All students suggested that they either use their laptop or mobile phone to access the LMS. The level of engagement with the tools and the reflection on the experience of use is different between the two universities, primarily because in Uni A, students were more liking (using terms like interesting, user-friendly, responsive, and straightforward) of the flexibility that comes with the LMS and of what they could achieve using the tools. In Uni B, students were less appreciative of the LMS, mainly because not all lecturers use it as part of their learning processes. This might suggest the willingness of students to adopt and use of the tools deployed in their institutions. However, students are not particularly concerned with what it can do or what it cannot do but are willing to use it whenever they are asked. This raises questions concerning the subjectivity of adopters and users' as they are 'required' and 'compelled' to accept and use deployed tools, regardless of their subjective perception, attitude or behaviours towards what was deployed, thereby negating conflicting conclusion drawn by Okocha and Colleagues (2016, 2019). There is no correlation between learning style, preference or adopter's characterisation towards adoption and use, but merely on the influence of the power's exercised by both manager and lecturers on students.

4.3.2 Learner Support

Adding onto learner's activities and level of usage is the degree to which academic support is provided through the LMS's. It is our understanding that when students are actively engaged in their academic activities through the LMS, there is the possibility of

a better level of satisfaction when the tool is '*interactive, easy to use, faster, and available at all times*'. Specific to learner support through the LMS, there is a distinction between what is idle (a support system that would help in harnessing the potential of collaborative learning and continual engagement with peers and lecturers) and what they are getting. The reality in both universities is that students are aware of the functionality for individual or collective support through chat forums and discussion boards. But due to an awareness of certain limitations, both technical and educational, the perception of students towards support is that the system is not responsive and timely. We understood that the necessary support is said to be available to the student, either through the platform or in-person. However, we couldn't develop whether the student utilises such provisions and its impact on their learning engagement and conceptual experience.

4.3.3 Challenges and Needed Improvement

Regardless of their positive experiences, all students narrated of the sort of challenges they mostly face; which are relational to the issues raised by lecturers – either technical or educational. The technical challenges are about infrastructure, connectivity, and accessibility, whereas the educational challenges concern the lack of awareness about services available and the orientation of students towards learning. The consequential effect of such a challenge is that people have different learning culture and preference, therefore making the adoption of a particular pedagogical approach suitable to the educational needs of some while unsuitable to others. This is why the requirement for developing a generative pedagogical approach that takes into account the different sub-cultures and language requirement in the context of learning is important. For improvement, Uni B students are interested in having a mobile, whereas students in Uni A wanted their LMS to be able to have a real-time assessment function and a redesign of its feature to be accessible without internet connectivity.

4.3.4 Engagement and Experience

Here, the analysis seeks to discuss how the LMS design features might have facilitated (or not) their level of interaction and engagement. All students suggested a relatively positive perception and attitude towards the tools deployed in their university. This is gauged through how the LMS allows access to learning materials, communication with lecturers and peers through discussion forums, and how flexibility

is incorporated in the processes of use. One of the features that they find interesting is the 'to-do list' where all new update and upcoming deadlines are listed out. For Uni A, they receive email notification of any update to the LMS, therefore constantly drawing their attention towards the platform and which can prolong level of engagement and improve their overall learning experience. The students that use the Google classroom app felt that it is simple, user-friendly, and integrates well with other Google services. The students from Uni B suggested their experience of using canvass by suggesting that it is easy to navigate and use. However, one of the students point out that newcomers might find it difficult to navigate as some of the quick links are not intuitive enough for one to find them readily easy to use. In a nutshell, although the analysis is relatively brief, one can appreciate how the observatory perspective adds to the insights developed from earlier themes.

5 CONCLUSIONS

In this paper, we examine the extent to which the practices of a blended approach to education in three Nigerian universities, support developing a context-specific pedagogical approach relevant to the praxis and practice of decolonising education. We analyse data collected from students, lecturers, and education managers through a range of qualitative methods. The analytic themes developed, and the interpretive stories highlight a range of ideas with regards to the cross-cultural practice of using educational tools for teaching and learning. We not only provide an account of mundane educational practices but also highlight specific issues relevant to Nigerian higher education. We suggest further examination of how the use of technology can support the process of decolonising education; identifying ways to delink from ethnocentric perspectives and moving towards developing alternative and generative means of articulating a 'Nigeria-centric' community of educational practice. This would provide an alternative approach to well-known theories, paradigms and models that have directed the development of education globally and need to be reassessed and relived in line with the pedagogical requirements of Nigeria. As such, the ideas presented in this paper are relevant to policymakers and government agencies as they consider the implications of digital technologies within the broader context of higher education.

Although our focus is primarily on identifying the implications for the process of developing a context-specific pedagogical approach, our analysis also points to important ideas about the need to develop eLearning systems that stimulate interaction, facilitate engagement, and provide a meaningful learning experience, thereby emphasis issues often neglected in the literature (Olatuboson et al., 2015; Oyelere et al., 2016; Okocha et al., 2017; Yakubu et al., 2019; Okocha, 2019). We believe this is significant, as the analysis of the data has shown that the adoption of technology through a blended approach is not merely about how the technology can support the practice of education, but also about how the use of the technology can bring about a shift in our theoretical and conceptual formulations concerning non-western educational processes and practices (Reagan, 2004). Decolonialism is an optional project concerned with inverting modern conventions and structures shaping the practices, theories, and methodologies of subjectivity. So, the decolonisation of education is about imagining and developing alternative and liberative forms of ethical subjectivity. Our analysis has shown that the practice of adopting eLearning systems through a blended approach support the appropriation and the development of context specific and emerging pedagogical approaches and strategies relevant to the educational needs of different Nigerian sub-cultures. However, our analysis has not shown significant implications concerning the pedagogical and socio-cultural sensitivities practiced by educational managers in the process of blended education support for the decolonisation of education.

As decolonialism is a continual process, providing conclusive answers towards the practices of decolonising blended education might wrongly suggest an ethnocentric ideology. We emphasise and encourage a critical analysis of established assumptions in line with emerging educational conditions and needs in Nigeria. This can be achieved either through the problematization of what can be regarded as an oppressive pedagogy that has moulded the educational development of the community (Friere, 2018) or through the method of pedagogization at a crossroad of other related technological issues (Alexandra, 2006). Future work would attempt to examine how the 'problematization of the pedagogy' and the 'crossroad pedagogization' concepts can bring about alternative means for developing indigenous pedagogies and the practices of designing, evaluating and deploying education technologies in Nigeria.

ACKNOWLEDGEMENTS

The authors would like to thank Mark Rouncefield for comments on earlier draft and our anonymous reviewers for the critical and insightful feedback on this work. This paper is part of a project funded by the Petroleum Technology Development Fund (PTDF), Nigeria.

REFERENCES

- Adeoye, B. F. (2020). The Era of Digital Technology in Teaching and Learning in Nigeria Educational Institutions. In *the Roles of Technology and Globalization in Educational Transformation* (pp. 43-51). IGI Global.
- Aladejana, F. O., & Olajide, S. O. (2019). Assessment of Opportunities and Implementation of Blended Learning Strategies in Nigeria Higher Education: A Case Study of Obafemi Awolowo University. In *Handbook of Research on Challenges and Opportunities in Launching a Technology-Driven International University* (pp. 279-298). IGI Global.
- Alexander, M. J. (2006). *Pedagogies of crossing: Meditations on feminism, sexual politics, memory, and the sacred*. Duke University Press.
- Anene, J., Imam, H., & Odumuh, T. (2014). Problem and prospect of e-learning in Nigerian universities. *International Journal of Technology and Inclusive Education (IJTIE)*, 3(2), 320-327.
- Bayne, S. (2015). What's the matter with 'technology-enhanced learning'? *Learning, Media and Technology*, 40(1), 5-20.
- Beach, D., Bagley, C., & da Silva, S. M. (2018). *Ethnography of Education: Thinking Forward, Looking Back*. The Wiley Handbook of Ethnography of Education, 513-532.
- Bernard, R. M., Borokhovski, E., & Tamim, R. M. (2018). The State of Research on Distance, Online, and Blended Learning: Meta-Analyses and Qualitative Systematic Reviews. In *Handbook of Distance Education* (pp. 92-104). Routledge.
- Boyatzis, R. E. (1998). Transforming qualitative information: Thematic analysis and code development. Sage.
- Castro, R. (2019). Blended learning in higher education: Trends and capabilities. *Education and Information Technologies*, 24(4), 2523-2546.
- Crabtree, A., Tolmie, P., & Rouncefield, M. (2013). "How Many Bloody Examples Do You Want?" Fieldwork and Generalisation. In *ECSCW*, 21-25 September 2013, Paphos, Cyprus (pp. 1-20). Springer, London.
- Duval, E., Sharples, M., & Sutherland, R. (Eds.). (2017). *Technology-enhanced learning: Research themes*. Springer.
- El Bouhali, C., & Rwiza, G. J. (2017). Post-millennium development goals in sub-saharan Africa: Reflections on education and development for all. In *Re-thinking Postcolonial Education in Sub-Saharan Africa in the 21st Century* (pp. 13-31). Brill Sense.
- Enslin, P., & Horsthemke, K. (2016). Philosophy of education: Becoming less Western, more African. *Journal of Philosophy of Education*, 50(2), 177-190.
- Freire, P. (2018). *Pedagogy of the oppressed*. Bloomsbury publishing USA.
- Gulati, S. (2008). Technology-enhanced learning in developing nations: A review. *IRRODL*, 9(1).
- Kirkwood, A., & Price, L. (2014). Technology-enhanced learning and teaching in higher education: what is 'enhanced' and how do we know? A critical literature reviews. *Learning, media and technology*, 39(1), 6-36.
- Okocha, F. (2019). Acceptance of Blended Learning in a Developing Country: The Role of Learning Styles. *Library Philosophy and Practice*.
- Okocha, F., Eyiolorunshie, T. A., & Oguntayo, S. A. (2017). Student Acceptance of Blended Learning in Nigeria: A Case Study of landmark University Students. *Advances in Multidisciplinary and Scientific Research*, 3(1).
- Olatubosun, O., Olusoga, F. A., & Samuel, O. A. (2015). Adoption of elearning technology in Nigerian tertiary institution of learning. *Current Journal of Applied Science and Technology*, 1-15.
- Oviawe, J. O. (2013). Appropriating colonialism: Complexity and chaos in the making of a Nigeria-centric educational system (Doctoral dissertation, Washington State University).
- Oyelere, S. S., Suhonen, J., Shonola, S. A., & Joy, M. S. (2016). Discovering students mobile learning experiences in higher education in Nigeria. In 2016 IEEE Frontiers in Education Conference (FIE) (pp. 1-7). IEEE.
- Petticrew, M., Rehfuess, E., Noyes, J., Higgins, J. P., Mayhew, A., Pantoja, T., ... & Sowden, A. (2013). Synthesizing evidence on complex interventions: how meta-analytical, qualitative, and mixed-method approaches can contribute. *Journal of clinical epidemiology*, 66(11), 1230-1243.
- Reagan, T. G. (2004). *Non-western educational traditions: Alternative approaches to educational thought and practice*. Routledge.
- Shizha, E., & Makuvaza, N. (Eds.). (2017). *Re-thinking Postcolonial Education in Sub-Saharan Africa in the 21st Century: Post-Millennium Development Goals*. Springer.
- Spanjers, I. A., Könings, K. D., Leppink, J., Verstegen, D. M., de Jong, N., Czabanowska, K., & van Merriënboer, J. J. (2015). The promised land of blended learning: Quizzes as a moderator. *Educational Research Review*, 15, 59-74.
- Spring, K., & Graham, C. (2017). Thematic patterns in international blended learning literature, research, practices, and terminology. *Online Learning Journal*, 21(4).
- Ukaigwe, P. C., & Igbozuruike, I. U. (2020). Planning and Integration of Technologies for Effective Implementation of Blended Learning in Universities in

Rivers State, Nigeria. *Advances in Social Sciences Research Journal*, 7(1), 452-462.

Usoro, E. B. (2016). Towards transformation of higher education in Nigeria: A practical reality. *Journal of Pristine*, 12(1), 1-12.

Yakubu, M. N., Kah, M. M., & Dasuki, S. I. (2019, April). Student's Acceptance of Learning Management Systems: A Case Study of the National Open University of Nigeria. In *International Conference on Sustainable ICT, Education, and Learning* (pp. 245-255). Springer.