DEVELOPMENT AND DEPLOYMENT OF A VIRTUAL CLASSROOM MANAGEMENT SYSTEM IN YOBE STATE, NIGERIA

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Abstract: The purpose of this research paper was to explain the development and deployment of a virtual classroom management system in yobe state education to facilitate interactive and engaging learning while also providing a safe environment. According to the paper, there is still a technology and qualified teacher shortage in the state's education sector, particularly in rural areas. The paper also mentioned establishing a virtual classroom in each of its three geographical zones, ensuring full virtual classroom system standards, and being classified as a "global village" full of dreams and sustainability. It has also aided in the transformation of a teaching environment into one that is learner-centered. Because students are actively participating in the learning processes in virtual classrooms, the teacher delegated authority to them to make decisions, plans, and other decisions.Furthermore, by learning from other experiences and identifying information and communication technology concerns, the yobe's education can be significantly improved. ICT has also altered many learning processes for intermediate and finished goods, as well as the relationship between students and teachers across states. Finally, the role of the virtual classroom in education is evident in our school, where we have ICT departments in the Ministry of High Education and Technology, Education resource center to facilitate proper consultation between schools and teachers located in different locations.

I INTRODUCTION

Nigeria views education as an instrument for national development, as evidenced by the National Policy on Education, which was revised in 1977, 1981, 1998, 2004, and 2005. Throughout the years, the Nigerian government's reform and development agenda has relied on education as a springboard for advancement and development. In the early days of modern education in Nigeria, the student-to-teacher and student-to-classroom ratios were both low. While an individual was considered educated if he or she could read and write in the previous millennium, an individual is considered educated in the current millennium if he or she can read, write, and

compute using computer tools and devices. As a result, information and communication technology (ICT) is a major tool that can be used to address the issues of the Nigerian education system (Akinyokun, 2010).It is clear that new ways of learning are some ofthe next challenges for every industry.E-learning refers to the use of various kinds of electronic media and information communication technology (ICT) in education E-learning is an inclusive technology that encompasses all form of education technology that electronically or technologically support learning and teaching. Depending on whether a particular aspect, component or delivery method is given emphasis, e-learning may be termed technology –enhanced learning (TEL), computer – based training (CBT), internet-based training (IBT), Web-based training (WBT), online education, virtual education, or digital education collaboration. Aydin,C.C.,& Tirkes, G. (2010)

E-learning including numerous types of media that deliver text, audio, images, animation and streaming video, and includes technology application and processes such as audio or video tape, satellite TV, CD-ROM, and computer-based learning as well as local intranet/extranet and Web-based learning. Arellano & Camera (2017) Information and communication systems, whether free-standing or based on either local networks or the internet in networked learning, underlay many e-learning processes. E-learning can occur in or out of classroom. It can be self-paced, asynchronous learning or may be instructor-led, synchronous learning. E-learning is suited to distance learning and flexible learning, but it can also be used in conjunction with face-face teaching, in which case the term blended learning is commonly used.It is commonly thought that new technologies make a big difference in education. Many proponents of e-learning believe that everyone must be equipped with basic knowledge of technology, as well as use it as a medium to reach educational goal.

II Literature Reviews
Virtual Class room

A virtual classroom platform enhances interactive and engaging learning while also providing a safe environment. Virtual classrooms, on the other hand, offer advantages that go beyond the in-person experience. The use of information technology tools to distribute or share knowledge among groups of learners will occur electronically rather than physically. Instructors can connect

the classroom prior to the lesson to prepare for the material.After class, instructors and participants can refer to this material as well as the session recording. Participants can use any device that can connect to the Internet to access virtual classroom platforms. Participants can consume content regardless of their geographic location thanks to this level of adaptability. Another significant advantage of virtual classroom software is the ability to track student progress. Data such as class attendance and student activity can be consulted by instructors. They can track a participant's progress using online polls and analytics. Finally, many virtual classroom platforms can be integrated into an existing learning management system at a school or company (LMS). Learning Tools Interoperability (LTI) is supported by advanced platforms Aldrich, (2005)the virtual classroom system and the learning management system can communicate with one another, resulting in a whole that is greater than the sum of its parts.

E-LEARNING

It stands for "electronic learning." It is an aspect of the virtual classroom concerned with the electronic sharing of knowledge through the use of text, video, the web, or any other IT toolsAlonso et al., (2005).E-learning refers to all forms of educational technology that support learning and teaching electronically or technologically. Arellano & Camera (2017). In addition to "electronic," Bernard Lusk believes that the letter "e" should be interpreted to mean "exciting, energetic, enthusiastic, emotional, extended, excellent, and educational" adelabu et al., (2014). This broad definition is concerned with new applications and developments, as well as learning and media psychology. E-learning has made data more accessible; data from e-learning can be found almost anywhere. There are numerous types of mobile devices available, as well as numerous ways in which these devices can benefit people all over the world. This can improve interactions between students and instructors in their classes, as well as provide students with tools they can use for a variety of purposes and independently to support problem-based actions. Tools to support collaborative and problem-solving activities are essential in e-learning approaches.

VIRTUAL CLASSROOMIN YOBE STATE

During Boko Haram attacks, the insurgents set fire to classrooms, dormitories, libraries, laboratories, and other structures. Because multibillion-naira facilities were destroyed, the

government was faced with the Herculean task of rebuilding at a high cost in the face of dwindling resources. Despite Yobe State's efforts to build new schools, renovate dilapidated ones, provide infrastructure materials to improve teachers' productivity and effectiveness, implement sustained free tuition, and recruit new teachers, there is still a technology and qualified teachers gap in the state's education sector, particularly in rural areas. "Qualified teachers play a key role in ensuring the quality of education, provided the pupil/qualified teacher ratio is considered an important determinant of learning outcomes," (UNESCO 1997).Students/pupils across the state have big dreams of becoming successful entrepreneurs and fulfilled professionals when they grow up, but that dream could be dashed if the education system is left to the state government's meager resources of virtual classrooms. The Yobe State Government has decided to establish an Education Appeal Fund to work with the people of the state and Yobe's state friends across the country to address the appalling situation in Yobe schools and give the state's education sector the much-needed boost. The appeal became necessary in order for the government to focus on increasing access to virtual classrooms and equity in basic and secondary education by establishing more schools, particularly for girls' children and people with disabilities; renovating existing structures; and building more classrooms with modern (ICT) virtual classroom facilities.

REVIEW OF LITERATURE

The Virtual Classroom is one of the most significant explosions brought about by the internet transformation. Although it cannot handle all functions of the institution, such as some courses that require practical skills and supervision, it does increase interaction between students and teachers, which leads to achievement of learning goals because students can access it anywhere and at any time (Aroyo et al. 2010).In recent years, the use of ICT for education has grown, particularly in the field of education. Technology has been discovered as a tool for promoting lifelong and global learning in education. It is also viewed as a replacement for traditional face-to-face teaching and learning, allowing for open distance learning in the context of continuing education.Aldrich, (2005)Electronic base training is also known as e-learning, according to Stephen et al. (2001), in which students learn the instructional content using electronic technology. As a result, e-learning provides a diverse set of learning strategies and technologies.

CD-ROMs, Video Conferencing, TV Lectures, Virtualclassrooms, zoom, and Google classes are examples of technology used in virtual classroom systems. Virtual classes have the potential to improve educational quality, create a more competitive workforce, increase literacy levels, and lower the cost of education training in institutions.However, according to Saleh Ibrahim Jauro&Suleiman Ayuba. (2022), the development of ICT has impacted every aspect of human life, and nearly every aspect of our lives now has a digital component. ICT has played a significant role in promoting social inclusion and a higher standard of living. Moreover, according to Salisu (2010), ICT can be used in education to improve literacy programs and provide learners with quality materials and access to information in their respective homes, workplaces, and public libraries.According to Charlie et al. (2010), ICTs are comprised of a wide range of product and service technologies, including computer hardware, software, and services, as well as several telecommunications functions, including wired or wireless, satellite, and wireless products and services. The rapid spread of ICT has resulted in significant changes in the creation of goods and services, as well as how and where they are produced, how they are brought to market, and how they are distributed to consumers.According to Aduwa-Ogiegbaen & Iyamu (2005), more than 90% of Nigerian public schools do not have computers in their classrooms. This means that in most Nigerian secondary schools, the chalkboard and textbooks continue to dominate classroom activities. According to Akuiolu & Olibie (2007), ICT facilities include phones, projectors, fax machines, video conferencing equipment, and electronic whiteboards. These resources should be made available because they have a significant impact on teaching and learning. These may be critical factors in improving educational outcomes. Many young people are technologically literate when it comes to social networking and using mobile technologies as everyday tools, but they may be neophytes when it comes to understanding how to use them in purposeful and educationally oriented ways (Edyburn, 2000).

RECOMMENDATIONS

Yobe state public schools should have access to a prototype web-based hybrid Virtual Classroom System (VCS) for teaching and learning in a school setting, complete with real-time audio and video, a whiteboard, application sharing, hand raising, and a mobile messaging system.

A facilitator and instructor guide will be developed by Yobe State Education trust fund and yobe state appeal fund. If you plan to use facilitators or instructors, you should create a guide for them to use to moderate the virtual classroom training experience. Be as specific as possible so that they have a step-by-step guide for how to conduct each virtual training session, their role, and what the employees should ultimately gain from the overall training experience. They can conduct virtual training sessions without the assistance of an e-learning professional if you create an effective and thorough guide. Include expectations for the facilitators, such as a schedule outlining their preparation and class hours, as well as an outline of the training activities.

CONCLUSION

There is enormous potential for yobe state education to fully exploit the deployment and establishment of a virtual classroom across three geographical locations (zonal A, B and C). This technology has the potential to propel the Yobe state education sector forward. The scope and extent of transformation in schools today are both exciting and frightening, especially as we consider how we will manage the many streams of technological innovations pouring into our schools and networked information world.

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