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## Globalization And Adoption Of Virtual Classrooms In Nigeria Tertiary Institutions

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### Abstract

The world has fast become a global village with increased interconnectedness and interdependence among countries and economies involving exchange of goods, services, information, ideals as well as cultures and technologies across borders that are enabled by advancement in communication and technologies. This has shaped the Nigerian education system thereby influencing various aspects from curriculum development to policies and practices as well as exchange of educational ideas which have promoted digital literacy, critical thinking and cross-cultural competencies necessary for collaboration in a global workforce. Globalization embraces virtual classroom which enable educators to access and manage resources, lectures, assignments discussions digitally thereby facilitating learning. These virtual classrooms range from synchronous, asynchronous, blended, flipped classroom, massive open online courses, virtual laboratories and collaborative virtual classrooms which come with lots of advantages. The adoption of virtual classrooms in Nigerian tertiary institutions as a result of globalization is profound; shaping both the education landscape and the learning experiences of both the students and educators. The integration of virtual classroom and digital technology bring about technological advancement, education access and equality, alignment with global educational standards, flexibility and innovation as well as access to global teaching resources.

**Keywords:** Globalization, Adoption, Virtual Classrooms

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## **Introduction**

In recent decades, globalization has profoundly reshaped the landscape of education worldwide, prompting Nigerian tertiary institutions to adapt rapidly to new technological advancements. Globalization, a term frequently used in contemporary discourse, encompasses a wide range of interconnected processes that have profoundly reshaped the world in recent decades. While its historical roots extend back centuries, it was in the latter half of the 20th century that globalization gained momentum, driven by technological advancements, economic policies, and geopolitical shifts (Stiglitz, 2002). In simple terms, globalization combines together how people interact, share cultures, and use new technologies, which changes societies all over the world. Sociologist Anthony Giddens, in his important book "The Consequences of Modernity," explains that globalization has made the world feel smaller by speeding up communication and spreading cultures quickly and widely.

One of the most notable transformations facilitated by globalization is the widespread adoption of virtual classrooms. Defined as digital environments where learning occurs through online platforms, virtual classrooms have revolutionized traditional educational practices by transcending physical boundaries and enhancing accessibility (Daniel, 2016). Globalization, characterized by the interconnectedness of economies, cultures, and societies, has catalyzed the integration of virtual classrooms into Nigerian higher education systems. This integration is driven by the imperative to align with global educational trends and equip students with skills relevant to the digital age. As Nigeria positions itself within the global knowledge economy, the adoption of virtual classrooms represents a strategic response to meet the demands for flexible, technology-driven learning environments (UNESCO, 2020).

Furthermore, the COVID-19 pandemic highlighted the crucial role of virtual classrooms in maintaining educational continuity during emergencies. This period emphasized their effectiveness in minimizing disruptions to learning and providing robust solutions for remote education delivery. As a result, Nigerian tertiary institutions are increasingly embracing virtual classrooms not just to ensure academic continuity but also to promote educational fairness and inclusivity (Egbue & Long, 2012).

### **What Is Globalization?**

Globalization entails the movement of people, language, capital, goods, services, ideas, and more across the world. Steger (2017) describes globalization as the increased interconnectedness and interdependence among countries, societies, and economies worldwide, involving the exchange of goods, services, information, ideas, cultures, and technologies across borders, enabled by advancements in communication, transportation, and technology. At its core, globalization spans economic, political, social, cultural, educational, and technological dimensions, influencing various aspects of human life globally. Economic globalization integrates national economies through trade, investment, and capital flows, fostering global markets and supply chains (Rodrik, 2018).

Political globalization entails increased cooperation among governments and international organizations to address global issues like climate change, terrorism, and human rights (Held, 2016). Social globalization involves the spread of ideas, values,

norms, and lifestyles across societies, which can lead to either cultural homogenization or hybridization. Educational globalization refers to the increasing interconnectedness and integration of educational systems, practices, policies, and institutions across national borders. It includes the exchange of ideas, knowledge, resources, and best practices in education globally, driven by advancements in technology, communication, and mobility. Technological globalization encompasses the rapid dissemination of information and communication technologies (ICTs), enabling instant communication, collaboration, and access to information worldwide (Castells, 2001).

Globalization brings about both positive and negative consequences. It has fostered economic growth, poverty alleviation, and technological advancements, yet it has also exacerbated income inequality, promoted cultural uniformity, and contributed to environmental degradation (Bhagwati, 2004).

### **The relevance of Globalization in Education**

Globalization plays a crucial role in shaping contemporary education systems worldwide, influencing various aspects from curriculum development to educational policies and practices. This global phenomenon fosters interconnectedness among nations, facilitating the exchange of educational ideas, technologies, and best practices across borders. One significant relevance of globalization in education is its impact on curriculum development. As countries integrate into the global economy, there is a growing emphasis on equipping students with skills that are relevant on an international scale. This includes promoting digital literacy, critical thinking, and cross-cultural competencies necessary for collaboration in a globalized workforce (Marginson, 2012).

Furthermore, globalization encourages educational institutions to benchmark against international standards and adapt innovative teaching methods. This adaptation helps in improving educational quality and relevance to meet global challenges such as sustainable development and technological advancements (Marginson, 2016). Moreover, globalization facilitates the mobility of students and educators, leading to an increase in international student exchanges, collaborative research projects, and joint academic programs between institutions worldwide. These collaborations enhance cultural understanding, diversity in learning experiences, and contribute to the global knowledge pool (Altbach & Knight, 2007).

### **Concept of Virtual Classrooms**

Virtual classroom is described as a platform that enables educators to conduct live, interactive classes remotely, using features like video conferencing and collaborative tools (Hodges et al., 2020). It is an online system where educational resources, lectures, assignments, and discussions are managed and accessed digitally, facilitating flexible and accessible learning (UNESCO, 2020). The virtual classroom, according to Turoff (2007), is an online environment where individuals can participate in live training sessions without the need to travel. It allows students to attend lectures, engage in lab exercises, ask questions, and interact with teachers as they would in a traditional classroom, all from the convenience of their desktop or any location with internet and phone connectivity. This technology leverages advanced tools such as internet-based communication, video conferencing, and collaborative online platforms to facilitate synchronous learning experiences (Olibie, Ezoem, & Ekene, 2014). In other words, the virtual classroom can be viewed as classrooms that have the potential to partially or completely replace the traditional educational, evaluative, and administrative functions of a regular classroom. This is achieved by integrating

advanced computer and ICT technologies such as the internet, email, online chatting, websites, CD-ROMs, DVDs, teleconferencing, and video conferencing.

### **Types of Virtual Classroom in Tertiary Institutions**

Virtual classrooms in tertiary institutions have evolved to offer diverse learning environments. Some types of virtual classrooms are

**Synchronous Virtual Classrooms:** Synchronous virtual classrooms are online learning environments where teachers and students interact in real-time. These classrooms use digital tools and platforms to facilitate live lectures, discussions, and collaborative activities, mimicking the experience of traditional, in-person classrooms but conducted over the internet. (Hrastinski 2008). Students and instructors log in at scheduled times, enabling immediate communication and feedback through various means such as video conferencing, chat, and shared virtual whiteboards.

**Asynchronous Virtual Classrooms:** Asynchronous virtual classrooms are online learning environments where teaching and learning do not occur in real-time. Instead, students access course materials, complete assignments, and participate in discussions on their own schedules. This format offers flexibility, allowing learners to engage with the content at their convenience. Communication between instructors and students typically occurs through forums, emails, and pre-recorded video lectures, which can be accessed at any time.

**Blended Virtual Classrooms:** Blended virtual classrooms combine both synchronous and asynchronous learning approaches. In this hybrid model, some instructional activities occur in real-time (synchronously) through live online sessions, while others happen independently (asynchronously) through recorded lectures, readings, and assignment (Graham 2006). This approach leverages the strengths of both methods, providing flexibility for students to engage with material at their own pace while also benefiting from real-time interaction and feedback from instructors and peers.

**Flipped Classrooms:** Flipped classrooms are an instructional strategy and a type of blended learning that reverses the traditional learning environment. In this model, students first engage with new content at home through videos, readings, or other preparatory materials, typically asynchronously (Bergmann & Sams 2012). Classroom time is then used for engaging in interactive activities, problem-solving, and discussions under the guidance of the instructor. This approach aims to deepen understanding through active learning and allows instructors to provide more personalized support.

**Massive Open Online Courses (MOOCs):** Massive Open Online Courses (MOOCs) are online courses designed for large-scale participation and open access via the web. They are typically free and available to anyone with an internet connection. MOOCs offer a variety of subjects and are often provided by universities, educational institutions, and organization (Auley et al (2010)). They include course materials such as videos, readings, and problem sets, and often feature forums and peer-reviewed assignments to facilitate interaction among students and instructors.

**Virtual Laboratories:** Virtual laboratories are online simulation environments that allow students to conduct experiments and practice scientific procedures using digital

tools and software. These labs replicate the functions of physical laboratories, enabling students to explore and manipulate virtual equipment, perform experiments, and analyze data in a controlled, risk-free environment (De Jong et al 2013). Virtual laboratories are widely used in educational settings to enhance learning in fields such as chemistry, biology, physics, and engineering, offering accessibility and flexibility.

**Collaborative Virtual Classrooms:** Collaborative virtual classrooms are online learning environments where students work together in real-time or asynchronously to complete tasks, solve problems, and engage in discussions. Laal & Ghodsi (2012) note that these classrooms utilize digital tools and platforms that facilitate group work, such as video conferencing, shared documents, and discussion forums. The focus is on fostering interaction, teamwork, and collective problem-solving, helping students develop collaboration skills while deepening their understanding of the subject matter.

### **Advantages of Adopting Virtual Classroom**

Virtual classrooms offer numerous advantages that enhance the educational experience for both students and educators. These advantages according to Anekwe (2017) include:

- a. Virtual classrooms offer learners the flexibility to access educational experiences at their own pace, anytime and anywhere they choose.
- b. Virtual classrooms facilitate efficient class organization by categorizing operational documents, assignments, class notes, and other information for easy access and revision.
- c. Virtual classrooms enable learners to engage in educational activities 24 hours a day, seven days a week, without infringing upon their leisure time. This accessibility ensures continuous learning opportunities tailored to individual schedules and preferences.
- d. The virtual classroom system leverages the expertise of experienced personnel across various specialized areas, which is not feasible in traditional classroom settings.
- e. Virtual classrooms foster intellectual and social partnerships among students through technology. Students using technological tools develop leadership skills and enhance group cohesion, particularly beneficial in remote learning environments. Additionally, virtual classrooms help students hone communication skills essential for academic performance.
- f. Cost-effectiveness is a significant advantage of virtual classrooms. Students save money, time, and transportation costs by studying from home. This flexibility allows motivated students to manage their studies independently without the need to commute to school.
- g. Teachers benefit from the digital nature of virtual classrooms, as all work is conducted electronically and can be easily reused or accessed from various sources. This enhances teaching efficiency and resource management.
- h. The online features of virtual classrooms provide various advantages to students, including admissions information, course details, assignments and projects, testing and evaluation, grading and results, faculty interaction, guidance, and support for vocational and professional pathways.

### **Challenges of Adopting Virtual Classroom**

Adopting virtual classrooms in educational settings involves recognizing the transformative potential of digital learning environments while acknowledging the

obstacles that institutions and stakeholders must navigate. These challenges encompass technological, pedagogical, and organizational dimensions, each crucial in shaping the effectiveness and acceptance of virtual classrooms. From infrastructure limitations and digital literacy gaps to concerns over educational quality and personnel training, addressing these challenges is essential for harnessing the full benefits of online education. Hodges et al. (2020) identify the following as the challenges affecting the adoption of virtual classroom in tertiary institutions in Nigeria:

- a. **Flexibility and student responsibility:** The system's flexibility allows learners to study conveniently and adjust their schedules to suit their needs. However, this flexibility can be misused by young and immature students who may not effectively manage their time and responsibilities, potentially leading to underperformance in their academic pursuits.
- b. **Quality of organization and educational materials:** Virtual classrooms may suffer from poor organization and inadequate study materials, coupled with a lower quality of teaching staff. These deficiencies can undermine the educational experience and diminish the overall quality of learning in virtual classrooms.
- c. **Training needs for personnel:** Effective operation of a virtual classroom requires personnel, especially university professors, to be proficient in computer and internet functions. Lack of training in these areas can hinder teaching efficiency and curriculum effectiveness. Therefore, professional development and training for educators are essential to optimize teaching strategies and enhance the quality of education delivered online.
- d. **Lack of real classroom experience:** Virtual classrooms lack the real-time interaction and personal connection between teachers and students that traditional classrooms offer. This absence of face-to-face interactions can impact the warmth and effectiveness of teacher-student relationships.
- e. **Access and technological requirements:** Students sometimes face challenges when they enroll in online classes without having an email address or access to internet services. This lack of access prevents them from retrieving essential information for virtual classroom activities, hindering their ability to achieve learning objectives effectively.
- f. **Hardware and internet connectivity:** Effective participation in virtual classrooms requires robust hardware and a reliable broadband internet connection. However, some classrooms or computer labs may not meet the minimum specifications recommended for optimal use of virtual learning environments.

### **Impact of Globalization on Adoption of Virtual Classroom**

The impact of globalization on the adoption of virtual classrooms in Nigerian tertiary institutions is profound, shaping both the educational landscape and the learning experiences of students and educators alike. Globalization, characterized by the interconnectedness of economies, cultures, and societies, has accelerated the integration of digital technologies into education worldwide. In Nigeria, this integration is driven by several key factors:

#### **Technological Advancement**

Globalization has spurred rapid advancements in information and communication technologies (ICTs), making it easier and more cost-effective for Nigerian universities to adopt virtual classrooms. These technologies include high-speed internet, video

conferencing, and online collaboration tools, which enhance the delivery of educational content and facilitate interactive learning experiences (Ololube, 2016).

### **Educational Access and Equity**

Virtual classrooms have the potential to make education more accessible to a broader range of students, including those in remote and underserved areas. The ability to participate in classes from any location helps bridge the educational gap caused by geographical constraints (Adeoye, Adanikin, & Adanikin, 2020). By integrating global best practices, Nigerian institutions can enhance the quality of their education systems. Virtual classrooms help overcome geographical barriers and improve access to quality education in Nigeria. Students from remote areas or with limited mobility can now participate in classes, access resources, and interact with peers and instructors without the need for physical presence on campus.

### **Alignment with Global Educational Standards**

Tertiary institutions are increasingly aligning their educational practices with global standards and trends. Virtual classrooms enable these institutions to offer courses and programs that meet international benchmarks, preparing students for global job markets and enhancing their competitiveness on a global scale (Altbach & Knight, 2007). Embracing virtual classrooms helps Nigerian tertiary institutions stay in line with global educational trends and standards. This alignment ensures that Nigerian graduates are equipped with the digital skills needed for contemporary careers, making them competitive in the international job market (Akinyemi, 2017). By integrating global best practices, Nigerian institutions can enhance the quality of their education systems.

### **Flexibility and Innovation**

Globalization encourages Nigerian universities to innovate and adapt to changing educational needs. Virtual classrooms provide flexibility in learning schedules and formats, accommodating diverse student populations and catering to individual learning styles. This flexibility fosters innovation in teaching methods and curriculum design, promoting a more dynamic and responsive educational environment (Oye et al 2012). Virtual classrooms provide learners with the flexibility to access educational content at their convenience, allowing them to study at their own pace and from any location. This adaptability can be particularly beneficial for students who have other commitments, such as work or family responsibilities.

### **Cultural and Knowledge Exchange**

The adoption of virtual classrooms also involves cultural shifts in teaching and learning practices. Traditional Nigerian educational practices, which emphasize face-to-face interaction, are evolving to incorporate digital learning environments (Marginson, 2012). This cultural adaptation is crucial for the successful implementation of virtual classrooms. Virtual classrooms facilitate cultural exchange and collaboration among students and educators from different backgrounds and countries. This exchange of ideas, perspectives, and knowledge enriches the learning experience, promotes cultural understanding, and prepares students to thrive in a multicultural global society

### **Impact on Teachers adoption of Virtual Classrooms in Tertiary Institutions**

Globalization has significantly influenced teachers in Nigerian tertiary institutions to adopt virtual classrooms, bringing about various changes and challenges in their teaching practices. Here are some key ways globalization has impacted this adoption:

#### **Access to Global Teaching Resources**

Globalization has facilitated the exchange of educational resources and best practices across borders. Teachers in Nigerian tertiary institutions can now access a vast array of online teaching materials, courses, and educational technologies developed by educators worldwide (Ololube, 2016). This access helps them enhance their teaching methods and incorporate innovative tools into their virtual classrooms

#### **Professional Development and Training**

Globalization has increased the availability of professional development opportunities for teachers. Many international organizations and institutions offer online training programs and workshops that focus on digital literacy and effective online teaching strategies. These programs equip Nigerian teachers with the necessary skills to manage and deliver virtual classroom sessions effectively (Adeoye et al 2020).

#### **Collaborative Opportunities**

The interconnected nature of globalization has opened up opportunities for Nigerian teachers to collaborate with their counterparts in other countries. Okojie et al (2006) note that through virtual platforms, educators can participate in joint research projects, share teaching experiences, and develop cross-cultural educational initiatives. These collaborations enrich the teaching experience and foster a global perspective among teachers and students

#### **Pressure to Align with Global Standards**

Globalization has created a competitive environment in higher education, prompting Nigerian tertiary institutions to align their teaching practices with international standards. Teachers are under pressure to adopt virtual classrooms to ensure their students are equipped with digital skills and knowledge that meet global expectations. This alignment is essential for the institutions' reputation and for graduates' competitiveness in the global job market (Akinyemi, 2017).

#### **Challenges of Technological Adaptation**

While globalization promotes the adoption of virtual classrooms, it also highlights the challenges associated with technological adaptation. Many teachers may initially struggle with integrating digital tools into their teaching due to a lack of familiarity or resources. This challenge necessitates ongoing support and training to ensure teachers can effectively utilize virtual classroom technologies (UNESCO, 2020).

#### **Changing Pedagogical Approaches**

Hodges et al (2020) observe that globalization has influenced pedagogical approaches, encouraging a shift from traditional, lecture-based teaching to more interactive and student-centered methods. Virtual classrooms support these modern pedagogical approaches by enabling the use of multimedia, interactive discussions,

and collaborative learning activities. Teachers must adapt to these new methods to enhance student engagement and learning outcomes

### **Conclusion**

Globalization and the adoption of virtual classrooms in Nigerian tertiary institutions was examined in the discuss. Globalization has facilitated access to international resources, professional development opportunities, and collaborative networks, enhancing the quality of education provided. It has also necessitated the alignment of Nigerian educational practices with global standards, ensuring that graduates are competitive in the international job market. However, the shift towards virtual classrooms has also highlighted challenges, such as the need for technological adaptation, training for educators, and ensuring equitable access to technology across urban and rural areas. Despite these challenges, the adoption of virtual classrooms represents a strategic response to the demands of a globalized world, positioning Nigerian tertiary institutions to better serve their students and the broader society.

### **Suggestions**

1. The government and educational institutions should invest in robust technological infrastructure to support virtual classrooms. This includes reliable internet connectivity, up-to-date hardware, and software, particularly in rural and underserved areas.
2. Continuous professional development programs should be implemented to equip teachers with the necessary skills for effective online teaching. This training should cover digital literacy, the use of virtual classroom platforms, and innovative pedagogical approaches.
3. Educational policymakers should develop comprehensive policies that support the integration of virtual classrooms into the curriculum. These policies should address issues such as quality assurance, teacher training, and student support services.
4. Measures should be taken to ensure that all students have access to the necessary technology for participating in virtual classrooms. This could include providing affordable devices, subsidizing internet costs, and setting up community learning centers with internet access.
5. Institutions should encourage collaborative learning environments by facilitating online group projects, discussions, and peer interactions. This approach can enhance student engagement and foster a sense of community within virtual classrooms.
6. Efforts should be made to ensure that the content delivered through virtual classrooms is of high quality. This includes regularly updating course materials, utilizing multimedia resources, and incorporating feedback from students to improve the learning experience.
7. Regular monitoring and evaluation should be conducted to assess the effectiveness of virtual classrooms. This evaluation should consider student performance, teacher feedback, and technological challenges to identify areas for improvement and ensure the continuous enhancement of virtual learning environments.

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