



Research Article

© 2023 Samson Adeoluwa Adewumi.
This is an open access article licensed under the Creative Commons
Attribution-NonCommercial 4.0 International License
(<https://creativecommons.org/licenses/by-nc/4.0/>)

Received: 5 September 2022 / Accepted: 17 December 2022 / Published: 5 January 2023

Curriculum Design and Students' Learning Experience in Post COVID-19 Era in Nigeria

Samson Adeoluwa Adewumi

Faculty of Management Sciences,
Mangosuthu University of Technology,
South Africa

DOI: <https://doi.org/10.36941/jesr-2023-0017>

Abstract

The continuous quest for effective and global best practice in curriculum design to promote appropriate learning and teaching experiences is still not without some conundrums, particularly in the context of higher institutions of learning in Nigeria. The current study pursues the argument that curriculum design has major implications for students' learning experience in the post-COVID-19 era in Nigeria. Remarking on the discourse of curriculum studies, not much attention has been given to the nexus between curriculum design and students' learning experience in post-COVID-19 era in Nigeria. A total of 16 undergraduate students were recruited purposely and conveniently for interview from the Faculty of Management Science of the Lagos State University, Nigeria. NVivo (v.12) qualitative software was employed to identify themes and sub-themes which were analysed with content qualitative analytical tool. Expert contributions, quality assurance, practical knowledge and innovative contents were shown as global trends in curriculum design. In terms of the role of curriculum design in students' learning experience, stimulating environment and the creation of higher thinking and learning experience were revealed, and the implications of curriculum design for higher education development in post-COVID-19 were found to include improved e-learning and teaching experience and improvement in technology and innovation-aided teaching and learning. The study calls for the overhauling of Nigeria's higher education curriculum in tandem with global best practices for innovative students' learning experience.

Keywords: Curriculum, students, education, knowledge, university, COVID-19

1. Introduction

The changing nature of curriculum design has long remained a crucial discourse among faculty members, stakeholders and university administrators (Adiaha et al., 2019). The recent focus of this discussion has been the extent of teaching and learning disruptions provoked by the emergence of the COVID-19 pandemic that has seen a drastic curriculum amendments and reorganisation among many universities globally (Bao, 2020). The teaching and learning delivery emanating from this amendments has remained a subject of controversy in students' learning experience (Baanqud et al., 2020). Curriculum design and restructuring in higher institutions of learning have relished the enormous benefits of information and communication technology and the accompanied methods of teaching and learning instructions as well as the stretching of the physical classroom away from ts

four walls (Arkorful & Abaidoo, 2015). These new curriculum modes of teaching and learning delivery have been criticised by some as a threat to the existing curriculum and instructions of teaching and learning policy with the propensity to disrupt and alter students learning experience in post-COVID-19 era.

With the high incidence of disruptions caused by the emergence of the COVID-19 pandemic, higher institutions of learning are transitioning from the use of conventional to innovative curriculum that dovetails with the realities of the post-OVID-19 era for students' learning experience, skills development and capacity building. The required skills and students learning experience needed to compete in today's changing world is tied to the effectiveness and efficacy of curriculum in terms of its design and implementation (Bai et al., 2020). For instance, in this post-COVID-19, curriculum design should be tailored to how to stimulate appropriate students learning experience in the areas of transformational skill development and knowledge. According to Brown and Livstrom (2020, p. 13) the push for curriculum design will continue to form public debates in teaching and learning best practice, particularly in a quest to align with global trends and demands. The envisaged curriculum is expected to stimulate students with rich knowledge content and understanding for higher education development (Chugh, Ledger & Shields, 2017). Importantly, the array of these experiences has further echoed the significance of having a well-designed and structured curriculum for best teaching and learning outcomes.

The assemblage of the challenges that have continued to affect curriculum design and implementation in Nigeria calls for serious scrutiny with untold effect on the knowledge acquisition of students and their learning experience (Igbokwe, Mezieobi & Eke, 2014). For instance, a number of the curricular employed by higher education in Nigeria are devoid of critical experts' opinion and contributions leaving students with awkward learning experience (Emeh et al., 2011). In other words, the gamut of these challenges have continued to wreak havoc on the development of higher education in Nigeria (Igbokwe, Mzieboi & Eke, 2014).

In general, it is explicit that the roles and functionality of the Nigerian higher education curriculum are being grossly impacted by the disruptions of the COVID-19 pandemic (Adiaha et al., 2019). For instance, learning and teaching instructions were more impacted negatively leaving options to e-learning, teaching aided modes and the quest to upscale existing technology and innovative measures for the effective transmission of knowledge and teaching while the pandemic last. In contrast, the argument has been that the COVID-19 pandemic has engendered severe implications for students' learning experience with the concern of teaching and learning engendering negative outlook in the post-COVID-19 era.

According to Cunningham et al., (2019, p.430), curriculum changes and adjustment in the post-COVID-19 pandemic has a number of consequential impacts on the learning experience of students, particularly with the sparsity and poor utility of appropriate e-learning instructions and innovation-aided teaching technology. These issues, no doubt, convey severe implications for students' learning, skills development and knowledge acquisition (Ocean, Tukwasibwe & Oketch, 2021). The argument, therefore, in this paper is premised on the locus that the events that characterised the COVID-19 pandemic have led to major shake-off in the existing curriculum with explicit implication of the learning experience of students in post-OVID-19 pandemic era.

There have been a number of studies on curriculum design in Nigeria. For example, Igbokwe, Mezieobi and Eke (2014) interrogated teachers' attitude to curriculum change and implementation for inclusive education; Izuagba and Atuobi's (2009) thesis examined quality education through innovation in Nigeria's higher institution; Ogar and Awhen's (2015) study examined teachers' perceived problems of curriculum implementation in tertiary institutions and Emeh et al., (2011) curriculum review and stakeholders' reactions. From this array of available studies, hardly has there been any study that interrogated curriculum design and students' learning experience in post COVID-19 era in Nigeria. This chasm identified the originality of this study and the intended pursuit to address the literature gap. The objectives of this paper are in three folds: to ascertain innovative global trends in the design of curriculum in higher institution of learning; identify the roles of

curriculum design in students' learning experience and the implications of curriculum design for higher education development in post- COVID-19 era.

The research contribution is the interrogation of the implication of curriculum design on students' learning experience in Nigeria, particularly in a post-COVID-19 era. It is an incontestable fact that existing studies on curriculum design have examined the discourse through the prism of teachers' perception, inclusiveness, implementation and development leaving issues on students learning experience, drawing emphasis from the post COVID-19 narratives. By examining this discussion, the study hopes to ignite fresh debates and discussions on curriculum design and students' learning experience narratives. The paper, after a brief explanation of the twin concepts of curriculum and curriculum design, proceeds to review curriculum design and students' learning experience. What follows is the explicit explanation of the different methodological approaches employed in the study.

2. Conceptualising Curriculum and Curriculum Design

The conceptual understanding of curriculum espouses a variety of definitions and meanings. The challenge of arriving at a single definition cannot be unconnected from the range of diverse perceptions and opinions held about the concept by different stakeholders including students, researchers, educators and allied administrators (Doering, 2006). Thus, the challenge of consistency clearly exudes the complexity of the concept of curriculum. With this in mind, it is instructive to conceptualise the term "curriculum" before attempting to conceptualise "curriculum design". The conceptual meaning of curriculum explicates an embodiment of knowledge, skills and attitude that are impacted on persons through the school administration system (Jia, Zhou & Zheng, 2021). By "knowledge", is meant the integration of all facts, postulations, philosophies and rules required to be attained for an individual/student to be certified as competent in a chosen area of study.

By implication, a curriculum is a set of scheduled activities planned to implement a specific educational goal in terms of the content of what is to be impacted (Johnson, Hornik & Salas, 2018). Curriculum can be defined as a planned and guided learning activities proposed by the school, irrespective of whether such learning activities are executed with an individual or group, or within or outside the school premises (Kim, 2012). On a more concise ground, a curriculum represents an agreement between the educational administrators and the State on the mode of learning contents and instructions learners should take for a specific period of their learning lives (Adiaha et al., 2019).

Curriculum design can be construed as the administrative process involved in the maintenance of precision and ensuring up-to-date information about a curriculum (Li, Zhang, Dai & Hu, 2021). Thus, it can be conceptualised as an academic exercise, management and instructional supervision of the school business, not omitting learning and other teaching procedures (Igbokwe, Mezieobi & Eke, 2014). With this in mind, it is instructive to argue that curriculum design and management is a comprehensive learning activities that shoulder the involvement of other relevant stakeholders in order to engender the successful implementation of the curriculum intentions (Brown & Livstrom, 2020). The academic exercise of curriculum design does not abrogate an existing curriculum with a new one, rather it connotes addressing a specific teaching and learning experience (Westbury, 2016).

Curriculum design represents a procedure that can be swift, elastic and responsive with the intention of attaining a more productive teaching and learning experience. This procedure can be undertaken through two systemic methods including the educational design and institutional process (Izuagba & Atuobi, 2009). The educational design entails the contribution of experts in the design of students' learning experiences and the associated institutional learning processes, while institutional process captures the design of curriculum through market research and quality assurances (Izuagba & Atuobi, 2009). Curriculum content and design, particularly at the level of higher education is organized in a fixed time frame. For example, the COVID-19 global pandemic and the accompanying lockdown conundrums have vastly coxswained educators and university managers to reconsider the appropriate teaching and learning practices that dovetail with the trends and events that

characterised the COVID-19 global pandemic (Arkorful & Abaidoo, 2015). However, the post-COVID-19 era is now integrating and synergizing the in-person and distance education with the expectations to see some changes in the existing curriculum. These expected changes have seen a number of innovative proposals for addressing the challenges in the new learning experiences in the post-COVID-19 era.

3. Curriculum Design and Students' Learning Experience

Curriculum design, no doubt, represents a tenuous academic exercise, especially among educators who are saddled with the initiation, design and ensuring its implementation for effective students learning experiences. There are many discrepancies among stakeholders as to who is more fitting to lead the planning, priorities and contents of curriculum design (Li, Zhang, Dai & Hu, 2021). The task of curriculum design represents an educational planning exercise where the implementation of educational experience signposts important measures for evaluating students' development and learning experience (Bümen & Holmqvist, 2022; Ndou, 2008). The heights of disagreement between stakeholders on who to pilot the responsibility of curriculum design reflect a disheartening narrative, especially when a lower level of thinking dominates the design and implementation of the programme (Reese, 2015). This argument portrays the risk of low learning experience on the part of students (Ogar & Awhen, 2015).

Curriculum design creates a roadmap that incites the knowledge and rich understanding connected with higher thinking that stimulates a challenging and intellectual environment for students (Bladh, 2020; Arkorful & Abaidoo, 2015). The two most important components of any curriculum design are the communication of knowledge in an active mode and how students comprehend it (Tokgöz & Bümen, 2021; Shaver, 2017; Asebiomo, 2009). There have been several arguments on the need for evaluating students' learning experience. For instance, Baanqud et al., (2020) argue that it is the responsibility of educators to ask "what has changed in the students learning experience" as a result of the curriculum design and implementation. Thus, an operational curriculum must be able to create a student-friendly environment for learning. All of the exertions of curriculum design are not unconnected to providing effective learning instructions to the students (Adu & Ngibe, 2014). The members of curriculum design group must be grounded and knowledgeable in the intricacies of curriculum design and implementation. This is in addition to having explicit objectives of the curriculum programmes. According to Leeman and Wardekker (2011, p.31), the appropriate question that ensues from a well-designed curriculum should reflect the threshold of the acquired knowledge.

Higher institution of learning during the COVID-19 global pandemic adjusted to distance learning method of teaching and learning and the implementation of the online mode of teaching and learning delivery (Muller, 2022; Li et al., 2021). A number of universities adopted different learning tools and approaches for this purpose. According to Yao & Guo (2018, p. 1920), these tools include online classes, simulation and e-learning teaching and learning methods. Swart et al., (2014) argued that these developments ensued with significant effects on the learning experiences of students. The application of these learning approaches are no doubt distinct from the everyday classroom teaching and learning approaches (Singh, 2012). For example, the adoption of the online teaching and learning processes demand a thorough and careful adaptation from the perspective of the educators and learners for a stimulating learning experience (Deng, 2022; Wilson, 2008).

The curriculum engagement and design that have seen alteration from the conventional in-person to an online teaching and learning mode will plausibly modify the perception of students in connection with their learning experience and how they are likely to amend in the post-OVID-19 era (Adiaha et al., 2019). These modifications possess serious implications for the development of higher education (Rawling, 2022; Bevan et al., 2015). The understanding of curriculum design encompasses several important characteristics. For example, in the perspectives of teacher and student, it means setting certain standard for curricula which is related to a specific knowledge area. The extended

period of school closure during the COVID-19 pandemic has steered austere obstructions for students' learning experience with drastic curriculum changes and amendments (Alderson, 2020; Bouiheres et al., 2019). McCaw (2017) argued that during the lockdown, higher institutions of learning were perplexed with alteration and pursuit of covering the annual curriculum permitted within the academic year. This experience has continued to reflect on the learning experience of students (Jang et al, 2020; Izuagba & Atuobi, 2009).

The curriculum-related challenges that arose during the lockdown include the lack of time for the completion of the current academic year with negative outlook on the development of higher education. Several arguments have been advanced on the significance of curriculum design for a positive students' learning experience (Tan et al., 2017). According to Lunenberg (2011, p.60), teachers are expected to shoulder more of a facilitator character and employ a strand of teaching modes. Hendry and Winfield (2013) conceptualised problem-based learning as focused, experiential knowledge with an emphasis on examination, clarification and meaningful resolution of conflicts. The students, on the other hand, are expected to play a more dynamic role towards learning. Conclusively, the discourse of curriculum design must be tailored towards ensuring that students attain sustainable learning experience.

4. Methodology

The philosophical assumption of this study is grounded on the interpretivist research philosophy. The assumption of this approach is aimed at unearthing a deep qualitative understanding of curriculum design and its implication on students learning experiences in post-COVID-19 era. It affords the opportunity to explore, understand and interpret the implication of curriculum design on students' learning experiences through respondents' real world perspectives (Saunders, Lewis & Thornhill, 2009). Similarly, it offers the incorporation of the human elements into a study, the meanings emanating from such study and how these meanings can be understood in any research situation (Sekaran & Bougie, 2016). For this study, the human elements of students' were interrogated to understand the implication of curriculum design on their learning experiences for policy enhancement in post-COVID-19 era.

The assumption of the exploratory design is borrowed to situate the research blueprint. This is justified to expand the limits of the existing knowledge on the themes of curriculum design and students' learning experiences in post-COVID-19 era (Creswell, 2014). For instance, the interrogation of the literature hardly showed any research on curriculum design and students' learning experiences in a post-COVID-19 era in Nigeria. Thus, the presupposition of the exploratory design becomes apposite to advance this research chasm. The population of the study were selected students from the Lagos State University, Nigeria. The selected respondents were undergraduates selected from the departments of Accounting, Finance, Business Administration, Marketing and Industrial Relations and Personnel Management (IRPM) of the Faculty of Management Sciences (See Table 1 for sample distribution). The sample size consists of total of 16 undergraduate students. This sample size is appropriate and justified to unearth deep and exploratory research findings in a qualitative study (Shields & Rangarajan, 2013). In other words, a sample size within the range of 10-20 is appropriate for a qualitative study (Yin, 2016).

The students were strategically recruited on purposive and convenient grounds. For instance, students were recruited based on their understanding and exposure to the subject matter. This was realised through referrals from the faculty manager of the university. What followed was the intentional selection of students who were ready and comfortable with the timing and structure of the interview. The total number of students who met this criteria culminated into a total of 16 undergraduate students. The semi-structured interview type was employed as the data collection instrument. This method is justified to allow for the enquiry of follow-up questions and responses, especially in the instance when the questions or responses are ambiguous (Quinlan, 2011).

An interview guide was employed during the interview process to allow for an unhindered flow

of questions and responses. The conventional challenges known with the interview method of data collection such as ambiguity in language and responses and the possibility of misunderstanding the questions and responses were adequately addressed by ensuring that the questions were worded in English language and easy to comprehend by all the respondents. The total duration of the interview was for a period of four months; from 13 December, 2021 to 23 July February, 2022. The range of questions interrogated addresses innovations and global trends in curriculum design in higher institutions of learning; the roles of curriculum design in students' learning experiences and the implication of curriculum design for higher institution development in post-COVID-19 era respectively.

The quality of the data was ascertained with the adoption of the Trochim and Donnelly's (2007) four stages of ensuring the reliability of qualitative data viz; credibility, transferability, dependability and confirmability respectively. The credibility of the data was pursued by ensuring that the data reflected the view of the respondents. The transferability was attained by allowing for the transferability of the findings to other research context. Dependability was certified by ensuring strict compliance to all ethical considerations in the data collection and report of findings. For confirmability, a nexus between the data and results was ensured. The NVivo (v.12) qualitative software was used in the identification of themes and sub-themes from the interview scripts. The content qualitative analytical tool was thereafter employed to make sense of the themes and sub-themes. The data engender a crucial insight on the narrative of curriculum design and its implication on students learning experiences. The post-COVID-19 discourse makes important case on the question of university development through curriculum design and implementation. The limitations of the methodology were issues around accessing students for a face-to-face interview.

Table 1: Students demographic distribution

Respondents	Gender	Department	Year of Study	Age
Respondent 1	Female	Business Administration	4	25
Respondent 2	Female	Marketing	4	24
Respondent 3	Male	IRPM	2	21
Respondent 4	Male	Finance	4	25
Respondent 5	Male	Business Administration	4	24
Respondent 6	Male	IRPM	3	22
Respondent 7	Female	Marketing	3	22
Respondent 8	Female	Accounting	4	26
Respondent 9	Male	Marketing	4	24
Respondent 10	Female	Finance	2	23
Respondent 11	Female	IRPM	3	23
Respondent 12	Male	Business Administration	4	26
Respondent 13	Male	Accounting	4	25
Respondent 14	Male	Marketing	3	24
Respondent 15	Female	Accounting	4	24
Respondent 16	Male	Finance	4	25

Source: Data analysis

5. Analysing and Interpretation of Findings

5.1 Global trends in the design of curriculum

The importance of curriculum design remains a sacrosanct debate for educators and related stakeholders within the academia, particularly as a measure for building a sustainable educational sector. These concerns are robustly supported by the desire to adopt global trends in the design of

curriculum in Nigeria's higher institutions of learning. The contents and structure of the Nigerian curriculum across the three tiers of education, particularly the higher education, do not reflect global trends and innovative metrics with evidence of obsolete and ambiguous contents. This narration has continued to significantly impact the quality and effectiveness of the Nigerian universities' course content delivery at higher institutions (Tan et al., 2018). From the analysis, majority of the respondents explained that a number of innovative and global trends required in the design of curriculum include the need for expert contributions, emphasis on quality assurance, skills and practical knowledge and innovative contents and learning instructions respectively.

The place of expert contributions cannot be over-stretched. The respondents argued that this has been lacking within the Nigerian setting where educators and appropriate expert contributors are excluded in the design and implementation of curriculum. This situation has further led to the corruption in the administration of effective and quality education through robust and implementable curriculum design in Nigeria. The Nigeria educational space requires a high level expert contribution to overhaul the moribund curriculum that does not dovetail with global standard. This intention can be attained by bringing in innovative trends into the existing curriculum for better results. One of the respondents agreed with this and explained below:

We should start engaging expert contributions when it comes to curriculum design. This is important to ensure that we align with global trends as we cannot be in isolation. The design of the Nigerian curriculum is presently lacking this important metrics and I am afraid we cannot get the best. I believe we should start inculcating and making use of expert contributions and educators when it comes to curriculum design and start doing away with the use of those without the appropriate expertise and knowledge. This is the only way we can start talking about comparing our curriculum with global innovation and trends.

The importance of quality assurance also remains crucial in the narrative of curriculum design. It was explained by the majority of the respondents that the existing curriculum and course contents employed in teaching and learning was devoid of quality assurance on all grounds. This argument reflects a background of Nigeria's culture of quality assurance where projects and policies are not effectively given the desired quality attention for best performance. According to the respondents, the poor quality of monitoring on the part of those saddled with the responsibility of ensuring effective curriculum design is manifested in the poor implementation of curriculum and course content in many Nigerian universities. One of the respondents echoed similar conclusion as follows:

The Nigerian attitude of poor quality assurance has remain a concern for effective curriculum design. This is so as the Nigeria situation does not give detail attention to policy implementation. I will argue that for innovation and global best practices to be inculcated into the higher education curriculum, the government through the ministry of education must be willing to dedicate a high level of quality assurance. Otherwise, higher education curriculum design will continue to suffer setback in terms of quality and innovation.

The Nigerian curriculum has continued to undergo criticism for lacking in appropriate skills and practical knowledge initiatives. One of the essentials of any curriculum design is the ability to transmute it into appropriate skills and practical knowledge hub for the overall interests of the students. The large majority of the respondents agreed that the current curriculum is not designed to engender skills and practical knowledge in tandem with global trends and innovation. As explained, the curriculum and course content does not reflect basic features of skills development and appropriate practical and knowledge development characterised as innovations globally. One of the respondents argued in support of this narratives as follows:

One thing I have to talk about is the fact that the Nigerian higher education curriculum is precisely lacking the required skill development initiatives and knowledge. We are only rehearsing what I call memorisation rather than skills development and the inculcation of knowledge as it obtains in other parts of the world. In other word, our curriculum and its design need appropriate restructuring in such a way that skills development initiatives will be added, without which we will continue to have a situation of less of skill development initiatives in our curriculum.

The significance of innovative contents and learning instructions was averred by another respondent as critical to determining the innovativeness of curriculum design in this epoch of technological advancement. Majority of the respondents canvass for the adoption of innovative contents and learning instructions such that students can become conversant with global trends. This position was echoed by a respondent in the following lines:

We need to do more in terms of having an innovative content and learning instructions. The Nigerian higher education curriculum is strictly lacking in these areas. We have a learning instruction that does not reflect any measure of innovation and our course content is not innovation-driven either. I believe a lot has to be done in this area in order to push towards global trends and innovation when it comes to curriculum design.

5.2 *Role of curriculum design in students' learning experience*

Curriculum design plays an important role in students' learning experience in the areas of cognition, thoughts and ability to stimulate learning and teaching into a positive outlook. The significance of curriculum design cannot be separated from the educational fulfilment of students. The different roles of curriculum design in students' learning experiences were identified by the majority of the respondents to include knowledge and rich understanding of course contents, stimulating learning environment for students, creation of higher thinking and learning experience and the evaluation of students' development and learning experience.

Knowledge and rich understanding of the course content were argued as fundamental to evaluating the significance of curriculum design in students' learning experience. For instance, majority of the respondents contended that it is not out of place to link a well-developed and designed curriculum to the rich knowledge and understanding of course content on the part of students. Thus, the quality of curriculum and syllabus employed has a role to play on how students become knowledgeable in the understanding of the course contents. Majority of the respondents held the view that the state of their learning experience was nothing to write home about as the present curriculum is not well taught especially in the areas of inculcating global trends and innovative contents. This position again, explains the situation of Nigeria's higher education curriculum. One of the respondents explained his learning experience as follows:

Curriculum design has a huge role to play in students learning experience. One of such role is the importance of knowledge and rich understanding of course content. I mean students can become more knowledgeable in a subject matter when the curriculum is well designed in tandem with realities. Otherwise, it can be expected that students will be lacking in the appropriate knowledge needed to compete globally. So I will conclude by saying that our learning experience is nothing compared to our expectation. Our curriculum is outdated and there is no where we can grasp the appropriate knowledge and understanding of the contents.

The concern of creating a culture of student- thinkers is also critical in the evaluation of students' learning experience. This was argued by majority of the students as important to students' development and ability to solve problems. It was further argued that if there is a well-developed and designed curriculum in place, teaching and students' learning experience will not only be developed, but their capacity to think and solve problems will equally be enhanced. This position was explained below:

I will argue that curriculum design is critical to enhancing and creating a higher thinking and learning experience for students. My position is the fact that if the curriculum is well structured and the contents are designed for students thinking capacity and their ability to solve problems, we would have enough students with high problem solving skills as graduates in Nigeria.

The majority of the respondents argued that curriculum design plays a vital role in the evaluation of students' development and learning experience. It suffices to argue that the evaluation of students' academic progress and development is closely related to the nature and content of the curriculum design being employed in teaching and learning. The majority of the respondents argued

against the effectiveness of the curriculum design in evaluating students' development and learning experience. One of the students recounted as follows:

We have a situation before us that majority of the students are not being evaluated on their learning development and experience because of the shortfalls in the existing curriculum. The contents of the curriculum are not designed in such a way that they can be used to measure and evaluate students' leaning progress and experience. The curriculum is not often fine-tuned to meet up with this reality and this is not in the best interest of the students.

5.3 Curriculum design and higher education development in post-COVID-19 era

The future of higher education in Nigeria, with the trends and events around curriculum development, looks uncertain. The post-COVID-19 experience has ushered in many higher institution with staggered and unstructured curriculum which indicate a recipe for poor development and performance. For curriculum design and implementation to be employed for integrated higher education development, a number of strategic measures must be introduced in this post-COVID-19 era. These measures include improved e-learning and teaching experience, improvement in technology and innovation-aided teaching and learning and the quest for structural changes and amendment to teaching and learning. For instance, it was argued by the majority of the respondents that the COVID-19 pandemic has welcomed e-learning and teaching experience with major flaws in its utility. The contention, however, was the advocacy for the improvement of positive teaching and learning experience outlook. One of the respondents argued further as follows:

We have seen major disruptions of the teaching and learning space with the emergence of the COVID-19 pandemic. These disruptions have necessitated teaching and learning measures such as the introduction of e-learning and teaching experience in universities of learning. In my opinion, this measure has not yet yielded the desired metrics for higher education development. I think we must improve this through curriculum design for better students and enhanced students learning and teaching experience.

The analysis also reflects on the importance of technology and innovation-aided teaching and learning. These arguments explain the significance of technology- aided measures as critical components required of any curriculum for teaching and learning practices. Majority of the respondents agreed that the use of technology and other innovative measures were lacking in teaching instructions, and canvassed for the inculcation and utility of appropriate technology- aided measures for positive results. This analysis was further explained by one of the respondents:

We have been lacking greatly in the areas of technology and innovation-aided teaching and learning instructions. These important measures are missing in our existing curriculum and I am of the opinion that we should start thinking about these things if we want to see changes in terms of the development of higher education in Nigeria. We need to begin the process of ensuring technology teaching aided practices are well included in the curriculum of teaching and learning and by extension ensure that students are developed through these measures. The post- COVID-19 pandemic has presented us with the need to be proactive and we must ensure that technology is given priority to ensure the best teaching and learning experience for higher education development.

Improvement in teaching and learning can only be actualized with the over-hauling and structural changes to the curriculum and teaching instructions in higher education in Nigeria. This conclusion was agreed to by majority of the respondents as one critical pathway to the realisation of sustainable development in Nigeria's higher education.

I think we should start this campaign of curriculum design for university development through major structural changes and clear amendment to our existing curriculum. We need to take a step of revamping the existing curriculum if we are truly interested in changing the tide of our educational system. From bottom to top, there is a need for a major check-up and change.

Table 2: Matrix of major themes

Research questions	Major themes
What are the innovative global trends in the design of curriculum in higher institution of learning?	Experts contributions, quality assurance, skills and practical knowledge and innovative contents and learning instructions
What are the roles of curriculum design in students learning experience?	Knowledge and rich understanding of course content, stimulating learning environment, creation of higher thinking and learning experience and the evaluation of students development and learning experience
What are the implications of curriculum design for higher education development in post COVID-19 era?	Improved e-learning and teaching experience, improvement in technology and innovative teaching and learning, structural changes and amendment to teaching and learning

Source: NVivo Analysis

6. Discussion of Findings

The motivation for this study has been to understand the implications of curriculum design in students' learning experience in a post COVID-19 era. The crux is to appreciate the importance of curriculum design beyond the narrative of students' academic development to a more substantive discourse of students' learning experience. The aftermath of the COVID-19 pandemic instigates a rich empirical ground for understanding the changes and amendments in curriculum and what these portend for students' learning experience in higher education. Curriculum design and implementation have been argued as one of the critical components of higher education development. Thus, its significance cannot be over-stretched in the discourse of understanding students' learning experience.

As shown from the findings, several innovative trends and practices were identified in the design of curriculum including expert contributions and opinion, quality assurance, skills and practical knowledge, and innovative content and learning instructions respectively. The findings show that curriculum design requires stout expert contributions for a positive students' learning experience. These findings reveal a contrary situation in the Nigerian context where the contributions of experts are ignored in curriculum design and policy implementation. In other words, several of the public policies on education have continued to suffer severe setbacks. To attain skills and practical competence requires global attention, the Nigerian higher education curriculum must pursue innovation in curriculum design for a rewarding students' learning experience. These findings support existing studies (Li et al., 2021; Leeman & Wardekker, 2011).

The findings show the critical role of curriculum design in stimulating students' learning experience, including the enablement of knowledge and rich understanding of course content, stimulating learning environment, creation of higher thinking and learning and the evaluation of students' development and learning experience. A well-structured designed curriculum can provoke stimulating knowledge and understanding of learning and teaching. This knowledge can be transmuted into a rewarding learning experience for students. Clearly, developing an expert-based curriculum possesses so much importance for the learning experience of students and the development of higher education. What is not clear, however, is the extent of the significance of the existing curriculum in Nigeria's higher institutions of learning to engender suitable students learning experience (Adiaha et al., 2019).

The findings also highlights the implication of curriculum design for higher education development in post-COVID-19 era. These implications include the need for improved e-learning and teaching experience, improvement in technology-aided teaching and structural changes and amendment to teaching and learning. The emergent of the COVID-19 pandemic has engendered different disruptions in the manner at which learning and teaching are delivered. In order to ensure a

positive outlook of the curriculum, there is a need to improve on the use of e-learning for enhanced students' learning experience. Technology aided teaching and learning measure must be enhanced in the curriculum as a measure of reducing the impact of the COVID-19 pandemic on higher education development. In a nutshell, the existing higher education curriculum requires a thorough structural amendment through practical revamping for improved students' learning experience and higher education development in this post- COVID-19 era (Bai et al., 2020; Bouiheres et al., 2019; Brown & Livstrom, 2020).

7. Conclusion, Recommendations and Suggestion for Future Study

The interrogation of the discourse of curriculum design beyond the narrative of students' academic development to important themes of implication on students learning and higher education development offers new research debates in the canon of curriculum literature. The study concludes that curriculum design and implementation are not offered the required global innovative support. This has culminated into poor students' learning experiences. On this premise, it is important to commence a dialogue on how crucial innovative trends and practice can be invoked into curriculum design and implementation in Nigeria's higher education. Appropriating this dialogue will clearly exude the role and transformational agenda of curriculum design in engendering robust students' learning experience and enhanced higher education development. While these measures remain sacrosanct, the study concludes on the need for the inculcation of expert opinion for widely accepted curriculum design that can stimulate positive students' learning experience in post-COVID-19 pandemic.

Overall, the study recommends an urgent need for the overhauling of Nigeria's higher education curriculum in tandem with global best practices. This can be actualised through robust stakeholders' contribution at the design and implementation stage. Major structural changes must be introduced in the delivery of teaching and learning for inclusive and enhanced students' learning experience. This recommendation becomes salient owing to the disruptions caused by the emergence of the COVID-19 pandemic. For a positive students' learning experience in post-COVID-19 era, all hands must be on deck with the aim of revitalising the existing higher education curriculum for good. Further studies can explore and compare the learning experience of multiple universities in Nigeria, since the current study is limited to a single case.

References

- Adiaha, M.S. Anabe, M.I. Ndifon, M.A. Udom, G.I. & Ocheje, D.U. (2019). Implementing contemporary issues through curriculum development, teaching models and curriculum design for teaching institutes in Nigeria. *Journal of Education*, 2(1), 1-5.
- Adu, E.A. & Ngibe, N.C.P. (2014). Continuous change in curriculum: South African teachers' perceptions. *Mediterranean Journal of Social Science*, 5(23), 983-989. <http://dx.doi.org/10.5901/mjss.2014.v5n23p983>
- Alderson, P. (2020). Powerful knowledge and the curriculum: contradictions and dichotomies. *British Educational Research Journal*, 46(1), 26-43. <https://doi.org/10.1002/berj.3570>
- Arkorful, V. & Abaidoo, N. (2015). The role of e-learning, advantages, and disadvantages of its adoption in higher education. *International Journal of Education and Research*, 2(12), 397-410.
- Asebiomo, A. M. (2009). Teacher assessment of integrated science curriculum in Federal Capital Territory Abuja for effective implementation. *Journal of Curriculum Studies*, 16(2), 123-181.
- Baanqud, N. S. Al-Samarraie, H. Alzahrani, A. I. & Alfarraj, O. (2020). Engagement in cloud-supported collaborative learning and student knowledge construction: a modelling study. *International Journal of Educational Technology and Higher Education*, 17, 56-67. <https://doi.org/10.1186/s41239-020-00232-z>.
- Bai, H. Duan, H. Kroesbergen, E. H. Leseman, P. P. & Hu, W. (2020). The benefits of the learn to think program for preschoolers' creativity: an explorative study. *Journal of Creative Behaviour*, 54, 699-711. <https://doi.org/10.1002/jocb.404>
- Bao, W. (2020). COVID-19 and online teaching in higher education: a case study of Peking University. *Human Behavior and Emerging Technologies*, 2, 113-115. <https://doi.org/10.1002/hbe2.191>.

- Bevan, B. Gutwill, J. P. Petrich, M. & Wilkinson, K. (2015). Learning through stem-rich tinkering: findings from a jointly negotiated research project taken up in practice. *Science Education*, 99, 98–120. <https://doi.org/10.1002/sce.21151>
- Bladh, G. (2020). GeoCapabilities, Didaktical analysis and curriculum thinking—furthering the dialogue between Didaktik and curriculum. *International Research in Geographical and Environmental Education*, 29(3), 206–220. <https://doi.org/10.1080/10382046.2020.1749766>
- Bouiheres, F. Ha Le, L.V. McDonald, S. Nkhoma, C. & Monterra, L.J. (2019). Defining students learning experience through blended learning. *Education and Information Technologies*, 25, 3039–3069. <https://doi.org/10.1007/s10639-020-10100-y>
- Brown, J. C. & Livstrom, I. C. (2020). Secondary science teachers' pedagogical design capacities for multicultural curriculum design. *Journal of Science and Teaching Education*, 31, 1–20. <https://doi.org/10.1080/1046560X.2020.1756588>
- Bümen, N.T. & Holmqvist, M. (2022): Teachers' sense-making and adapting of the national curriculum: a multiple case study in Turkish and Swedish contexts. *Journal of Curriculum Studies*, <https://doi.org/10.1080/00220272.2022.2121178>.
- Chugh, R., Ledger, S. & Shields, R. (2017). Curriculum design for distance education in the tertiary sector. *Turkish Online Journal of Distance Education*, 18, 4–15. <https://doi.org/10.17718/tojde.306552>.
- Creswell, J. W. (2014). *Research design: qualitative, quantitative and mixed methods approach*. [E-book] California: Sage Publications. Available at: <http://www.researchgate.net/file.PostFileLoader.html?assetkey...> [Accessed 16 May 2022].
- Cunningham, C. M. Lachapelle, C. P. Brennan, R. T. Kelly, G. J. Tunis, C. S. A. & Gentry, C. A. (2019). The impact of engineering curriculum design principles on elementary students' engineering and science learning. *Journal of Research in Science Teaching*, 57, 423–453. <https://doi.org/10.1002/tea.21601>
- Ocean, J. Tukwasibwe, C. & Oketch, C. (2021). Analysis of stakeholders' involvement in the implementation of the M.A curriculum literature at Kabale University using e-learning approach. *East African Journal of Education Studies*, 3(1), 199–210. <https://doi.org/10.37284/eajes.3.1.384>.
- Deng, Z. (2022). Powerful knowledge, educational potential and knowledge-rich curriculum: pushing the boundaries. *Journal of Curriculum Studies*, 54(5), 599–617. <https://doi.org/10.1080/00220272.2022.2089538>.
- Doering, A. (2006). Adventure learning: transformative hybrid online education. *Distance Education*, 27(2), 197–215. <https://doi.org/10.1080/01587910600789571>
- Emeh, J.U. Isangadighi, A.J. Asuquo, P. Agba, I.K. & Ogabo, A.M. (2011). Curriculum review: reactions from education stakeholders in South-South of Nigeria. *Global Journal of Human Social Science*, 11(2), 33–41.
- Hendry, P. M. & Winfield, A. G. (2013). Bringing out the dead: curriculum history and memory. *Journal of Curriculum Theorizing*, 29(1), 1–24.
- Igbokwe, U. L. Mezieobi, D. I. & Eke, C. (2014). Teachers' attitude to curriculum change: Implementation for inclusive education in Nigeria. *Research on Humanities and Social Sciences*. 4(11), 92–99.
- Izuagba; A. C. & Atuobi, A. O. (2009). Quality education through innovation: examples of tertiary institution in Nigeria. *European Journal of social sciences*, 10(4), 605–613.
- Jang, Y. Lee, H. Kim, Y. & Min, K. (2020). The relationship between metacognitive ability and metacognitive accuracy. *Metacognitive Learning*, 15, 411–434. <https://doi.org/10.1007/s11409-020-09232-w>.
- Jia, Y. Zhou, B. & Zheng, X. (2021). A curriculum integrating STEM and maker education promoting pupils' learning motivation, self-efficacy and interdisciplinary knowledge acquisition. *Frontiers in Psychology*, 12, 1–10. <https://doi.org/10.3389/fpsyg.2021.7252525>.
- Johnson, R. D. Hornik, S. & Salas, E. (2008). An empirical examination of factors contributing to the creation of successful e-learning environments. *International Journal of Human-Computer Studies*, 66(5), 356–369. <http://dx.doi.org/10.1016/j.ijhcs.2007.11.003>
- Kim, J.Y. (2012). A study on learners' perceptual typology and relationships among the learner's types, characteristics, and academic achievement in a blended e-education environment. *Computers & Education*, 59(2), 304–315. <https://doi.org/10.1016/j.compedu.2012.01.010>.
- Leeman, Y. & W. Wardekker (2011). Redesigning vocational education: The possibilities of design based research. *Journal of Curriculum Studies*, 43(3), 313–331. <https://doi.org/10.1080/00220272.2011.557838>.
- Li, Y. Zhang, X. Dai, D.Y. & Hu, W. (2021). Curriculum innovation in times of the COVID-19 pandemic: the thinking-based instruction theory and its application. *Frontiers in Psychology*, 12, 1–18. <https://doi.org/10.3389/fpsyg.2021.601607>
- Lunenberg, F. (2011). Theorizing about curriculum: conceptions and definitions. *International Journal of Scholarly Academic Intellectual Diversity*, 13(1), 56–68.

- McCaw, C. (2017). Secondary school students' ideas of learning and schooling. A case-study of an intensive, experiential middle-years program. *Curriculum Perspectives*, 36(2), 1-13. <https://doi.org/10.1007/S41297-016-0001-7>.
- Muller, J. (2022). Powerful knowledge, disciplinary knowledge, curriculum knowledge: Educational knowledge in question. *International Research in Geographical and Environmental Education*, 1-15. <https://doi.org/10.1080/10382046.2022.2058349>.
- Ndou, N.F. (2008). *The role of school management teams in curriculum change management*. MA dissertation. Johannesburg: University of South Africa.
- Ogar, O.E & Awhen, O.F. (2015). Teachers perceived problems of curriculum implementation in tertiary institutions in Cross-Rivers State of Nigeria. *Journal of Education and Practice*, 6(19), 145-151.
- Quinlan, C. (2011). *Business research methods*. South-western: Cengage Learning.
- Rawling, E. (2020). How and why national curriculum frameworks are failing geography. *Geography*, 105(2), 69-77. <https://doi.org/10.1080/00167487.2020.12094091>
- Reese, S. A. (2015). Online learning environments in higher education: connectivism vs. dissociation. *Education and Information Technologies*, 20(3), 579-588. <https://doi.org/10.1007/s10639-013-9303-7>.
- Saunders, M. Lewis, P. & Thornhill, A. (2009). *Research methods for the business student*. England: Pearson Education Limited.
- Sekaran, U. & Bougie, R. (2016). *Research methods for business: a skill-building approach*. 6th Ed. United Kingdom: John Wiley and Sons Limited.
- Shawer, S. F. (2017). Teacher-driven curriculum development at the classroom level: implications for curriculum, pedagogy and teacher training. *Teaching and Teacher Education*, 63, 296-313. <http://dx.doi.org/10.1016/j.tate.2016.12.017>.
- Shields, P. M. & Rangarajan, N. (2013). *A playbook for research methods: integrating conceptual frameworks and project management*. Oklahoma: New Forums Press.
- Singh, P. (2012). Tobophobia: teachers' ineptitude to manage curriculum change. *International Journal of Psychological and Behavioral Sciences*, 6(12), 3495-3502.
- Swart, W., MacLeod, K., Paul, R., Zhang, A. & Gagulic, M. (2014). Relative proximity theory: measuring the gap between actual and ideal online course delivery. *American Journal of Distance Education*, 28(4), 222-240. <https://doi.org/10.1080/08923647.2014.924721>.
- Tan, L. S., Koh, E. Lee, S. S. Ponnusamy, L. D. & Tan, K. C. K. (2017). The complexities in fostering critical thinking through school-based curriculum innovation: research evidence from Singapore. *Asia Pacific Journal of Education*, 37, 517-534. <http://dx.doi.org/10.1080/02188791.2017.1389694>.
- Tokgöz, C. M. & Bümen, N. T. (2021). Turkish teachers' autonomy in using and adapting curriculum: A mixed methods study. *Issues in Educational Research*, 31(4), 1270-1292. <https://www.iier.org.au/iier31/tokgoz-can.pdf>
- Trochim, W. M. K. & Donnelly, J. (2007). *The research methods knowledge base*. 3rd ed. Mason, OH: Thomson Custom Publishing.
- Westbury, L. (2016). State-Based Curriculum-Making: The Illinois Learning Standards. *Journal of Curriculum Studies*, 48(6), 783-802. <http://dx.doi.org/10.1080/00220272.2016.1186740>.
- Willson, R. W. (2008). In-class-online hybrid methods of teaching planning theory: Assessing impacts on discussion and learning. *Journal of Planning Education and Research*, 28(2), 237-246. <http://dx.doi.org/10.1177/0739456X08324286>.
- Yao, J. X., & Guo, Y.Y. (2018). Core competencies and scientific literacy: the recent reform of the school science curriculum in China. *International Journal of Science Education*, 40, 1913-1933. <https://doi.org/10.1080/09500693.2018.1514544>
- Yin, R. K. (2016). *Qualitative research from start to finish*. 2nd Ed. New York: The Guilford Press.