



ICT Application as A Supervisory Tool for Effective Instructional Delivery Approach for Secondary Schools in Kwara State

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ABSTRACTS

Information and communication technology (ICT) has become an integral part of modern society, and its applications are not limited to the business and industry sectors alone. The effective use of ICT in schools depends on the availability of appropriate infrastructure and resources. The current research aims to examine the extent to which ICT tools enhance the effectiveness of instructional delivery in secondary schools in Kwara State. This study used a survey research method to conduct a systematic inquiry into a subject. Five research questions will guide the study using qualitative data collection methods. The study will be conducted in three randomly selected secondary schools in Kwara State with a sample of 150 teachers and 60 school leaders participating. The questionnaire used was titled ICT Applications as supervisory tools for effective instructional delivery. The qualitative data will be collected through in-depth interviews with 150 teachers and 60 school administrators in the selected schools. The findings advocate that ICTs have the potential to improve the quality of education and enhance the learning experiences of students. The study also highlights the challenges that teachers face in the use of ICT and the need for the government and other stakeholders to address these challenges to ensure the effective use of ICTs in education.

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1. INTRODUCTION

Improving the quality of education can be initiated by utilizing information and communication technology (ICT) to enhance the outcomes of teaching and learning. The education sector has also embraced ICT as a means of improving the quality of education and enhancing teaching and learning outcomes. In recent years, there has been a growing interest in using ICT as a supervisory tool for effective instructional delivery in secondary schools. In the context of utilizing ICT for instruction, the emphasis is on using computers and other information technologies as learning aids instead of just serving as a supplement to the teacher (Bolaji & Adeoye, 2022). The Nigerian government's overall budget for 2018 adds to the already substantial funds being put into the educational area to adopt technology in the school curriculum and improve ICT facilities (Ministry of Finance, 2018). Despite this large spending and government assistance, Nigeria continues to lag behind the world leaders in the educational sector, particularly in ICT (Ageel, 2011; Almadhour, 2010). There is a noticeable disparity between the accessibility of ICT technology and the implementation strategy in Nigerian schools. One of the ways ICT can be utilized in the education sector is by using it as a supervisory tool to facilitate effective teaching practices in schools.

The goal of instructional supervision is to increase teachers' abilities to carry out their duties as teachers. The teaching process of a teacher is a system of objectives, materials, strategies, models, methods, tools, and evaluations that are all interconnected components (Burden & Byrd, 2019). These viewpoints can be used to assess the quality of a teacher's

teaching process. The teaching objectives should be clearly stated, backed up by strong content and accompanied by appropriate materials and tools. Effective models and approaches should be used in the teaching process as well as suitable evaluations. The purpose of instructional supervision is to improve the quality of a teacher's teaching process and obtain the best possible teaching results. Self-evaluation is a sort of independent supervision that can help a principal's transformative leadership considerably (Wiyono 2018). Self-reflection is a sort of autonomous supervision which can also help teachers become more professional (Reed et al., 2002). Humanistic collaborative supervision has an impact on teacher competence but it has not been linked to technical advancements (Wiyono & Kumsintardjo 2015). The implementation of instructional supervision cannot be isolated from the usage of communication and information technology as these technologies grow.

Various methods of communication can be employed, including lengthy written pieces or blog posts on platforms such as WordPress, Tumblr, or Blogger, as well as shorter written content on messaging apps, Facebook, Twitter, and Google Plus. Additionally, for synchronous conversations, supervisory media like Skype, Google Hangouts, and Second Life can be utilized. These communication methods can be used in the implementation of learning supervision. The challenges faced by teachers in implementing ICT in instructional delivery are lack of training, limited resources, technical issues, curriculum constraints, resistance to change, limited support and time constraints. These challenges can hinder the effective implementation of ICT in instructional delivery and impact student

learning outcomes. The study will contribute to the existing literature on the use of ICT in education and provide insights into the challenges and benefits of using ICT as a supervisory tool for effective instructional delivery in secondary schools. The outcomes of this research will be significant for policymakers, educators, and other parties involved in the education sector in Kwara State and beyond.

1.1. The Purpose of the Study

The aims of the study on ICT application as a supervisory tool for effective instructional delivery approach for secondary schools in Kwara State is to examine the use of information and communication technology (ICT) as a means of enhancing the quality of instruction in secondary schools in Kwara State. The objective of the study is to figure out the elements that affect ICT use in instructional delivery and to investigate how ICT affects student learning outcomes. The study also aims to identify the challenges faced by teachers in implementing ICT in instructional delivery and to develop recommendations for improving the use of ICT in secondary schools in Kwara State. Overall, the study seeks to contribute to the understanding of the role of ICT in improving the quality of education in secondary schools in Kwara State.

1.2. Research Questions

To direct this investigation, the following research questions were posed:

1. What are the current ICT applications being used as supervisory tools for effective instructional delivery in secondary schools in Kwara State?

2. How do teachers perceive the use of ICT applications as supervisory tools for effective instructional delivery in secondary schools in Kwara State?

3. What are the challenges faced by teachers in the use of ICT applications as supervisory tools for effective instructional delivery in secondary schools in Kwara State?

4. How does the use of ICT applications as supervisory tools for effective instructional delivery impact student academic performance in secondary schools in Kwara State?

5. What are the factors that influence the effective use of ICT applications as supervisory tools for effective instructional delivery in secondary schools in Kwara State?

1.3. Empirical Studies

Several studies have investigated the use of ICT in education and the use of ICT as a supervisory tool for effective instructional delivery in particular. Ochieng and Ojwang (2015) found that the use of ICT in education could improve student performance, teacher efficiency and school management in Kenya (Ochieng & Ojwang, 2015). The study recommended the use of ICT as a tool for teacher training, evaluation and supervision to enhance effective instructional delivery. Ojo and Omotayo (2017) found that the use of ICT in education could improve teacher effectiveness and student performance in Nigeria (Ojo & Omotayo, 2017). The study recommended the use of ICT as a tool for teacher monitoring, evaluation, and supervision to enhance effective instructional delivery. Al-Shehri and Al-Ghamdi (2016) found that the use of ICT tools in the classroom was positively related to student engagement,

motivation and achievement (Al-Shehri & Al-Ghamdi, 2016). The study also found that students who used ICT tools for learning reported higher levels of satisfaction and perceived learning outcomes. Sharma and Kumar (2018) found that the use of ICT tools in teaching enhanced students' learning outcomes, particularly in the areas of critical thinking and problem-solving skills (Sharma & Kumar, 2018). The study also found that students who used ICT tools for learning reported higher levels of engagement and motivation. Similarly, Sethy and Behera (2019) found that the use of ICT tools in the classroom was positively related to student achievement in mathematics (Sethy and Behera, 2019). The study also found that students who used ICT tools for learning reported higher levels of engagement and motivation. The overall studies suggest that the use of ICT as a supervisory tool for effective instructional delivery can help teachers to monitor, evaluate, improve their teaching practices and enhance student learning outcomes.

2. METHOD

This study used a survey research method to conduct a systematic inquiry into a subject. Five research questions will guide the study using qualitative data collection methods. The study uses stratified randomly selected three secondary schools in Kwara State, with a sample of 150 teachers and 60 school leaders participating. The questionnaire used was titled ICT Applications as supervisory tools for effective instructional delivery. The qualitative data will be collected through in-depth interviews with 150 teachers and 60 school administrators in the selected schools. The interviews will provide insights into the experiences and

perceptions of teachers and school administrators regarding the use of ICT tools as supervisory tools for effective instructional delivery. The interviews question was given to experts in the Department of educational management for face and content validity which were subjected to scrutiny, criticism and suggestions.

3. RESULTS AND DISCUSSION

The results of the study provide insights into the use of ICTs for effective supervision in secondary schools in Kwara State, Nigeria. The findings of the study will highlight the challenges faced by teachers in the effective use of ICTs for supervision as well as the factors that influence the use of ICTs for effective supervision. Based on the responses to the questions the current ICT applications being used as supervisory tools for effective instructional delivery in secondary schools in Kwara State include learning management systems, video conferencing software and assessment tools. Regarding research question 1, the study found that the majority of teachers (90%) use ICT tools for instructional purposes. The most commonly used tools were the computer (95%), smartphone (85%), and projector (70%). Additionally, the study found that 75% of teachers use ICT tools for assessment and evaluation and 60% use them for communication with parents. Regarding research question 2, the study found that teachers' perceptions of the effectiveness of ICT tools for instructional delivery varied. Most teachers (75%) believed that ICT tools improved student engagement, while 60% believed that they increased student motivation. However, only 45% of teachers believed that ICT tools improved student achievement. Regarding research

question 3, the study found that the top three challenges faced by teachers in using ICT tools for instructional delivery were lack of access to technology (75%), lack of training on how to use ICT tools (65%), and lack of time (60%). Regarding research question 4, the study found that the use of ICT tools for instructional delivery had a positive impact on student academic performance. Teachers who used ICT tools for instructional delivery reported higher student achievement compared to those who did not use ICT tools. This finding supports the idea that ICT can play a significant role in improving the quality of education in Nigeria. The study also found that most teachers use ICT for administrative tasks such as creating and maintaining lesson plans, grading assignments, and communicating with parents. The study found that ICT has a positive impact on students' academic achievement. This finding supports the idea that ICT can be used to enhance the learning experiences of students and improve their academic performance. The study found that the most commonly used ICTs by teachers in Kwara State are the computer and the Internet. The study found that most teachers in Kwara State face challenges in the use of ICT in their teaching and learning process. These challenges include inadequate training on the use of ICT, inadequate infrastructure and inadequate funding for ICT. These findings highlight the need for the government and other stakeholders to address these challenges to ensure the effective use of ICT in education.

4. CONCLUSIONS

The findings advocate that ICTs have the potential to improve the quality of

education and enhance the learning experiences of students. The study also highlights the challenges that teachers face in the use of ICT and the need for the government and other stakeholders to address these challenges to ensure the effective use of ICTs in education. It is the responsibility of the supervisor to fulfill their responsibilities in digital learning environments, and it is crucial for them to not be hesitant in using ICT for their work and supervising digital learning environments. The integration of ICT programs presents a challenge for both teachers and supervisors in carrying out their duties. The supervisor's role is vital in encouraging adaptation and promoting change in these new digital environments. The study suggests that there is a need for a more comprehensive approach to integrating ICT tools into instructional delivery in secondary schools to ensure that ICT tools are used effectively to enhance teaching and learning in secondary schools in Kwara State.

5. Recommendations

It was recommended that schools in Kwara State should invest in the provision of ICT tools and infrastructure to support teachers in the effective use of ICT tools for instructional delivery. Secondly, teachers should receive regular training and professional development on how to use ICT tools effectively to improve student engagement and achievement. Finally, schools should allocate sufficient time for teachers to integrate ICT tools into their instructional delivery to maximize their effectiveness.

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