



Digital Pedagogies: An Innovation in Teaching Strategies in Nigeria

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Abstract

Education as a fundamental human right is a key driver of national development, but it is currently faced with enormous challenges in contemporary Nigerian society. The challenges in the education sector comprised, the abysmal fund allocation, inadequate provision of basic infrastructure, shortage of experienced and qualified teachers, obsolete curriculum and very poor standard of regulation among others. To avert some of these challenges in the sector, there is need to adopt a transformative teaching-learning strategy such as the digital pedagogies and others for effective outcomes. For this reason, the concept of digital pedagogies and its implications for teaching strategies in Nigeria are critically explored to leverage on enhancing technological based instructional delivery system, that will improve both the learning interest of the students, as well as motivate the pathway to personalized learning experiences, equity and excellence in the Nigerian educational system. The paper also reviewed the various interactive learning platforms, multimedia resources, and collaborative learning tools as a key component of digital pedagogies. The paper further provided some insights to the potentials of digital pedagogies in transforming the teaching process as well as the challenges and opportunities of the innovation in the Nigerian education sector. Finally, conclusion was drawn based on the findings and suggestions made to underscores its relevance to the sector.

Keywords: Digital Pedagogies, Innovative Teaching Strategies, Multimedia Resources, Collaborative Tools.

Introduction

Education is a social good which requires adequate teaching strategies to achieve. According to Ibeh (2008) there is no gainsaying in the fact that education is an indispensable tool for the achievement of national development as epitomized in its pervasive nature in all ramifications of the development of any given society. On this basis, teaching strategies are seen as a very essential tool at the disposal of the educators to convey principles as well as material gains to the learners, so as to achieve set instructional goals that will establish an organised or strong educational relationship between the learners and the institution. It also depicts, the approaches, tactics, methods, steps, means, styles, techniques or procedures through which stated learning goals are attained; these teaching strategies are in one way or the other very important in aiding positive outcomes in the process of learning (Eya,2001, Ibeh, 2008, Ayua,2017 & Onajite,2022). Accordingly, Canuel in Onajite (2022) pointed out that teaching strategies enable the learners in some particular ways to improve on their cognitions, explanation of concepts, collaborative learning process, rational to solve pressing problems at the micro level and active learning process among others. This position underscores teaching strategies as an act that cannot be overemphasized in the students' daily learning activities. This reason, presented a strong support for effective approaches to the teaching process in every stage of the Nigerian school system. This is to enable quality education that is relevant to the economic needs of the Nigerian system. Besides, this assertion also implies that all teaching processes are intended to be learner-centered instead of



teacher-centered, practical rather than theoretical, activity-based, experiential and one that is backed up with the latest information technology system (ITS) (Onajite, 2022). In the light of the above, teacher behaviour in the process should be appropriate, timely and well planned to deliver learning experiences (Ashwani, 2022). From the above insights, it is crystal clear to note that the educational system in contemporary society is evolving rapidly as a result of various digital learning innovations which are complementary to the traditional learning strategies. Besides, the traditional teaching strategies are perceived as obsolete and one that is not yielding the much-expected results in a contemporary teaching-learning process.

On the other hand, the above perception is as an upshot of a nation grappling with a lot of challenges in its educational sector, that may not allow innovative teaching strategies to be imperative. The presence of overcrowded classrooms, limited resources, and disparities in access to quality education, traditional teaching methods which often fall short to meet the needs of learners is really a setback to the sector, especially in the act of teaching children in schools. However, the advent of digital pedagogies presented a promising track for the revolution of teaching approaches. This change intends to enhance learning outcomes across the Nigerian educational sector. In a related view, Toktarova and Semenova (2020), asserted that it is a transformed educational strategy with main content characteristics of the categories used. Accordingly, digital pedagogy is a branch of pedagogical science that reveals the essence and regularities of digital education. The role of 'digitalized' educational processes in personal growth, national development and as a means of improving individuals' effectiveness in the task of building digital economy cannot be overemphasized. As a practice, it describes the arrangement of an educational process in the new conditions of a bifurcated reality where computer-based technologies are included in the act of learning to enrich the process of building knowledge, skills, attitudes, abilities or behaviour for the solving of local problems. It is also a process that provides quality educational programmes particularly organised with purposeful and systematic activity to assist human development (Toktarova & Semenova, 2020). For this reason, scholars have advocated for the improvement of state of the arts such as smart classrooms, virtually reality, marker space and digital libraries among others in the learning process as a promising pathway to address the challenges in the system. Therefore, the main thrust of this paper is to provide a strong foundation through the explanatory approach for the understanding of imperativeness of digital pedagogies as an innovative strategy for enhancing teaching-learning process in the Nigerian context.

Understanding Digital Pedagogies

Digital pedagogy is seen as a cutting-edge innovation and as an aspect of pedagogy that studies the design, implementation and evaluation of educational situations comprising a significant component of digital technologies, as well as the necessary conditions for their implementation. It is the synchronous and asynchronous interactions of the virtual and mixed learning environments, learning management platforms and tools, digital educational resources, educational usage of various digital applications and tools, virtual assistants for learning and teaching, digital competences of teachers and educational policies for specific programmes (Olimpius.2021). It can also be viewed as the integration of portable electronic devices such as smartphones, laptops, tablets and so on, into the teaching process to enhance equal learning experiences. The pedagogical



approaches also leverage on other wide range of digital resources, such as, multimedia content, interactive learning platforms, educational apps, and collaborative learning instruments, to create an attractive personalized learning environment. The multimedia content is the integration of varieties of techniques such as videos, animations, texts, audio, images, animation, audio simulations, interactive features, gamification and discussion forums among others to positively engage learners. The techniques can be applied to learners of all ages and levels in the education system. The interactive learning platforms are the subsector of the multimedia content and are digitally available to provide rich learning experiences to learners. Interactive learning platforms are very helpful for various learning reasons. It is a process of learning that promotes personal pace to learning, collaborative, blended and gamified processes of learning with additional materials to the learners (Nwaocha & Adebayo, 2013).

More so, these innovative technologies in the educational sector have assisted in liberalizing and improving both the cooperative and personalized learning environments. Cooperative learning process has to do with individuals working together to share knowledge, experiences or information for the achievement of learning goals. Personalized learning environment on the other hand, is a type of learning procedure which is achievable through the application of computer related devices. It depicts a learning process that promote self-directed learning, competency-based progress or project-based learning experiences. According to Mohammed, Nouha and Tarik (2021) personalized learning environment is a system or a set of instruments which always help the learners to build their path to learning process. The process allows the learner to control where, what, when and how to learn using the available resources at disposal. This also implies that personal learning environment is an idea that is first of all integrated with pressures or movements such as lifelong learning, informal learning, learning styles, new approaches to assessment, cognitive tools based on success of innovative technologies in ubiquitous computing system. Thus, the fundamental objective of digital pedagogies as further noted by Mohammed, Nouha and Tarik (2021) is to generate change from precipitated to active learning methodologies. Consequently, this change in the approach of teaching -learning has dampens the use of traditional rote learning method as a teacher- centered instruction, but reassures active students' engagement through practical-based learning to problems solving experiences. Therefore, by leveraging this technology, educators can facilitate interactive discussions, simulations, and virtual field trips that can arouse critical thinking and creativity among students.

Implications of Digital Pedagogies to the Teaching Strategies in Nigeria

The digital pedagogies as an immense educational tool possess the capacity to transform the teaching strategies in developing nations such as Nigeria. It underpins the process of learning with computer related gadgets such as laptop, iPad, android phones and internet connectivity with a wider audience of learners. It is also a learning process that bridges the gap between the geographical locations of various learners at the same time. The various existing interactive education platforms, such as learning management systems and other educational websites, provide learners with access to enriching learning experiences (Akujieze 2024). Besides, the process enables educators to personalize instruction in line with the quest to meet students' learning needs. The digital act of learning such as the adaptive learning systems, data analytics, and artificial intelligence algorithms have further assisted in analyzing data of students' performance to enable



interventions on their pathways to learning. According to Faloye (2022), the implications of digital pedagogies offers a realignment of instructional strategies from teacher-based to technological based instructions in tandem with the fourth sustainable development goal that encourages the development in various subject areas. It is equally an avenue for the enlightenment of the state on the advantages of funding and appreciably supporting forms of innovative way of learning to achieve transformation. For the fact that the strategy clearly supports joint tasks, rotating roles, reflective thinking, promoting learner's self-management, supporting metacognition, fostering multiple perspectives, and scaffolding learning, does not simply mean that efficacy is possible without proper teacher planning skill to organise and facilitate the process (Akujieze 2024).

Challenges and Opportunities of Digital pedagogies

Presumably, the use of digital pedagogies in the Nigerian education sector is not without real challenges. Accordingly, these challenges are unreliable electricity supply, limited internet connectivity, lack of innovative capacity and inadequate learning span in the process. Other areas of challenges include the rate of poverty, illiteracy and poor attitude towards computer maintenance for real innovative pedagogical approaches in schools (Ogwazu, 2023). Hofmann in Ogwazu (2023) noted that one of the major challenges of this innovation is the lack of specification on how the learners can effectively apply the model in the process of learning without glitches. Besides, Gordon and Gabriel (2021) argued that the corresponding challenges of digital pedagogies seemingly follow the benefits of the process. In most cases, there is shortage of support staff, lack of commitment, paucity of funds, dearth of critical infrastructure such as the hi-tech instructional tools and internet broadband in designated places of learning. Also, given the fact that the digital process depends heavily on electricity which is in a derelicted situation in Nigeria poses another significant challenge to the smooth implantation of the systems. Thus, Andersson and Gronlund in Gordon and Gabriel (2021), considered four-dimensions to the challenges of automated learning systems. They are the individual, technological, content and contextual issues. The individual dimension represents a lack of personal responsibility or self-discipline required to sustain motivation in a digital learning engagement. In addition, individual issues are also related to poor study habits, isolation in a learning process, absence of peer grouping learning engagements and, lack of rapid response by teachers to address issues that may arise in the process, especially within the asynchronous contexts, and instructional contents that are standardized which are likely to reduce the ability to improvise. Other areas that underscores the tenacity of these challenges to the process include; the learner difficulties to navigate the digital process, confusing instructional learning tasks; irrelevant instructional materials/resources and technical hitches (Gordon & Gabriel, 2021). Besides, it is further identified that the cost of affording a personal computer (PC), technophobia, lack of adequate entrenchment of information technology/computer education knowledge in the curriculum at the basic and secondary education levels as well as attitude of students among others, are contributors to the challenges (Ogwazu,2023)

Also, a closer look at the integration of this innovative ideology in the curriculum and instructional strategies poses further significant challenges to time limit, resources, and technical support. Besides, the teachers' attitude towards the scheme to enhance practical skill in the classroom instead of the traditional teaching approach is another serious issue of concern. Thus, these enumerated factors constituted a serious challenge to the development of learners' need in terms

of effective communication, critical thinking, innovative, and problem-solving skills among others in the process (Nanjundaswamy et al, 2021).

However, amidst these challenges are opportunities for collaboration and innovation to improve the educational system from its foundation. Therefore, to facilitate the process requires the gradual development of digital infrastructure and other educational resources. There is also the need for a strong partnership between government agencies, educational institutions, technology providers, and civil society organisations. This is because the initiatives will encourage indigenous digital content that is culturally relevant to pedagogical learning experiences in the Nigerian context. Against this backdrop, Gordon and Gabriel (2021) asserted the prospects of digital learning strategy as a robust platform for human capacity building in both the formal and informal sectors. Similarly, it is an opportunity for the enhancement of horizon of learning that is capable of providing more access to education for all, irrespective of location, age, sex, or status. Likewise, it also offers professional opportunities to the digital content design and development that is suitable for each level of the learners. It is also useful in throwing up opportunities for capacity building which is necessary for the education and training industry as a frontier of knowledge (Gordon & Gabriel, 2021).

Conclusion

As a transformative teaching and learning approach, the digital pedagogies offer educators in Nigeria, with the contemporary opportunities to create engaging, personalized, and inclusive learning environments. Therefore, the full implementation of this technological innovation would lead to the forefront of overcoming infrastructure deficits in the Nigerian educational sector. Therefore, leveraging on the abundant potentials of digital pedagogies in Nigeria will likewise harness educational outcomes to foster critical thinking skills and empowerment to thrive in this digital era. Hence, there is a need for a continuous quest for educational development using available technologies as a beacon of hope for the progress of the nation.

Suggestions

Based on the above insights, the following steps are suggested:

1. There should be an improved infrastructural development across the school system to encourage interactive learning processes at all levels.
2. There should be improved periodic capacity building for both the teachers and the support staff by government and other relevant stakeholders in the education sector to adequately address the issue of skill improvement in line with best practices to enhance the learner's motivation.
3. Adequate platforms of technical staff should be created by schools to address technical glitches across the system.
4. There should be effective collaboration by government and other stakeholders to tackle the problems of source of power supply in the school system.
5. Government should invest adequately in the educational sector to attain the set goals of national development.



References

- Akujieze, M.O. (2024). The role of digital pedagogy in enhancing teacher education. *Open Access Journal of Education and Language Studies*, 1(3), 1-8. Retrieved from [www. OAJELS.MS.ID.555565.pdf](http://www.OAJELS.MS.ID.555565.pdf).
- Ashwani, K. (2022). Teaching methods, teaching strategies, teaching techniques and teaching approach. *International Journal of Advanced Research in Science, Communication and Technology*. 2 (2).503-508. Retrieved from www.ijarsct.co.in.
- Ayua, G. A. (2017). Effective teaching strategies. A paper delivered on the occasion of orientation and refresher workshop for teachers of vertex nursery and primary school, Makurdi, Benue State, Nigeria on the 7th of September 2017. Retrieved on 19/4/2024 from <https://www.researchgate.net/publication/337946302>.
- Eya, L.O. (2001). Methods of teaching in adult education programmes. In Eya, L.O,Ugwu, J.C & Alu, B.E.(eds).*Adult education: Its nature and purpose*
- Faloye, B.O. (2022). Sustainable digital pedagogy in language teacher education: perception of teachers in Ekiti State Government Colleges. *International Journal of English Language Teaching*. 10 (1).13-22. <https://doi.org/10.37745/ijelt.13>.
- Gordon, B. & Gabriel Job (2021). Benefits, challenges and prospects of integrating e-learning into Nigerian tertiary institutions: A mini review. *International Journal of Education and Development using Information and Communication Technology*.17(3), 6-18.
- Olimpius, I. (2021). Digital pedagogy. definition and conceptual area. *Journal of Digital Pedagogy*, 1 (1). 3-10. <https://doi.org/10.61071/JDP.0313>.
- Ogwazu, J.E. (2023). Impact of e-pedagogy and challenges in selected lower public primary schools in Lagos, Nigeria. *International Journal of Studies in Education*.19 (1), 46-58.
- Ibeh, A.E. (2008). *Theory and practice of adult education in Nigeria*. Port Harcourt: University of Port Harcourt press.
- Mohammed, O., Nouha, R. & Tarik, C. (2021). Overview of e-learning platforms for teaching and learning. *International Journal of Recent Contributions from Engineering Science and Information Technology*. Retrieved from <https://doi.org/10.3991/ijes.v9i1.2111>.
- Nanjundaswamy, C, Baskaran, S & Leela, M.H. (2021). Digital pedagogy for sustainable learning. *Shanlax International Journal of Education*. 9 (3), 179-185. DOI: <https://doi.org/10.34293/education.v9i3.3881>.
- Nwaocha, V & Adebayo, A.A. (2013). *Multimedia technology: A course guild for CIT742 of the National Open University of Nigeria*.
- Onajite, G. O. (2022.) Teaching strategies employed by teachers for improving students' learning in business education in secondary schools in Delta State. *British Journal of Education*, 10 (3), 85-100. Retrieved on 19/4/2024 from <https://www.eajournals.org/>
- Sujith, J. & Vibin, C. (2015). Use of educational apps in today's classroom. *International Conference on Management, Communication and Technology*,3(1), 34-39.
- Toktarova, V.I & Semenova, D.A. (2020). Digital pedagogy: analysis, requirements and experience of implementation. *Journal of Physics: Conference Series*. Retrieved from doi:10.1088/1742-6596/1691/1/012112.