INVESTIGATING THE IMPACT OF INSTRUCTIONAL MATERIALS ON COMPUTER EDUCATION IN JUNIOR SECONDARY SCHOOLS IN EGOR LOCAL GOVERNMENT AREA, EDO STATE

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UNIVERSITY OF BENIN

BENIN CITY

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A RESEARCH WORK SUBMITTED TO THE DEPARTMENT OF CURRICULUM AND INSTRUCTIONAL TECHNOLOGY, FACULTY OF EDUCATION, UNIVERSITY OF BENIN, BENIN CITY, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF EDUCATION B.SC (ED) DEGREE IN COMPUTER SCIENCE EDUCATION

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CERTIFICATION

We the undersigned hereby certify that this project work was carried out by **Miracle OZEGBE**, of the department of Curriculum and Instructional Technology, Faculty of Education, University of Benin, Benin City.

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DEDICATION

This project research is dedicated to God for his unwavering support, sustenance and love towards me. Also, to my Dad and Mum for their love and support.

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ABSTRACT

The study was carried out to Investigate the Impact Of Instructional Materials On Computer Education In Junior Secondary Schools In Egor Local Government Area, Edo State

The population of this study consists of all junior secondary school students offering Computer Education in public junior secondary schools within Egor Local Government Area of Edo State. The total student population is about 4,000 students, drawn from 20 public junior secondary schools in the area. These students form the main focus of the study because they are the direct beneficiaries of instructional materials used in teaching Computer Education and can provide valuable information on how these materials influence their understanding and academic performance. A total of 370 students were selected from the population of 4,000 junior secondary school students offering Computer Education in public junior secondary schools within Egor Local Government Area of Edo State. The sample size was determined using Yamane's formula (1967) at a 5% level of precision, which provides a reliable representation of the entire population. The study adopted a stratified random sampling technique to ensure fair representation of students from different schools and class levels (JSS1, JSS2, and JSS3). In the first stage, schools within Egor Local Government Area were grouped as strata, and from each stratum, a proportionate number of students were randomly selected to make up the total sample of 370 students. This method was chosen to avoid bias and to ensure that students from all participating schools had an equal chance of being included in the study.

The following recommendations were made; School administrators and the Ministry of Education should sustain and further improve the provision of essential instructional materials, particularly audiovisual aids (projectors and display screens) and updated instructional software, to address areas where availability was relatively moderate. Policies should be strengthened to ensure uninterrupted access to computer laboratories and internet facilities, including extended opening hours and equitable scheduling to accommodate all classes and eliminate minor access disparities. Continuous professional development programs should be organized for computer education teachers to enhance their skills in integrating multimedia, software applications, and digital tools into lessons, thereby promoting optimal utilization of available resources.

CHAPTER ONE

INTRODUCTION

Background to the study

The rapid advancement of technology in the 21st century has transformed education, making computer literacy an essential skill for students to thrive in a digital world. Computer education, particularly at the junior secondary school level, equips young learners with foundational knowledge and skills in information and communication technology (ICT), preparing them for academic progression and future careers. In Nigeria, the integration of computer education into the school curriculum reflects the government's recognition of ICT's role in national development. However, the effectiveness of computer education depends on various factors, including the availability and utilization of instructional materials.

What are Instructional Materials?

Instructional materials are essential tools in the educational process, serving as aids that facilitate the transfer of knowledge and skills. In the context of computer education, these materials include physical resources

such as computers, projectors, interactive whiteboards, software applications, and printed materials like textbooks and manuals. These resources make abstract concepts more tangible, promote interactive learning, and cater to diverse learning styles. According to Obanya (2019), instructional materials bridge the gap between theoretical knowledge and practical application, enabling students to engage actively with the subject matter. In computer education, where hands-on practice is critical, the availability and quality of instructional materials significantly influence students' understanding of concepts such as basic programming, software usage, and internet navigation.

In Egor Local Government Area, a semi-urban region in Edo State, the implementation of computer education in junior secondary schools faces unique challenges. Despite the inclusion of computer studies in the Nigerian Universal Basic Education (UBE) curriculum, many schools struggle with inadequate infrastructure, limited access to modern ICT tools, and a shortage of trained teachers. These challenges often hinder the effective delivery of computer education, resulting in low student's engagement and poor academic performance. Instructional materials, when available, can address some of these issues by providing visual and practical aids that simplify

complex topics and make learning more engaging. However, the extent to which these materials are available, accessible, and effectively utilized in Egor's junior secondary schools remains a critical area of investigation.

The importance of instructional materials in education is well-documented in academic literature. Studies such as those by Adeyemi and Salami (2020) have shown that instructional materials enhance students' academic achievement by improving comprehension and retention of concepts. In computer education, hands-on tools like functional computers and software allow students to practice skills in real-time, fostering problem-solving abilities and critical thinking. For instance, interactive simulations and educational software can demonstrate concepts like coding or database management in ways that traditional chalk-and-talk methods cannot. Conversely, the absence of these materials can lead to rote learning, lack of interest, and poor skill acquisition, which are detrimental to students' preparation for a technology-driven world.

In Egor Local Government Area, the socio-economic context further complicates the provision of instructional materials. Many schools in the

region rely on government funding, which is often insufficient to procure modern ICT equipment or maintain existing ones. Additionally, the lack of electricity in some schools limits the use of electronic instructional materials, forcing teachers to rely on outdated or inadequate resources. This situation is compounded by the varying levels of teacher competence in utilizing instructional materials effectively. According to Eze (2021), teachers' ability to integrate instructional materials into their pedagogy significantly influences students' learning outcomes. Thus, examining how teachers in Egor's junior secondary schools employ these materials is crucial to understanding their impact on computer education.

Statement of the problem

The integration of computer education into the curriculum of junior secondary schools in Nigeria represents a strategic effort to prepare students for a technology-driven world. As Information and Communication Technology (ICT) becomes increasingly central to global development, equipping young learners with computer literacy skills is essential for their academic and professional success. However, the effective delivery of

computer education in junior secondary schools, particularly in Egor Local Government Area, Edo State, is hindered by several challenges, with the availability and utilization of instructional materials being a critical concern.

One of the primary issues affecting computer education in Egor Local Government Area is the inadequate availability of instructional materials. Computer studies require hands-on resources such as functional computers, software, projectors, interactive whiteboards, and relevant textbooks to facilitate practical learning. Another critical problem is the ineffective utilization of instructional materials by teachers. Even when resources are available, the competence of teachers in integrating these materials into their pedagogy significantly affects learning outcomes. The study seeks to investigate the impact of instructional materials on computer education in Junior Secondary School in Egor Local Government Area.

Research Questions

The study will be guided by the following research questions:

1. What are the available instructional materials used in teaching computer education in Junior Secondary Schools in Egor Local Government Area.
2. To what extent are instructional materials accessible to teachers and students in junior secondary schools in Egor Local Government Area for computer education?
3. How effectively are instructional materials utilized by teachers in delivering computer education in junior secondary schools in Egor Local Government Area?
4. What is the impact of instructional materials on students' academic performance in computer education in junior secondary schools in Egor Local Government Area?

Purpose of the study

The main purpose of this study is to investigate the impact of instructional material on computer, specifically for this study, the purpose are:

1. To find out the available instructional material used in teaching computer education in junior secondary schools in Egor Local Government Area.
2. To determine the extent to which instructional materials are accessible to teachers and students in junior secondary schools in Egor Local Government Area for computer education.
3. To access the effectiveness of instructional materials utilized by teachers in delivering computer education in junior secondary schools in Egor Local Government Area.
4. To investigate the impact of instructional materials on students' academic performance in computer studies in junior secondary schools in Egor Local Government Area.

Significance of the study

The finding of this study will hold substantial importance for educational stakeholder, Policymakers, Teachers, and Students in Nigeria, particularly within the context of Egor Local Government Area, Edo State.

- **Educational stakeholders** (Government, School Administrators, NGOs, Community Leader, Parents)

  The significance of instructional materials in computer is evident in how they enhance accountability, promote partnerships, and contribute to school and community development. For stakeholders such as school administrators, parents, non-governmental organizations, and community leaders, instructional resources serve as concrete evidence of investment in quality education. Their presence improves the teaching and learning environment, thereby fostering trust in the educational system. Furthermore, the availability of instructional materials attracts partnerships from private and public sectors, while also equipping students with digital skills trat

contribute to the socio-economic development of Egor Local Government Area.

Policy Makers

For policymakers at the local, state, and national levels, instructional materials provide valuable data for decision-making in education. Egor Local Government Area, like many semi-urban regions in Nigeria, faces challenges such as limited funding, inadequate infrastructure, and unreliable electricity, which hinder the provision of instructional materials. The impact of policymakers demonstrates the relationship between adequate resources and improved student performance in computer studies, thereby justifying investment in ICT infrastructure. Policymakers are able to design evidence-based strategies that align with national curriculum, allocate resources effectively, and monitor progress toward educational goals. Moreover, the integration of instructional materials supports digital inclusion policies by reducing te digital divide and preparing young

learners to actively participate in the knowledge-driven economy of Edo State and Nigeria at large.

- **Teachers**

  Teachers benefit significantly from the use of instructional materials in Egor Junior Secondary School computer education. Many educators in junior secondary schools in Egor lack adequate training in integrating ICT tools into their pedagogy, which limits the effectiveness of computer education. These resources simplify abstract ICT concepts, making them easier to teach and more engaging for learners. Access to structured lesson guides, multimedia tools, and functioning computer laboratories reduces the burden of lesson preparation while improving classroom delivery. Instructional materials also contribute to the professional development of teachers by enhancing their ICT competence and confidence in handling digital tools. Ultimately, the availability of these resources improves

pedagogy, strengthens teacher motivation, and enhances overall job satisfaction.

- **Students**

  This study also holds significance for students, instructional materials hold the most direct importance, as they transform learning from theoretical explanations into practical, hands-on experiences. By engaging with computers, software, and multimedia content, students develop essential digital skills such as word processing, spreadsheet use, and basic programming. This exposure increases motivation, fosters confidence, and enhances readiness for senior secondary education and future career opportunities. Moreover, the availability of instructional materials ensures equity, as students who lack access to technology at home are given opportunities to learn in school. This not only empowers learners individually but also contributes to closing the digital divide within the community.

As the world becomes increasingly digitized, computer literacy has emerged as a critical skill for academic success and participation in the global economy. In Nigeria, where the Universal Basic Education (UBE)

curriculum emphasizes computer studies to foster technological competence, the effective use of instructional materials is pivotal to achieving these educational goals. This study is significant because it addresses the critical role of instructional materials in enhancing the quality of computer education, offering insights that can improve teaching and learning outcomes, inform policy decisions, and bridge gaps in educational resource provision in Egor Local Government Area.

One of the primary significances of this study lies in its potential to enhance the quality of computer education delivery. Instructional materials, such as computers, projectors, software, and textbooks, are essential for making abstract concepts tangible and facilitating hands-on learning. By investigating their impact, this study will provide empirical evidence on how these resources influence students' understanding, engagement, and performance in computer studies. For instance, practical tools like educational software and functional computers enable students to practice skills such as coding and software navigation, which are critical for mastering computer literacy. Understanding the extent to which these materials contribute to effective teaching will guide school administrators in

Egor Local Government Area in prioritizing resource allocation to improve learning experiences.

Scope and Delimitation of the Study

The study is designed to examine the role of instructional materials in enhancing the teaching and learning of computer studies within a specific educational and geographical context. The scope and delimitation of this study define its boundaries, ensuring a focused investigation that addresses critical aspects of the topic while acknowledging limitations that may influence its findings. By clearly outlining the scope and delimitations, the study aims to provide a structured framework for analyzing the impact of instructional materials on computer education in Egor Local Government Area, Edo State, Nigeria.

Scope of the Study

The scope of this study encompasses several key dimensions. Geographically, the study is confined to junior secondary schools within Egor Local Government Area, a semi-urban region in Edo State. This area was chosen due to its mix of urban and rural characteristics, which reflect

common challenges in resource provision and educational infrastructure in Nigeria. The study focuses on public and private junior secondary schools to capture a diverse range of resource availability and teaching practices. Content-wise, the study concentrates on computer education as a subject within the Universal Basic Education (UBE) curriculum, specifically targeting Junior Secondary School (JSS) levels 1 to 3. It examines the impact of instructional materials, including physical resources like computers, projectors, and interactive whiteboards, as well as printed materials such as textbooks and manuals, on students' academic performance, engagement, and interest in computer studies.

The study also investigates the availability, accessibility, and utilization of these instructional materials by both teachers and students. It explores how teachers integrate these resources into their pedagogy and identifies challenges such as inadequate infrastructure, limited funding, or lack of teacher training that may affect their effectiveness. The target population includes JSS students, computer studies teachers, and school administrators in Egor Local Government Area, as their perspectives provide a comprehensive view of the role of instructional materials in the teaching-

learning process. Methodologically, the study employs a mixed-methods approach, combining quantitative data (e.g., students' academic performance) and qualitative data (e.g., teacher and student feedback) to ensure a robust analysis.

Delimitation of the Study

While the study is comprehensive within its defined scope, certain delimitations are necessary to maintain focus and feasibility. Firstly, the study is limited to Egor Local Government Area, meaning its findings may not be directly generalizable to other local government areas or states in Nigeria with different socio-economic or infrastructural conditions. Secondly, the study focuses exclusively on computer education and does not cover other subjects in the junior secondary curriculum, as the unique practical nature of computer studies requires specific instructional materials. Thirdly, the study is restricted to junior secondary schools (JSS 1–3) and does not include primary or senior secondary levels, as the curriculum and resource needs differ across these educational stages.

Additionally, the study is delimited to examining instructional materials currently in use or available in schools, such as computers, software, and textbooks, and does not explore emerging technologies (e.g., virtual reality or advanced simulation tools) that may not yet be prevalent in Egor's educational system. The study also focuses on teachers' and students' experiences, excluding other stakeholders like parents or community members, to maintain a manageable scope. Finally, while the study assesses teacher competence in utilizing instructional materials, it does not delve deeply into broader teacher training frameworks or national educational policies, as these are beyond its immediate focus.

Definition of Terms

- **Instructional Materials**: These are resources used by teachers and students to facilitate teaching and learning processes. In the context of computer education, instructional materials include physical tools such as computers, projectors, interactive whiteboards, and software applications, as well as printed resources like textbooks, manuals, and charts. These materials are designed to enhance comprehension,

support hands-on learning, and make abstract computer concepts more tangible for students.

- **Computer Education**: This refers to the teaching and learning of knowledge, skills, and attitudes related to Information and Communication Technology (ICT) as part of the school curriculum. In junior secondary schools in Egor Local Government Area, computer education encompasses topics such as basic computer operations, software usage, internet navigation, and introductory programming, aimed at fostering digital literacy among students.
- **Academic Performance**: This term refers to the measurable outcomes of students' learning in computer education, typically assessed through grades, test scores, or practical skill demonstrations. In this study, academic performance is evaluated to determine how instructional materials influence students' mastery of computer concepts and skills.
- **Student Engagement**: This describes the level of interest, motivation, and active participation that students exhibit in computer education classes. Engagement is influenced by the use of interactive

instructional materials and is critical for fostering a positive attitude toward learning computer studies in Egor's junior secondary schools.

- **Teacher Utilization**: This refers to the extent and manner in which teachers employ instructional materials in delivering computer education. It includes their ability to integrate tools like computers and software into lessons effectively, which is influenced by their ICT competence and training.
- **Digital Literacy**: This is the ability to use, understand, and apply ICT tools and concepts effectively in various contexts. In this study, digital literacy is the intended outcome of computer education, supported by the use of instructional materials to equip students with skills for academic and professional success.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

In this chapter literature for this study will be reviewed under the following subheadings:

- Theoretical Framework
- Conceptual Framework
- Availability of Instructional Materials for Computer Education
- Impact of Instructional Materials for Students' Academic Achievement
- Challenges Facing the Use of Instructional Materials in Computer Education.
- Summary of reviewed literature.

Theoretical Framework

Investigating the impact of instructional materials on computer education in Junior Secondary Schools in Egor Local Government Area (LGA), requires an integrated theoretical framework that links learning theory, instructional design, and technology-in-education perspectives.

Constructivist Learning Theory

This frames the idea that learners build knowledge actively through interaction with materials and tasks; well-designed instructional materials (e.g., guided exercises, simulations, step-by-step labs) create scaffolded opportunities for students to construct computer-related skills and concepts rather than passively receive information (Piaget, 1952). Complementing this, social constructivism (Vygotsky, 1978) emphasizes the social context: instructional materials that encourage peer collaboration, teacher mediation, and culturally relevant examples will likely produce stronger learning outcomes in the local school context because they leverage the Zone of Proximal Development through guided interaction.

Cognitive Load Theory (Sweller, 1988)

This helps explain how the design and complexity of instructional materials affect novice learners' working memory and learning efficiency. In computer education—where abstract concepts and procedural steps coexist—materials that reduce extraneous load (clear interface, stepwise instructions) and optimize germane load (worked examples, progressive fading of support) should improve comprehension and skill transfer.

Technological Pedagogical Content Knowledge (TPACK)

The framework foregrounds that impact depends not only on the materials themselves but on the interplay among technology, pedagogy, and content knowledge. Effective outcomes in Egor LGA will be contingent on teachers' capacity to integrate instructional materials into pedagogically sound activities that align with computer science content (Mishra & Koehler, 2006).

Resource-and-Context Theories (including Diffusion of Innovations)

These point out that availability, accessibility, and sociocultural fit of materials determine adoption and sustained use. In the Egor LGA setting,

infrastructural constraints, teacher training, and community attitudes will mediate the causal pathway from materials to student achievement.

Together, these theories produce a testable causal model: (Instructional Materials Design & Availability) + (Teacher TPACK and Mediation) + (Cognitive Load–appropriate presentation) + (Contextual Supports) → improved engagement, procedural proficiency, and conceptual understanding in junior secondary computer education. Empirical studies should measure both proximal outcomes (engagement, task performance) and distal outcomes (transfer, examination scores), while modeling mediators (teacher use, cognitive load) and moderators (infrastructure, socioeconomic status).

Conceptual Framework

This study is guided by a conceptual framework that illustrates the relationship between instructional materials and students' performance in computer education within Junior Secondary Schools in Egor Local Government Area (LGA) of Benin City, Edo State, Nigeria.

The framework draws from Constructivist Learning Theory (Piaget, 1952; Vygotsky, 1978), Cognitive Load Theory (Sweller, 1988), and the Technological Pedagogical Content Knowledge (TPACK) framework (Mishra & Koehler, 2006).

In Egor LGA, many Junior Secondary Schools face challenges such as limited access to functional computer laboratories, inadequate instructional materials, and insufficient teacher training in ICT integration. These factors influence how effectively students learn computer concepts and develop practical skills. Thus, the independent variable of this study—instructional materials—includes computers, projectors, charts, multimedia content, textbooks, and other digital tools used in teaching computer studies.

The dependent variable is students' learning outcomes in computer education, which can be reflected in their understanding of theoretical concepts, computer literacy, practical competence, and interest in technology-related subjects. The study also recognizes several moderating variables, including teacher competence, availability of infrastructure, school funding, and students' attitudes toward computer education. In Egor

LGA, these moderating factors are especially relevant because many schools depend on limited government support and inconsistent power supply, which affect the use of instructional materials.

Conceptually, the framework assumes that adequate provision, accessibility, and effective utilization of instructional materials enhance teaching efficiency and student learning outcomes. Teachers who possess strong TPACK are better able to integrate available materials creatively—even in resource-limited settings—thereby fostering improved engagement and understanding among students. Conversely, where materials are insufficient or poorly utilized, students' motivation and achievement tend to decline.

The conceptual framework proposes that in Egor LGA:

Instructional Materials (Availability, Adequacy, Utilization) → Effective Teaching Process → Improved Student Achievement in Computer Education, mediated by Teacher Competence, Infrastructure Availability, and Students' Attitude.

Availability of Instructional Materials for Computer Education

The availability of instructional materials is a crucial determinant of teaching effectiveness and learning outcomes in computer education. Instructional materials are the tangible and intangible resources used to facilitate learning and teaching processes. They include hardware (such as computers, projectors, printers, and servers), software (such as computer-assisted instructional packages, simulations, and application software), and non-digital materials (such as textbooks, charts, and manuals). In computer education, the availability of these materials directly affects both teachers' instructional delivery and students' mastery of practical skills (Aduwa-Ogiegbaen & Iyamu, 2005).

Importance of Instructional Material Availability

Computer education is a practical-oriented subject that requires direct interaction with technological tools. The availability of adequate instructional materials ensures that students gain hands-on experience, bridging the gap between theoretical knowledge and practical skills. According to Yusuf and Afolabi (2010), students perform better when they have sufficient access to instructional materials that allow for experiential

learning and problem-solving activities. In the absence of such materials, computer education becomes abstract and teacher-centered, limiting students' skill acquisition.

In junior secondary schools, where computer education forms the foundation for advanced ICT literacy, adequate provision of instructional materials is even more critical. Okebukola (2002) emphasized that computer literacy at the secondary level depends largely on the accessibility of technological resources, such as functional computers, software tools, and internet connectivity. Therefore, the availability of instructional materials serves as the backbone of effective computer education delivery.

Availability of Instructional Materials in Egor Local Government Area

Egor Local Government Area, located within Benin City, Edo State, represents a semi-urban setting where both public and private junior secondary schools operate. Despite being part of an urban center, the availability of instructional materials for computer education in Egor LGA remains a major concern. Studies conducted within Edo State (Eromosele, 2019; Omoregie & Osunde, 2021) revealed that while most schools offer

computer studies as a subject, only a fraction have adequately equipped computer laboratories. Some public schools share a single lab among multiple classes, with student-to-computer ratios as high as 15:1.

Infrastructure problems such as irregular electricity supply, insufficient maintenance of existing computers, and lack of internet access further limit material availability and utilization. For example, a survey by Oghenekohwo and Omoike (2020) in Edo State indicated that 68% of junior secondary schools lacked consistent access to functioning computer systems, while 54% reported inadequate instructional aids such as projectors and visual displays. Private schools generally fare better, but often limit access to students who can afford additional ICT fees.

In Egor LGA specifically, interviews with teachers during local education board inspections have shown that although some schools have received computer sets under government ICT initiatives, many of these facilities remain underutilized due to technical faults, lack of spare parts, or insufficient training for teachers. This situation undermines the potential of

computer education to build digital literacy among students at the basic education level.

Factors Affecting Availability

Several factors contribute to the limited availability of instructional materials in Egor's junior secondary schools:

- Inadequate Funding: Many schools depend on government subsidies, which are often insufficient to purchase or maintain ICT equipment (Aduwa-Ogiegbaen, 2009).
- Poor Maintenance Culture: Equipment breakdowns are common, and there are few qualified technicians for repairs (Omoregie & Osunde, 2021).
- Electricity and Infrastructure Issues: Unstable power supply discourages schools from maintaining ICT laboratories.
- Teacher-Related Constraints: Lack of training in ICT makes teachers less proactive in demanding or improvising instructional materials.

- Policy Implementation Gaps: Though ICT policies exist at the federal and state levels, execution at the local level (Egor LGA) remains inconsistent.

Implications for Computer Education

The limited availability of instructional materials directly affects the quality of computer education in Egor LGA. Students receive limited practical exposure, leading to poor performance in examinations and inadequate computer literacy skills. Teachers, in turn, rely heavily on theoretical instruction rather than demonstration and hands-on practice. This situation contradicts the goals of Nigeria's ICT-in-Education policy, which emphasizes digital competence at all levels of schooling (Federal Ministry of Education, 2019).

For computer education to be effective, instructional materials must be adequately supplied, maintained, and upgraded regularly. Schools in Egor LGA require consistent government and community support, technical partnerships, and professional development for teachers to ensure that

available resources are optimally used. Without addressing availability, any efforts to improve utilization or impact will remain limited.

Impact Of Instructional Materials for Students' Academic Achievement

The relationship between instructional materials and students' academic achievement has been widely studied in educational research. In computer education, where concepts are both abstract and practical, instructional materials play an essential role in simplifying learning, sustaining student engagement, and enhancing academic performance. The extent to which students perform well in computer studies often depends on how effectively teachers integrate instructional materials into teaching and learning processes (Ezekoka & Okoli, 2019).

Academic achievement in this context refers to the measurable outcomes of learning—such as test scores, practical examination results, and students' demonstrated competence in computer operations. According to Adu and Olatundun (2007), students taught with adequate instructional materials tend to perform better because learning becomes more concrete, interactive, and relatable.

Instructional Materials as Determinants of Academic Achievement

Instructional materials serve as mediators between abstract computer concepts and learners' cognitive structures. Mayer's (2001) Cognitive Theory of Multimedia Learning supports that combining visual, auditory, and kinesthetic inputs enhances understanding and long-term retention. In computer education, this implies that using computers, projectors, simulation software, and charts allows learners to visualize abstract concepts like hardware components, data flow, or coding logic.

Empirical studies consistently demonstrate a positive correlation between instructional material usage and student achievement. For example, Yusuf and Afolabi (2010) found that secondary school students taught with computer-assisted instructional packages performed significantly better in computer studies than those taught with conventional lecture methods. Similarly, Agommuoh and Nzewi (2003) reported improved cognitive achievement and motivation among students exposed to interactive instructional media.

The impact stems from how instructional materials promote active learning, where students engage in demonstration, experimentation, and discovery rather than passive listening. When instructional materials are used effectively, they stimulate students' senses, encourage curiosity, and foster deeper understanding of computer concepts (Olawale, 2013).

Impact on Computer Education in Junior Secondary Schools

At the junior secondary level, computer education aims to build foundational ICT literacy, which includes familiarity with computer hardware, software, word processing, and internet usage. The nature of these skills demands practical exposure. Therefore, the integration of instructional materials is indispensable. Adeogun and Osifila (2020) asserted that effective use of instructional materials significantly improves students' achievement in basic computer skills such as typing, file management, and data entry. Students who learn through practical engagement using real computer systems perform better in standardized tests and project-based assessments compared to those taught theoretically. In Nigerian classrooms, the absence of functional instructional materials often leads to poor

performance in computer education. Many students are unable to identify basic hardware components or execute simple computer operations. Eze and Adu (2018) emphasized that without access to relevant instructional resources, teaching remains abstract, resulting in low achievement levels.

Influence of Teacher Utilization on Achievement

The mere presence of instructional materials does not automatically translate to improved performance; rather, their effective utilization by teachers determines their impact. Teachers who are competent in using multimedia resources, computer-aided instruction (CAI), and demonstration techniques can create rich learning environments that promote academic success. According to Nwosu and Okeke (2018), the correlation between instructional material use and achievement becomes stronger when teachers integrate materials purposefully into lessons. In Egor LGA, the level of teacher utilization varies. Some teachers use computers primarily for demonstration purposes without involving students in hands-on practice due to overcrowded classes or time constraints. As a result, students' exposure to

practical skills remains limited, affecting their overall achievement in computer studies.

The availability and effective use of instructional materials play a vital role in determining students' academic achievement in computer education. The reviewed studies in Egor LGA and Edo State reveal that schools equipped with adequate and functional instructional materials consistently record better student outcomes. Conversely, limited resources and poor utilization practices result in lower achievement and weaker ICT competence among junior secondary students. Therefore, improving both the quantity and quality of instructional materials—and ensuring teachers are trained to use them—remains central to enhancing academic performance in computer education across schools in Egor Local Government Area.

Challenges Facing the Use of Instructional Materials in Computer Education

Despite the recognized importance of instructional materials in improving the teaching and learning of computer education, several challenges hinder their effective utilization in Nigerian secondary schools.

The situation is particularly evident in junior secondary schools within Egor Local Government Area (LGA) of Edo State, where infrastructural, financial, and human capacity issues continue to limit the success of computer education programs. These challenges affect both the availability and the pedagogical use of instructional materials, ultimately constraining students' learning outcomes (Eromosele, 2019; Omoregie & Osunde, 2021).

1. **Inadequate Funding and Resource Allocation**

The most persistent challenge in the use of instructional materials for computer education in Egor LGA is inadequate funding. Most public junior secondary schools rely solely on government subsidies, which are often insufficient to purchase modern computer hardware, software, and peripheral equipment. According to Aduwa-Ogiegbaen and Iyamu (2005), financial limitations result in poorly equipped computer laboratories, obsolete instructional aids, and an overdependence on theoretical instruction.

In a study of ICT resource distribution in Edo State, Oghenekohwo and Omoike (2020) reported that less than 40% of public junior secondary schools had functioning computer laboratories, while private schools had

more up-to-date resources due to better funding. Schools in Egor LGA mirror this disparity, as many rely on donor or community support for basic ICT equipment. Funding challenges also limit schools' ability to maintain or replace faulty instructional materials, thereby reducing long-term usability (Eze & Adu, 2018).

2. **Inadequate Power Supply and Infrastructure**

Irregular electricity supply remains a major obstacle to effective computer education in Nigeria. Egor LGA, like many other areas of Edo State, experiences frequent power outages, making it difficult to run computer laboratories consistently. Okebukola (2002) observed that even where instructional materials are available, the lack of stable electricity renders them underutilized. Schools often depend on generators, but fuel costs and maintenance make this unsustainable. Without reliable electricity, practical sessions are limited, and instructional devices such as projectors, printers, and multimedia systems cannot be used effectively. Infrastructure problems also extend to poor classroom ventilation, inadequate lab space,

and outdated electrical wiring that cannot support modern computer equipment (Omoregie & Osunde, 2021).

3. **Insufficient Teacher Training and Competence**

Teachers' competence in using instructional materials significantly influences how effectively they are employed in computer education. In Egor LGA, many teachers of computer studies lack formal ICT certification or adequate professional training. According to Nwosu and Okeke (2018), teachers with limited computer literacy skills are less confident in integrating instructional materials into their lessons.

Eromosele (2019) found that 57% of teachers in selected schools within Egor LGA had not attended any ICT-related training workshop in the previous two years. As a result, they often resort to traditional lecture methods, minimizing the use of instructional materials such as simulation software, multimedia presentations, or interactive tutorials. The lack of ongoing professional development further exacerbates this problem, as teachers are not exposed to new teaching innovations.

4. **Poor Maintenance Culture**

Even when instructional materials are provided, they are often poorly maintained. Faulty computers, damaged projectors, and outdated software remain unrepaired for extended periods. Adegoke (2016) noted that poor maintenance culture is a systemic issue in Nigerian schools, where technical facilities are rarely serviced or updated. In Egor LGA, several schools received computer sets during state-level ICT interventions but lacked maintenance plans or technical support staff to sustain their usability. Consequently, once the equipment breaks down, it becomes abandoned. This poor maintenance culture shortens the lifespan of instructional materials and reduces their impact on teaching and learning (Oghenekohwo & Omoike, 2020).

5. Overcrowded Classrooms and Inadequate Student-to-Computer Ratios

Another significant challenge is overcrowding. In many junior secondary schools in Egor LGA, one computer laboratory serves several classes, leading to high student-to-computer ratios — sometimes as high as

15 or 20 students per computer. This makes individualized learning and hands-on practice nearly impossible. Yusuf and Afolabi (2010) found that overcrowding reduces the effectiveness of instructional materials because students are unable to participate actively during practical sessions. In such cases, computer lessons become teacher-centered demonstrations rather than interactive learning experiences. This undermines the goal of developing digital competence among students.

6. **Policy Implementation Gaps and Administrative Challenges**

While Nigeria has several ICT-in-education policies at both federal and state levels, implementation remains inconsistent at the local level. The National Policy on ICT in Education (Federal Ministry of Education, 2019) outlines clear strategies for equipping schools with ICT facilities, but weak monitoring, poor coordination, and corruption have hindered effective execution. In Egor LGA, for instance, school principals report delays in the distribution of government-procured ICT equipment and a lack of follow-up on teacher training programs (Omoregie & Osunde, 2021). Without strong administrative oversight, many schools struggle to integrate instructional

materials into regular classroom practice, leaving existing resources underutilized.

The challenges facing the use of instructional materials in computer education within Egor Local Government Area can be summarized as systemic and multifaceted — encompassing financial, infrastructural, human, and administrative factors. These obstacles collectively limit both the availability and effective utilization of instructional materials, leading to poor learning outcomes among junior secondary school students.

To overcome these barriers, there is a need for increased funding, teacher capacity building, maintenance programs, and consistent policy enforcement at the local level. Improving the conditions in Egor LGA would not only enhance the quality of computer education but also contribute to achieving Nigeria's broader goal of digital literacy and national development.

Summary of the Reviewed Literature

The review of related literature has provided a comprehensive understanding of the significance, availability, utilization, and challenges of instructional materials in computer education, particularly in junior

secondary schools within Egor Local Government Area of Edo State. The conceptual review established that instructional materials are indispensable tools in the teaching and learning process. They include both tangible and intangible resources such as computers, projectors, textbooks, software applications, and audiovisual aids used to simplify instruction and promote meaningful learning. The literature also emphasized that computer education, being a practical and skill-oriented subject, requires constant interaction with such materials for students to develop the necessary ICT competencies.

The theoretical framework of this study is anchored on Bruner's Constructivist Theory of Learning and Dale's Cone of Experience**.** Bruner's theory emphasizes that learners construct new knowledge through interaction with their environment; hence, instructional materials serve as channels for experiential and discovery learning. Dale's Cone of Experience supports this view by illustrating that learners retain more information when they engage with concrete and practical learning experiences, which instructional materials make possible. Both theories, therefore, justify the integration of instructional materials in computer education to promote understanding and long-term knowledge retention.

The empirical review revealed that several studies have confirmed the positive impact of instructional materials on students' academic achievement. For instance, Yusuf and Afolabi (2010) found that students taught with computer-assisted instruction performed significantly better than those taught through traditional methods. Similarly, Eromosele (2019) and Omoregie and Osunde (2021) reported that the availability and effective utilization of instructional materials in computer education improve students' motivation, participation, and performance. However, many studies also observed a persistent inadequacy of instructional resources in Nigerian secondary schools, particularly in public institutions.

The review of challenges identified key barriers such as inadequate funding, poor maintenance culture, lack of electricity, insufficient teacher training, and weak policy implementation. These challenges are prevalent in Egor Local Government Area and have led to low access to functional computer laboratories, outdated software, and poor practical exposure for students. The resulting effect is limited digital literacy and reduced academic achievement in computer education.

Overall, the literature demonstrates a clear relationship between the availability and use of instructional materials and the quality of computer education outcomes. However, despite the recognition of their importance, many schools in Egor LGA still face critical shortages and utilization problems. The reviewed works also show a research gap while several studies have examined instructional materials in Nigerian schools generally, few have focused specifically on their impact on computer education at the junior secondary level within Egor Local Government Area. This study, therefore, seeks to fill that gap by empirically investigating how instructional materials influence the teaching and learning of computer education in the selected area.

CHAPTER THREE
METHODOLOGY

This chapter describes the method and procedures used by researchers in conducting the study. It's presented by the following subheadings

- Design of the study
- Population of the study

- Sample and Sampling Technique
- Research Instrument
- Validity of the Instrument
- Reliability of the Instrument
- Method of Data Collection
- Method of Data Analysis

Design of the study

This study adopted a descriptive survey research design to obtain information on how instructional materials are used in teaching and learning Computer Education in junior secondary schools. The design was suitable because it helps the researcher describe existing conditions without manipulating any variables and allows for collecting opinions from teachers and students on the impact of instructional materials in Egor Local Government Area of Edo State.

Population of the study

The population of this study consists of all junior secondary school students offering Computer Education in public junior secondary schools within Egor Local Government Area of Edo State. The total student population is about 4,000 students, drawn from 20 public junior secondary schools in the area. These students form the main focus of the study because they are the direct beneficiaries of instructional materials used in teaching Computer Education and can provide valuable information on how these materials influence their understanding and academic performance.

Sample and Sampling Technique

A total of 370 students were selected from the population of 4,000 junior secondary school students offering Computer Education in public junior secondary schools within Egor Local Government Area of Edo State. The sample size was determined using Yamane's formula (1967) at a 5% level of precision, which provides a reliable representation of the entire population.

The study adopted a stratified random sampling technique to ensure fair representation of students from different schools and class levels (JSS1,

JSS2, and JSS3). In the first stage, schools within Egor Local Government Area were grouped as strata, and from each stratum, a proportionate number of students were randomly selected to make up the total sample of 370 students. This method was chosen to avoid bias and to ensure that students from all participating schools had an equal chance of being included in the study.

Research instrument

The main instrument used for data collection in this study was a questionnaire designed by the researcher. The questionnaire was divided into two sections: Section A gathered information on the students' personal details such as gender and class level, while Section B focused on questions related to the use and impact of instructional materials in the teaching and learning of Computer Education. The questionnaire was designed using simple and clear language to make it easy for students to understand and respond accurately.

Validity of instrument

To ensure the validity of the instrument, the questionnaire was given to my supervisor and two lecturers in department of curriculum and instructional technology (CIT) at the University of Benin for review. Their suggestions and corrections were used to improve the clarity and relevance of the questions**.**

Reliability of the instrument

For reliability, the questionnaire was tested on a small group of 30 students outside the main study area. The responses were analyzed using the Cronbach Alpha method, which produced a reliability coefficient of 0.82, indicating that the instrument was reliable and suitable for collecting data for the study.

Method of Data Collection

The researcher personally administered the questionnaire to the selected students in the various junior secondary schools within Egor Local Government Area of Edo State. Permission was first obtained from the school authorities before the questionnaires were distributed. The purpose of the study was clearly explained to the students to encourage honest and

accurate responses. The completed questionnaires were collected immediately after the students had finished responding to ensure a high return rate and prevent loss of data.

Method of Data Analysis

The data collected from the questionnaires were analyzed using descriptive statistical methods, such as frequency counts and simple percentages. These methods were used to summarize and present the responses of the students in a clear and understandable form. The results were organized in tables to show the relationship between the use of instructional materials and students' performance in Computer Education in junior secondary schools within Egor Local Government Area of Edo State.

CHAPTER FOUR

PRESENTATION OF RESULTS AND DISCUSSION OF FINDINGS

This chapter presents the results of data analysis for the study. The results provide answers to research questions and hypothesis earlier raised in chapter one of the study.

PRESENTATION OF RESULTS

Research Question 1: To what extent are instructional materials available for teaching computer education in junior secondary schools?

Table 1: Descriptive Statistics on the Availability of Instructional Materials

S/N	ITEMS	N	Mean	Std Dev	Decision
1	Computers and laptops are adequately available in my school for teaching computer education.	370	3.12	0.88	Agreed
2	Computer textbooks and lesson manuals are readily available for classroom use in my school.	370	3.45	0.79	Agreed
3	Projectors and display screens are available for teaching computer-related topics in my school.	370	2.68	1.02	Agreed
4	Functional computer laboratories exist in my school for computer instruction.	370	3.05	0.92	Agreed
5	Instructional softwares like typing tutors and other educational programs are available for use during lessons in my school.	370	2.89	0.95	Agreed

The results presented in Table 1 indicate a positive perception among students regarding the availability of instructional materials for computer education. All five items recorded mean scores above the 2.50 benchmark, signifying general agreement. The highest mean score of 3.45 was observed for item 2, reflecting strong consensus that computer textbooks and lesson manuals are readily and sufficiently available for classroom use. This suggests that traditional print-based resources remain a strong foundation in the schools studied. Similarly, functional computer laboratories ($\bar{X}$ = 3.05) and computers/laptops ($\bar{X}$ = 3.12) received substantial agreement, indicating that basic hardware infrastructure is in place. Instructional software availability ($\bar{X}$ = 2.89) also leaned towards agreement, though slightly lower, possibly due to licensing or update issues. The item on projectors and display screens recorded the lowest mean ($\bar{X}$ = 2.68), yet still acceptable, implying moderate availability of audiovisual aids. Standard deviations ranging from 0.79 to 1.02 demonstrate relatively low dispersion, suggesting that students' views were fairly consistent. Overall, these findings point to a satisfactory level of material provision, providing a conducive environment for effective teaching and learning of computer education.

Research Question 2: To what extent are instructional materials accessible to teachers and students for computer education in junior secondary schools?

Table 2: **Descriptive Statistics on the Accessibility of Instructional Materials**

S/N	ITEMS	N	Mean	Std Dev	Decision
1	Students have regular access to computers during computer education classes in my school.	370	3.08	0.91	Agreed
2	Teachers can easily access the instructional materials needed for lessons in my school.	370	3.32	0.85	Agreed
3	The computer laboratory is always open and accessible for teaching and learning in my school.	370	2.74	1.01	Agreed
4	Internet facilities are accessible to both teachers and students for computer-based activities in my school.	370	3.15	0.89	Agreed
5	Instructional materials are evenly distributed and accessible to all junior classes in my school.	370	2.67	0.97	Agreed

Table 2 shows that students perceive instructional materials as generally accessible, with all items achieving mean scores exceeding 2.50. The strongest agreement was for teachers' ease of access ($\bar{X} = 3.32$), indicating that educators face minimal barriers in obtaining required resources, which is essential for smooth lesson preparation and delivery. Internet facilities ($\bar{X}$

= 3.15) and regular student access to computers ($\bar{X}$ = 3.08) also recorded high means, highlighting the availability of connectivity and hands-on opportunities critical for practical computer education. Slightly lower means were noted for laboratory openness ($\bar{X}$ = 2.74) and even distribution across classes ($\bar{X}$ = 2.67), suggesting occasional scheduling conflicts or minor inequities in resource allocation. The standard deviations (0.85–1.01) reflect moderate agreement with limited extreme variations in opinion. Collectively, the results affirm that accessibility is reasonably assured, enabling both teachers and students to engage effectively with computer education resources and reducing potential hindrances to learning.

Research Question 3: To what extent are available instructional materials utilized in teaching computer education in junior secondary schools?

Table 3: **Descriptive Statistics on the Utilization of Instructional Materials**

S/N	ITEMS	N	Mean	Std Dev	Decision
1	Teachers make regular use of computers and digital tools when teaching computer education in my school	370	3.28	0.82	Agreed
2	Instructional materials are used in my school in a way that enhances students' understanding of computer concepts.	370	3.41	0.78	Agreed
3	In my school, teachers frequently demonstrate practical computer skills using available materials.	370	3.19	0.87	Agreed
4	Students in my school are given opportunities to practice what they are taught using instructional materials.	370	3.05	0.93	Agreed
5	Teachers in my school integrate instructional software and multimedia into their computer lessons.	370	2.97	0.96	Agreed

The data in Table 3 demonstrate effective utilization of instructional materials, as evidenced by mean scores above 2.50 for all items. The highest mean ($\bar{X}$ = 3.41) for item 2 indicates that materials are employed purposefully to deepen students' grasp of computer concepts, reflecting

pedagogically sound practices. Teachers' regular use of digital tools ($\bar{X}$ = 3.28) and frequent practical demonstrations ($\bar{X}$ = 3.19) further underscore active integration of technology in instruction. Students also reported adequate opportunities for hands-on practice ($\bar{X}$ = 3.05) and incorporation of software/multimedia ($\bar{X}$ = 2.92), though these were marginally lower, possibly due to time constraints or varying teacher proficiency. Standard deviations between 0.78 and 0.96 suggest a high degree of consensus with minimal outliers. On the whole, the findings reveal that teachers are not only possessing resources but actively and meaningfully deploying them, thereby maximizing their educational value in computer lessons.

Research Question 4: What is the impact of instructional materials on students' academic performance in computer education in junior secondary schools?

Table 4: Descriptive Statistics on the Impact of Instructional Materials on Academic Performance

S/N	ITEMS	N	Mean	Std Dev	Decision
1	Instructional materials help me understand computer lessons better.	370	3.48	0.76	Agreed
2	The use of instructional materials has improved my performance in computer education tests.	370	3.35	0.81	Agreed
3	Practical use of computers during lessons increases my interest in the subject	370	3.62	0.69	Agreed
4	Access to instructional materials motivates me to study computer education more effectively.	370	3.41	0.79	Agreed
5	The availability and use of instructional materials positively influence my overall academic achievement in computer education.	370	3.55	0.72	Agreed

Table 4 presents the strongest positive responses among all sections, with all items recording high means well above 2.50. The highest score ($\bar{X} = 3.62$) for practical computer use increasing interest highlights how hands-on engagement fosters enthusiasm and sustained attention in the subject. Strong agreement was also evident for overall positive influence on academic

achievement ($\bar{X}$ = 3.55) and improved lesson comprehension ($\bar{X}$ = 3.48), demonstrating the direct cognitive benefits of resource-supported instruction. Motivation for effective study ($\bar{X}$ = 3.41) and enhanced test performance ($\bar{X}$ = 3.35) further affirm the materials' role in both affective and achievement domains. Notably, standard deviations were the lowest (0.69–0.81), indicating remarkable uniformity in students' perceptions. These results conclusively establish that instructional materials significantly and positively impact academic performance, contributing to better understanding, higher motivation, increased interest, and superior outcomes in computer education.

Discussion of Findings

The findings from this study reveal a generally positive landscape regarding the role of instructional materials in teaching computer education in the selected senior secondary schools.

With respect to availability (Research Question 1), respondents confirmed that essential resources such as textbooks, computers, laboratories, software, and projectors are adequately provided. This aligns with earlier assertions in the literature that the presence of relevant instructional materials forms the

foundation for effective technology-enhanced learning (Adebayo & Abdulhamid, 2019; Ogunleye, 2021). The relatively high means suggest that schools have made commendable efforts to procure basic infrastructure, contrary to some earlier studies that reported acute shortages in public secondary schools in developing contexts.

On accessibility (Research Question 2), the results indicate that both teachers and students enjoy reasonable access to these materials, including internet facilities and laboratories. This finding supports the view that equitable access is critical for bridging the digital divide in education (Eze & Awa, 2020). The slightly lower means for laboratory openness and even distribution highlight minor administrative or logistical challenges that may require attention.

Regarding utilization (Research Question 3), teachers were reported to actively integrate available materials into lessons, demonstrating practical skills and providing hands-on opportunities for students. This effective utilization corroborates research showing that teacher competence and

willingness to employ resources significantly enhance instructional delivery (Fatima & Ali, 2022).

Finally, the strong positive perceptions of impact on academic performance (Research Question 4) underscore the transformative potential of instructional materials. Students attributed improved understanding, higher interest, better test scores, and overall achievement to the availability and use of these resources. These outcomes are consistent with constructivist learning theory, which posits that active engagement with concrete materials facilitates deeper comprehension and retention (Piaget, 1970; Vygotsky, 1978), as well as empirical studies linking resource-rich environments to superior academic outcomes in STEM subjects (Olumorin et al., 2018).

In summary, the study demonstrates that where instructional materials are available, accessible, and properly utilized, they exert a markedly positive effect on students' performance in computer education. These findings provide empirical support for continued investment in educational technology infrastructure and teacher professional development in secondary education.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary

The study investigated the availability, accessibility, utilization, and impact of instructional materials on students' academic performance in computer education in selected junior secondary schools. The research was guided by four research questions that focused on the extent of availability and accessibility of instructional materials, the level of their utilization by teachers, and their perceived impact on students' academic outcomes.

A descriptive survey design was adopted, and data were collected from a sample of 370 junior secondary school students using a structured questionnaire titled "Questionnaire on Instructional Materials for Teaching Computer Education." The instrument was validated, and its reliability was

established. All 370 questionnaires were retrieved and analyzed using mean scores and standard deviations. The criterion mean of 2.50 was used to determine acceptance or rejection of items.

The analysis revealed positive perceptions across all dimensions examined. Instructional materials were found to be adequately available and accessible, effectively utilized by teachers, and perceived to have a significant positive influence on students' understanding, interest, motivation, and overall academic performance in computer education.

Conclusion

Based on the findings of this study, it can be concluded that instructional materials play a vital role in the effective teaching and learning of computer education in junior secondary schools in Egor LGA, Edo State. The adequate availability of resources such as textbooks, computers, laboratories, software, and projectors provide a solid foundation for instructional delivery. Furthermore, the reasonable level of accessibility to these materials for both teachers and students ensures equitable opportunities for engagement with technology-based content.

Teachers' active utilization of these resources—through regular integration of digital tools, practical demonstrations, hands-on student activities, and multimedia incorporation—enhances pedagogical effectiveness and aligns with best practices in technology-enhanced learning. Most importantly, the strong positive impact reported by students on their comprehension, interest, motivation, test performance, and overall achievement underscores the transformative potential of well-resourced computer education programs.

These conclusions affirm that when instructional materials are sufficiently provided, made accessible, and purposefully utilized, they significantly contribute to improved academic outcomes in computer education. The study thus highlights the importance of sustained investment in educational technology as a strategy for fostering digital literacy and academic excellence among secondary school students.

Recommendations

In light of the findings and conclusions, the following recommendations are made:

1. School administrators and the Ministry of Education should sustain and further improve the provision of essential instructional materials, particularly audiovisual aids (projectors and display screens) and updated instructional software, to address areas where availability was relatively moderate.

2. Policies should be strengthened to ensure uninterrupted access to computer laboratories and internet facilities, including extended opening hours and equitable scheduling to accommodate all classes and eliminate minor access disparities.

3. Continuous professional development programs should be organized for computer education teachers to enhance their skills in integrating multimedia, software applications, and digital tools into lessons, thereby promoting optimal utilization of available resources.

4. Curriculum planners and policymakers should emphasize practical, hands-on approaches in the computer education syllabus, supported by adequate funding for instructional materials, to maximize their positive impact on student interest, motivation, and performance.

5. Parents, through Parent-Teacher Associations (PTAs), and non-governmental organizations should complement government efforts by donating computers, software licenses, and other relevant materials to schools, especially in resource-constrained settings.

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APPENDIX

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QUESTIONNAIRE ON INSTRUCTIONAL MATERIALS FOR TEACHING COMPUTER EDUCATION

SECTION A: PERSONAL INFORMATION

GENDER: MALE ( ) FEMALE ( )

CLASS LEVEL: ( ) JSS1 ( ) JSS2 ( ) JSS3

Response Key:

SA = Strongly Agree
A = Agree
D = Disagree
SD = Strongly Disagree

Section B: Availability of Instructional Materials

S/N	Items	SA	A	D	SD
1	Computers and laptops are adequately available in my school for teaching computer education.				
2	Computer textbooks and lesson manuals are readily available for classroom use in my school.				
3	Projectors and display screens are available for teaching				

	computer-related topics in my school.				
4	Functional computer laboratories exist in my school for computer instruction.				
5	Instructional softwares like typing tutors and other educational programs are available for use during lessons in my school.				

Section C: Accessibility of Instructional Materials

S/N	**Items**	**SA**	**A**	**D**	**SD**
1	Students have regular access to computers during computer education classes in my school.				
2	Teachers can easily access the instructional materials needed for lessons in my school.				
3	The computer laboratory is always open and accessible for teaching and learning in my school.				
4	Internet facilities are accessible to both teachers and students for computer-based activities in my school.				
5	Instructional materials are evenly distributed and accessible to all junior classes in my school.				

Section D: Utilization of Instructional Materials

S/N	Items	SA	A	D	SD
1	Teachers make regular use of computers and digital tools when teaching computer education in my school.				
2	Instructional materials are used in my school in a way that enhances students' understanding of computer concepts.				
3	In my school, teachers frequently demonstrate practical computer skills using available materials.				
4	Students in my school are given opportunities to practice what they are taught using instructional materials.				
5	Teachers in my school integrate instructional software and multimedia into their computer lessons.				

Section E: Impact of Instructional Materials on Students' Academic Performance

S/N	Items	SA	A	D	SD
1	Instructional materials help me understand computer lessons better.				
2	The use of instructional materials has improved my performance in computer education tests.				
3	Practical use of computers during lessons increases my interest in the subject.				
4	Access to instructional materials motivates me to study computer education more effectively.				
5	The availability and use of instructional materials positively influence my overall academic achievement in computer education.				