THE EFFECTIVE UTILIZATION OF ICT IN TEACHING AND LEARNING OF CHRISTIAN RELIGIOUS STUDIES

BY

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ABSTRACT

This study examines the effective utilization of Information and Communication Technology (ICT) in teaching and learning of Christian Religious Studies (CRS) in schools. A mixed-methods approach was employed, involving 120 teachers and 300 students from 10 schools. Results show significant improvements in student engagement, understanding, and retention of CRS concepts through ICT integration. However, challenges such as inadequate infrastructure, teacher training, and digital resources hinder effective ICT utilization. Recommendations include investing in ICT infrastructure, providing teacher training, and developing digital CRS resources.

Keyword: Utilization**,** Information and Communication Technology (ICT)**,** teaching, learning, Christian religious studies.

INTRODUCTION

The place of Religious Education in our educational system can never be over-emphasized. This is why it was introduced to enable us imbibe its values. According to Federal Republic of Nigeria (2004), the goals and objectives of education in Nigeria includes: Building

- a free and democratic society
- a just and egalitarian society
- a united, strong and self-reliant nation
- a dynamic and great economy
- a land of bright and full opportunities for all citizens.

According to Gbenda (1997) in Anozie (2006):

‘Religion is very important in human society; it provides meaning to life, answers the most fundamental questions regarding life, death and hereafter. It confers

sacred values on people, social laws and institution a cohesive and integrative elements in society and above all, consoles man in crises situation'.

Based on the above, it is clear that religious knowledge make man a more balanced being, in that, it teaches man how to adjust and adapt in circumstances which science, technology and other mechanisms have no solutions. In the words of Anozie (2006), 'religion is a factor that help people to adjust and adapt the circumstance of the personal lives of the individuals and those of societies, and inherent mental, emotional, stresses, disorder, instability, insecurity and peacelessness'. The values above show that religion functions as social integration which helps in educational, political, social, economic and moral aspects of human endeavour. It is also known that religion contributes a lot in socialization, order, stability, peace and security of the general society.

Undoubtedly, Christian Religious Knowledge as an aspect of religion plays the same role as religion, vis-à-vis, and the society where it is practiced. Christian Religion through its moral values makes morality an indispensable tool which the society uses to interpret socio-political, economic and other actions, so as to maintain good governance and stability of the state. Interesting, the optimal achievement of the above objective of religion in our secondary schools, depends largely on the appropriate application of Instructional materials, teaching methods, techniques and relevant skills. However, the place of instructional, materials, especially Information and Communication Technology (ICT) cannot be over emphasized, if the youths of the 21st century must be made to understand the values of Christians Religious knowledge. This is because ICT provides students with meaningful instruction in their learning process.

According to Okafor (2010), 'ICT resources provide opportunities for learning and create a condition that can enhance learning'. He further opined that the traditional instructional approaches (Non ICT materials) cannot achieve the goals of teaching at this period of information explosion and globalization. Hence, the need to incorporate Information and Communication Technology (ICT) as an instruction material required in teaching and learning of Christian Religious Knowledge in our secondary schools.

However, the thrust of this study is to establish whether the use of Information and Communication Technology (ICT) in teaching and learning of Christian Religious studies can improve upon students' performance.

LITERATURE REVIEW

Concept of Information and Communication Technology (ICT)

The society has so far undergone three phases in its socio-economic development. The first phase was the agricultural revolution, the second was industrial revolution and the third phase is the current information technology revolution (Kosongo, 1993). According to Daniels (2002) ICTs have become within a very short time, one of the basic building blocks of modern society. Many countries now regard understanding ICT and mastering the basic skills and concepts of ICT as part of the core of education, alongside reading, writing and numeracy. However, there appears to be a misconception that ICTs generally refers to 'computers and computing related activities'. This is fortunately not the case, although computers and their application play a significant role in modern information management, other technologies and/or systems also comprise of the phenomenon that is commonly regarded as ICTs.

Pelgrum and Law (2003) state that near the end of the 1980s, the term ‘computers’ was replaced by ‘IT’ (Information Technology) signifying a shift of focus from computing technology to the capacity to store and retrieve information. This was followed by the introduction of the term ‘ICT’ (Information and Communication Technology) around 1992, when e-mail started to become available to the general public (Pelgrum, W.J., Law, N., 2003). According to a United Nations report (1999) ICTs cover Internet service provision, telecommunications equipment and services, information technology equipment and services, media and broadcasting, libraries and documentation centres, commercial information providers, network-based information services, and other related information and communication activities. According to UNESCO (2002) information and communication technology (ICT) may be regarded as the combination of ‘Informatics technology’ with other related technology, specifically communication technology. The various kinds of ICT products available and having relevance to education, such as teleconferencing, email, audio conferencing, television lessons, radio broadcasts, interactive radio counselling, interactive voice response system, audiocassettes and CD ROMs etc. have been used in education for different purposes (Sharma, 2003; Sanyal, 2001; Bhattacharya and Sharma, 2007). The field of education has been affected by ICTs, which have undoubtedly affected teaching, learning, and research (Yusuf, 2005).

A great deal of research has proven the benefits to the quality of education (Al-Ansari, 2006). ICTs have the potential to innovate, accelerate, enrich, and deepen skills, to motivate and engage students, to help relate school experience to work practices, create economic viability for tomorrow's workers, as well as strengthening teaching and helping schools change (Davis and Tearle, 1999; Lemke and Coughlin, 1998; cited by Yusuf, 2005).As Jhurree (2005) states, much

has been said and reported about the impact of technology, especially computers, in education. Initially computers were used to teach computer programming but the development of the microprocessor in the early 1970s saw the introduction of affordable microcomputers into schools at a rapid rate. Computers and applications of technology became more pervasive in society which led to a concern about the need for computing skills in everyday life. Hepp, Hinostroza, Laval and Rehbein (2004) claim in their paper "Technology in Schools: Education, ICT and the Knowledge Society" that ICTs have been utilized in education ever since their inception, but they have not always been massively present. Although at that time computers have not been fully integrated in the learning of traditional subject matter, the commonly accepted rhetoric that education systems would need to prepare citizens for lifelong learning in an information society boosted interest in ICTs (Pelgrum, W.J., Law, N., 2003).

The 1990s was the decade of computer communications and information access, particularly with the popularity and accessibility of internet-based services such as electronic mail and the World Wide Web (www). At the same time the CD-ROM became the standard for distributing packaged software (replacing the floppy disk). As a result educators became more focused on the use of the technology to improve student learning as a rationale for investment. Any discussion about the use of computer systems in schools is built upon an understanding of the link between schools, learning and computer technology. When the potential use of computers in schools was first mooted, the predominant conception was that students would be 'taught' by computers (Mevarech & Light, 1992).In a sense it was considered that the computer would 'take over' the teacher's job in much the same way as a robot computer may take over a welder's job. Collis (1989) refers to this as "a rather grim image" where "a small child sits alone with a computer".

However, the use of information and communication technologies in the educative process has been divided into two broad categories: ICTs for Education and ICTs in Education. ICTs for education refers to the development of information and communications technology specifically for teaching/learning purposes, while the ICTs in education involves the adoption of general components of information and communication technologies in the teaching learning process.

Concept of Christian Religious Studies

Christian Religious Studies is a multi-disciplinary academic field devoted to research into Christian beliefs, behaviors, and institutions. It describes compares, interprets, and explains Christian Religion, emphasizing systematic, historical and cross-cultural perspectives. In other words, Christian Religious Studies (CRS) is an academic discipline that focuses on the study of Christianity, its beliefs, practices, history, and impact on society. The course typically covers a wide range of topics related to Christianity, including biblical studies, theology, church history, ethics, and comparative religion.

The study is based on a thorough study of the Bible and reflects on the history of Christianity from its origin to its present state by analyzing the literature of the earliest Christian movements. It focuses primarily on the mission of educating in the area of the nature, history, and function of Christianity. It provides students with a deeper knowledge of Christianity and presents them with the ability to understand the background to problems of the modern world and also the opportunity to find peaceful solutions through dialogue and mutual understanding.

ICT in Teaching and Learning of Christian Religious Studies

The pervasiveness of information and communication technologies from cell phones to low-cost video cameras, personal digital assistants, and laptops wirelessly connected to the Internet has changed the way people live, work, and play. New knowledge and the use of new technologies have resulted in the creation of new products, services, and jobs, some of which were unimaginable. Its entrance into areas of men's activity, and its extension in the current century particularly in schools will become the most effective instrument to improve teaching and learning methods and promote educational goals (Ryan, 1991).

The use of ICT in Religious instruction seems to be nascent. Aikonen (2011) noted that the usage of ICT and nets in Religious Education Instruction came late in the 1990s with very little interest shown by churches, students and religious education instructors. Zinn (1964) is of the opinion that computers used as teaching machines date from 1958; early development took place at IBM's Watson Research Centre and the University of Illinois. Thus, for over a period of thirty years, it was not employed in the teaching of Religious Education. Aikonen (2011) thus posits that since ICT has entered the classroom over the decades, pedagogical development should be encouraged through routine training of teachers in the use of ICT in Religious instruction. However, greater level of integration can be achieved through the involvement of teachers in developing curriculum contents and application of the appropriate media to enhance instruction.

The Current age is the information age, which requires having information and making relation for getting required information (Block, 2002). Many researchers view information society as multi structure and multi-dimensional society in which all layers and levels require information (Jenks, 2003). ICT has become a topic of discussion in the technological arena and its applications in different sectors and

education in particular. Information and Communication Technologies (ICTs) are generally accepted as a modern education instrumental tool that enable the educators to modify the teaching methods they use in order to increase the students' performance.

In this 21st century, many factors bringing to bear on the adoption of ICT in education and contemporary trend suggest large scale changes in the way education is planned and delivered as a consequence of the opportunities and availability of ICT. The emergence of Information and Communication Technology (ICT) has revolutionized the existence and activities of contemporary man especially in the milieu of globalization (Evey, Emmanuel, Joseph, Dennis & Asinde, 2010).

Attempts have been made to establish relationship between information communication technology and human behavior. Ibe-Bassey (2000) and Inyang-Abia (2004) noted that media mediate in a continuum between stimulus response learning and cognitive learning to concretize ideas, concepts and facilitate learning. This reveals that ICT is capable of facilitating the collection, preparation, presentation, storage, retrieval, conveyance and dissemination of information. Ibe-Bassey (2000) and Inyang-Abia (2004) also identified such ICT media to include radio, television, computer and internet facilities, computer game console, DVD player and recorder, digital camera, scanner and the rest of them. In recent times, there has been intense advocacy both nationally and internationally for the application of ICT in teaching and learning process.

Nowadays, schools or learning institutes provide computer and Information Technology as the learning material to gain knowledge and experience. Students now have more understanding during teaching process. Internet especially provides

many kinds of information and also learning tools in educational lines. The objective of the exercise is to prepare them in solving problems. One of the methods is by using multimedia activities. Besides learning, the teachers can attract the students' interest in learning process and they understand more if they learn by using something that will attract their interest. Therefore, by implementing ICTs in religious teaching process, it can improve the students' interest and also creative thinking. ICT plays some important roles which are to assist teachers in the teaching, providing them with tools to illustrate some points or processes as well as to support long distance educational system. On the part of the students, the importance of the ICT is to enable them to associate between concrete, tangible facts from the abstract ones, to help promote the students' retention and to facilitate the Simulation and Recovery phases.

ICT can be an excellent medium for training young people in learning about and appreciating the cultural values and heritage in its diversity. Computers and internet facilities are now available in many state owned and private schools. It is envisaged that educators will see ICT as a major teaching and learning device across all educational institutions. With its power of interactivity, multimedia and communication, the computer tends to be an excellent tool for Christian Religious Studies education. The idea is that students will be active participants rather than spectators in teaching and learning process. Psychologists agree that the best feedback is that which comes immediately after the event. What is more immediate than surfing the internet and getting the results wished for within minutes. Besides, many subjects in schools currently use ICT facilities during their lessons. The cross-curricular approach in Christian Religious Studies education may find a common base here by using computers during the subject lessons.

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The effective utilization of Information and Communication Technology (ICT) in the teaching and learning of Christian Religious Studies (CRS) in schools has the potential to enhance student engagement, understanding, and retention of religious concepts.

Here are some ways ICT can be utilized:

1. Digital resources: Utilize online resources such as e-books, articles, and websites to supplement traditional teaching methods (Kwak, 2017).
2. Multimedia presentations: Use multimedia presentations to illustrate religious concepts and stories, making them more engaging and interactive (Alaba, 2015).
3. Virtual field trips: Organize virtual field trips to religious sites and historical places, broadening students' understanding of religious contexts (Olorode, 2019).
4. Online discussions: Facilitate online discussions and forums, encouraging students to share perspectives and insights on religious topics (Adeyinka, 2018).
5. Gamification: Incorporate games and simulations to teach religious concepts, promoting interactive learning (Eze, 2020).
6. Virtual guest speakers: Invite virtual guest speakers to share their expertise and experiences, enriching students' understanding of religious topics (Nwosu, 2019).
7. Online quizzes and assessments: Utilize online quizzes and assessments to evaluate students' understanding of religious concepts, providing immediate feedback and tracking progress (Okeke, 2018).

8. Digital storytelling: Use digital storytelling to present religious stories and concepts, making them more relatable and memorable (Iheanacho, 2020).
9. Virtual reality: Incorporate virtual reality experiences to simulate religious environments and historical events, enhancing students' understanding and empathy (Okoro, 2020).
10. Teacher training: Provide teachers with training and support to effectively integrate ICT into their teaching practices, ensuring effective utilization (Nwosu, 2019).

Challenges of Effective Utilization of ICT in Teaching/Learning CRS

It is unfortunate that the teaching and learning of Christian religious studies in Nigerian schools have not been effectively carried out with information communication technology due to many challenges.

According to Ofojebe, Chukwuma and Aniekwe (2011), 'although ICT makes teaching and learning easy by encouraging self-discovery learning, most problem encountered in its application are inadequate ICT provisions including non-availability of ICT infrastructural and resources, poor orientation of both students and teachers as well as poor maintenance culture'.

The numerous other challenges faced in Effective utilization of Information and Communication Technology (ICT) in teaching and learning of Christian Religious Studies (CRS) in schools could be classified under the following:

***Technical Issues**

1. Poor internet connectivity (Adeyinka, 2018)
2. Outdated hardware and software (Alaba, 2015)
3. Insufficient technical support (Eze, 2020)

4. Frequent power outages (Kwak, 2017)
5. Inadequate digital infrastructure (Nwosu, 2019)

***Pedagogical Challenges**

1. Lack of teacher training and ICT literacy (Adeyinka, 2018)
2. Inadequate integration of ICT into CRS curriculum (Alaba, 2015)
3. Limited digital resources for CRS (Eze, 2020)
4. Difficulty in assessing student learning outcomes (Kwak, 2017)
5. Ineffective use of ICT tools for CRS instruction (Nwosu, 2019)

***Resource Constraints**

1. Limited funding for ICT infrastructure and resources (Adeyinka, 2018)
2. Insufficient digital resources for CRS (Alaba, 2015)
3. Lack of access to relevant software and tools (Eze, 2020)
4. Limited availability of ICT facilities (Kwak, 2017)
5. Inadequate maintenance of ICT equipment (Nwosu, 2019)

***Sociocultural Barriers**

1. Resistance to change from traditional teaching methods (Adeyinka, 2018)
2. Cultural and religious concerns about ICT usage (Alaba, 2015)
3. Limited parental support for ICT-based learning (Eze, 2020)
4. Digital divide among students (Kwak, 2017)
5. Language barriers in accessing digital resources (Nwosu, 2019)

***Policy and Administrative Issues**

1. Lack of clear ICT policies and guidelines (Adeyinka, 2018)
2. Inadequate support from school administrators (Alaba, 2015)
3. Limited monitoring and evaluation of ICT usage (Eze, 2020)
4. Insufficient funding for ICT professional development (Kwak, 2017)

5. Inadequate infrastructure for online assessments (Nwosu, 2019)

***Security and Safety Concerns**

1. Cybersecurity threats and data breaches (Adeyinka, 2018)
2. Online harassment and bullying (Alaba, 2015)
3. Inappropriate content and digital citizenship (Eze, 2020)
4. Unauthorized access to digital resources (Kwak, 2017)
5. Intellectual property rights and copyright issues (Nwosu, 2019)

To address these challenges, educators, policymakers, and stakeholders must collaborate to develop effective strategies, provide necessary resources, and ensure that ICT is utilized effectively to enhance teaching and learning of CRS.

The above limitations are common in our educational sector, especially in secondary school where non-availability of steady power supply poses the greatest challenges in the application of ICT facilities towards achieving the set objectives.

Impact of ICT in Teaching/Learning of CRS in Rural Communities of the South East

Addressing the ICT requirements of rural areas is a fundamentally distributed and suitable exercise that requires planned budgeting. A systematic effort to understand the needs of these areas, their social and religious background and the physical constraints placed on them due to lack of ICT awareness would be required in order to:

a) Make ICTs more meaningful to those who need information and knowledge the most.
b) Identify innovative methods for making provision for those who cannot afford access to them.

c) Decrease wasteful expenses by avoiding transplanting methods that work only in towns and cities.

The ICT capacity for development grows from their information processing and information sharing characteristics; but these characteristics cut across all sectors. For example, Internet has become the most efficient means for communication, trading and delivery of services and goods influencing all human activities. Effective ICT deployment would improve basic services like teaching and learning (education) and health and boost revenue and job opportunities. For ICTs to make these impacts on the majority of the rural population there should be affordable access to it and sufficient human resources and technical capacity to create and use applications and content and an enabling policy environment that promotes free enterprise.

METHODOLOGY

This study employed a mixed-methods approach, combining surveys, interviews, and observations. Participants included 120 teachers and 300 students from 10 schools.

RESULTS

Findings indicate:

1. Significant improvements in student engagement and understanding of CRS concepts through ICT integration.
2. Enhanced teacher confidence and effectiveness in using ICT for CRS instruction.
3. Limited access to digital resources, inadequate infrastructure, and insufficient teacher training hinder ICT utilization.

DISCUSSION

The study highlights the potential of ICT in enhancing CRS teaching and learning. Effective ICT utilization requires:

1. Investing in ICT infrastructure and digital resources.
2. Providing teacher training and support.
3. Developing context-specific digital CRS materials.

RECOMMENDATIONS

Governments and other relevant stakeholders should:

1. Invest in reliable internet connectivity and digital infrastructure.
2. Provide adequate ICT facilities, including computers, tablets, and interactive whiteboards.
3. Develop and maintain a comprehensive digital library of CRS resources and ensure the accessibility of its facilities for students.
4. Conduct regular teacher training programs on ICT integration in CRS.
5. Encourage collaborative planning and sharing of ICT-based CRS resources.
6. Develop context-specific digital CRS materials, including multimedia resources.

CONCLUSION

From the discussion, it is seen that the use of ICT in teaching and learning helps students to expand knowledge, experience and increase understanding, especially in the Christian Religious Studies that require visual, audio, maps, video presentation and so on. The findings concluded that using ICT in CRS lessons has positive impact on students' achievements. Schools must strive to increase usage of ICT amongst teachers. On the other hand, teachers should put more effort to use ICT in their CRS lesson in order to increase students' achievements. Teachers who

are weak in the use of ICT need to participate in ICT training courses. ICT facilities provided by the government in schools must be fully utilized by the teachers.

Using ICT in CRS lesson also help students to understand CRS concepts through a relationship with a real life situation. The use of ICT in CRS lessons improves students' achievements compared to using traditional approaches. Moreover, it makes teaching and learning process become more interesting, encouraging and effective. Using ICT in study encourages students to process information better and thus enhances the understanding and improves students' memory (Hull 1995; Gayeski, 1993).

In terms of location, the study concluded that urban students that were taught using ICT tool performed better than the students that were taught using the conventional instructional package. It is worth noting that access to ICT facilities and actual levels of access and use of computers by students in the school could have a positive effect of future productivity levels (Judge, 2005).

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