

**TEACHERS' COMPETENCIES AND LEARNING
OUTCOMES OF JUNIOR SECONDARY STUDENTS IN
COMPUTER STUDIES IN AYEDAADA LOCAL
GOVERNMENT AREA, OSUN STATE**

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Abstract

One major factor affecting students' performance at school is teachers' competence, particularly those related to computers, since teachers need to know how to teach Computer Studies effectively. Thus, this research aimed to investigate the influence of teachers' competencies on students' academic performance in Computer

Studies at public junior secondary schools in Ayedaade Local Government Area, Osun State. Specifically, the research focused on teachers' subject matter knowledge, teaching skills, assessment skills, and computer/technical skills. Descriptive research design was used. A sample of 120 respondents was selected using stratified random sampling. Data were collected using the Teachers' Competency Questionnaire (TCQ) and the Computer studies Achievement Test (CSAT). Descriptive statistics and Pearson Product-Moment Correlation were used to analyze the data. Findings showed a high level of teachers' subject matter knowledge and teaching skills, but moderate ICT skills. Also, there was a significant positive relationship between teacher competencies and students' academic performance in Computer Studies ($r = 0.612, p < 0.05$). This shows that teachers' competencies are related to students' performance. Therefore, there is a need for ongoing professional development and better ICT support to enhance teaching effectiveness and students' performance in Computer Studies.

Keywords: Teachers' Competencies; Academic Performance; Computer studies; ICT Competence; Junior Secondary Schools.

Introduction

Education has become one of the main pillars of the development of a nation. This is mainly because it prepares students with knowledge and skills to survive in a technology-oriented society. Digital literacy, in Nigeria, has become a part of the Basic Education Curriculum at the Junior Secondary School (JSS) level, with the integration of Computer Studies into their curriculum. The subject was introduced by the National Educational Research and Development Council (NERDC) in order to provide students with essential skills to participate in the 21st-century digital economy. These include knowledge of Information and Communication Technology (ICT), computational thinking, and problem-solving skills (NERDC, 2022). The skills of teachers who teach Computer Studies will play a significant role in the ability to meet the curriculum objectives. The abilities of teachers include subject competence, pedagogical

competence, assessment competence, classroom management and the application of teaching materials. These competencies have an impact on the quality of instruction, student involvement, and the attainment of learning goals. Thus, teacher competence is considered as one of the primary factors that affect students' learning outcomes. Internationally, teachers' competencies are understood as their ability to effectively activate knowledge, skills, attitudes, and values in a dynamic classroom setting, which has been equally reflected in teacher effectiveness-related studies in Nigeria (OECD, 2021).

Although Computer Studies is part of our national curriculum, it is not uniformly implemented at state and local levels. The government's efforts are aimed at improving students' education by investing more in schools' infrastructure, books and teaching materials, along with teachers' development programs. For instance, the education sector plan in Osun State includes plans to improve school infrastructure and provide for instructional materials. Nevertheless, there are still some differences between politicians' goals and students' experiences at school. They are also related to the availability of qualified teachers, resources and professional development opportunities. Differences may affect the quality of Computer Studies instruction and, consequently, students' academic performance in Computer Studies. Academic performance of Computer Studies is a measure of how much knowledge, understanding and skills are demonstrated by students on this course during study and evaluation process. It is an important learning outcome because it reflects the extent to which the objectives of teaching and learning in Computer Studies are being achieved. (Osun State Ministry of Education, 2024).

The problem of effective teaching and learning of Computer Studies in Junior Secondary Schools has been reported in various studies that have been conducted in Nigeria. The challenges are low teacher preparation; lack of functional computer facilities, lack of instructional materials, and some teachers lack the subject matter skills. If these constraints are not properly addressed, they will likely

create challenges for effective curriculum implementation and consequently impact students' academic performance. (Adegbola, 2018).

While some of the factors influencing teaching and learning of Computer Studies have been identified in other studies, there is limited evidence of the relationship between teachers' competencies and students' learning outcomes in public Junior Secondary Schools of Ayedaade Local Government Area in Osun State. There are variations between localities in the quality of the education provided, in the way the education is provided and in the provision of learning resources. Consequently, the results of other sites may not be a representative sample of schools in the study area. The lack of knowledge highlights the need to provide empirical evidence to ascertain if the competencies are related to the academic performance of pupils in the study context in Computer Studies.

This study therefore focuses on the correlation between the competencies of teachers and the outcome of learning of the learners of Junior Secondary School in Computer Studies in Ayedaade Local Government Area of Osun State, Nigeria. Specifically, this study investigates the teachers' competence with respect to subject matter, pedagogical competence, assessment competence and ICT/technical skills, and the relationship between these competencies and students' performance in public secondary schools.

Research Objectives

The main objective of this study is to examine the relationship between teachers' competencies and the learning outcomes of students in Computer studies in Junior Secondary Schools in public/government schools in Ayedaade LGA, Osun State. While the specific objectives are to:

- i. Describe the levels of teachers' competencies in Computer studies among JSS teachers in public schools in Ayedaade LGA (covering subject knowledge, pedagogical competence, assessment competence, and ICT/technical skills.

- ii. Examine the relationship between teachers' competencies and students' academic performance in Computer Studies.

Research Questions

1. What are the levels of teachers' competencies in Computer studies among Junior Secondary School teachers in public schools in Ayedaade LGA?
2. Is there any significant relationship between teachers' competencies and students' academic performance in Computer studies?

Technological Pedagogical Content Knowledge (TPACK) Framework

TPACK was developed from Shulman's concept of pedagogical content knowledge and later expanded upon by Koehler and Mishra to describe the knowledge teachers need to effectively integrate technology (Koehler et al., 2013). Koehler, Mishra, and Cain (2013) define TPACK as a model that includes technological knowledge, pedagogical knowledge, and content knowledge. There are three types of knowledge to consider in teachers' knowledge. Content Knowledge (CK) is knowledge of a particular topic that teachers need to know and understand when teaching it. For a Computer Studies teacher, this includes knowledge about computers, computer programmes, computer processes, and skills. Pedagogical Knowledge (PK) is knowledge about teaching and learning processes, including instructional strategies, classroom management, and assessment. Technological Knowledge (TK) is knowledge about technology and its proper use.

TPACK is more than just a collection of these three types of knowledge as separate entities. The central thesis of this framework is that effective technology-enabled education results from the interaction between technology, teaching methods, and subject matter. Thus, a teacher should know not just about technology but also how to use it pedagogically to teach a particular subject matter. Koehler, Mishra, and Cain (2013) describe this interaction as producing the flexible knowledge required for teaching with

technology. It is especially suitable for this research project as Computer Studies itself is a technology-based discipline. A Computer Studies teacher needs to know about the subject, but also needs to know how to teach it through appropriate learning experiences and use technology effectively. For instance, knowledge of a computer programme is not enough to be an effective teacher. The educator should also know how to explain the application, demonstrate its use, provide students with opportunities for practice, and assess whether they have learned what was taught. The relevance of TPACK is further supported by Voogt, Fisser, Pareja Roblin, Tondeur, and van Braak (2013), whose review of the TPACK literature concluded that technology integration in education involves alignment among content, pedagogy, and technology. Their report also stated that teachers' knowledge and beliefs about education and technology are related to decisions regarding teaching with technology.

TPACK is therefore suitable for explaining why teachers' competencies may be associated with students' learning outcomes in Computer Studies. If an educator has sufficient knowledge of their field, they will be able to explain concepts correctly and effectively. If an educator has knowledge of education, they can choose a teaching method that is appropriate for their students' needs and goals. If there is sufficient technological expertise, a teacher may utilise appropriate electronic tools and resources for teaching purposes. The interaction of these types of knowledge might then lead to better learning experiences. TPACK also helps explain why having one type of skill may not be enough. A teacher may have good computer skills but poor teaching skills, making them unable to teach Junior Secondary School students effectively. Conversely, a teacher might have some basic knowledge of Computer Studies and technology but not enough knowledge to teach the subject effectively. This problem is addressed through TPACK, which focuses on the integration of all three domains instead of considering them individually.

Methodology

A descriptive survey research design was used in this study. The

design was felt to be appropriate because it allowed for quantitative data to be gathered about the existing conditions, perceptions and the relationship between the competence of the teachers and the learning outcomes of their students in the area of Computer Studies, without altering the study variables (Creswell & Creswell, 2018; Cohen et al., 2018). It also ensures that standard forms and similar tools (e.g., questionnaires, achievement tests) can be used to gather information from teachers and students. All computer studies teachers and all students in public Junior Secondary Schools in Ayedaade Local Government Area, Osun State, were the population for this study. The records of the Osun State Ministry of Education (2024) shows that there are seven public Junior Secondary Schools with a population of students between 1000 – 1250 in the Local Government Area, whereas about 13 Computer Studies teachers are currently recruited for JSS I – JSS III. The data were collected by the following instruments: Teachers' Competency Questionnaire (TCQ) and Computer Studies Achievement Test (CSAT). The Teachers' Competency Questionnaire (TCQ) was a structured questionnaire developed by the researcher based on the objectives of the study and guided by the existing teacher competency frameworks such as the OECD Teacher Competency Model (OECD, 2021) and relevant Nigerian studies (Adewale & Olatunji, 2020; Musa & Nwosu, 2021). The questionnaire was divided into two sections. Section A obtained demographic data from the respondents, such as gender, academic qualification and teaching experience. The second section (B) assessed teacher competencies and consisted of 10 items. The items in the questionnaire were measured with a Likert scale ranging from 5 (Strongly Agree) to 1 (Strongly Disagree). The researcher designed a Computer Studies Achievement Test (CSAT) to measure the achievement of learning outcomes in Computer Studies. The instrument was made up of 10 multiple-choice questions on a topic chosen in the Junior Secondary Computer Studies curriculum (NERDC, 2022). The test was designed to give an objective measure of students' academic performance and was given under standard examination conditions. This study used a multistage sampling technique. The first stage involved selecting 5 Public Junior

Secondary Schools from the 7 schools in Ayedaade Local Government Area in order to get equal probability of selection of the schools. The second stage of the study involved all the Computer Studies teachers available in the selected schools, as they are relatively small in number and were approached by a census approach. A total of 40 students were selected from each of the 5 schools by simple random sampling for the final stage to give a total of 200 students. Adequate representation of students in JSS I, JSS II and JSS III was ensured by the sampling procedure thus improving the representativeness of the sample. The face and content validity was determined by experts for both the Teachers' Competency Questionnaire (TCQ) and the Computer Studies Achievement Test (CSAT). Three experts in Measurement and Evaluation, Educational Technology and Science and Technology Education (Computer) from Osun State University, Osogbo and Obafemi Awolowo University, Ile-Ife, respectively, evaluated the instruments. The results of their observation and recommendation about the clear, relevant, appropriate, and objectives-relevancy of the instrument items were taken into consideration to increase the quality and adequacy of the instrument before its actual administration. Furthermore, the instrument was trial-tested on 10 Computer Studies teachers from another Local Government Area (LGA) that does not form part of the main study to determine the reliability of the Teachers' Competency Questionnaire (TCQ) which was used for the study. The Cronbach's Alpha coefficient was 0.70 which is acceptable for internal consistency (Taber, 2018). The reliability of the Computer Studies Achievement Test (CSAT) was calculated by using the Kuder-Richardson Formula 20 (KR-20) which is suitable for dichotomously scored test items. The instrument had a reliability coefficient of 0.75, which means that the instrument has satisfactory reliability in measuring students' academic achievement. The data collected was coded, entered and analysed using Statistical Package for the Social Sciences (SPSS). The descriptive data, in the form of frequencies, percentages, means and standard deviations, were presented to answer the research question on the level of teachers' competencies.

Ethical Considerations

The ethical standards were carefully followed in the completion of the study. Prior to the research, formal permission was secured from the Osun State Ministry of Education and the school authorities of the participating schools. All participants were informed about the study and provided informed consent to participate before the study began. There was full voluntary participation with each participant being made aware of her/his right to withdraw from the study at any point of time without any consequences. Confidentiality and anonymity of the collected data were maintained throughout the study by coding the data and avoiding any personal identifiers from being included in the analysis and reported findings. All data collected from participants was collected for academic research and kept confidential.

Results

Table 1: Socio-Demographic Characteristics of the Respondents

Category	Frequency	Percentage (%)
Gender		
Male	5	45.50
Female	6	55.50
Age		
Below 25 years	1	9.09
25–34 years	4	36.36
35–44 years	5	45.45
45 years and above	1	9.09
Qualification		
NCE	1	9.09
B.Ed/B.Sc(Ed)	8	72.72
M.Ed	2	18.18
Teaching Experience		
1–5 years	2	18.18
6–10 years	5	45.45
11–15 years	3	27.27
Above 15 years	1	9.09

Table 1 shows the socio-demographic of the Computer Studies teachers in the study. These results show that there is a relatively even distribution of males and females with 6 female teachers (55.50%) and 5 male teachers (45.50%). It means that there is a good representation of both male and female teachers in the teaching of Computer Studies in the selected Public Junior Secondary Schools. As to the age distribution, most of the respondents (5, 45.45%) were in the age group of 35 to 44 years, and 4 (36.36%) were in the age group of 25 to 34 years. Only 1 (9.09%) respondent was below 25 years, while another 1 (9.09%) was 45 years and above. The high proportion of teachers in the age group 25–44 years suggests that the majority of the respondents are in their productive working life, which could have a positive impact on their teaching quality and engagement in the classroom. The educational qualifications of the respondents reveal that most of them (8, 72.72%) had Bachelor's degree (B.Ed. / B.Sc. (Ed.)), followed by Master's degree (M.Ed.) (2, 18.18%). One (9.09%) of the teachers held the Nigeria Certificate in Education (NCE). This distribution shows that the majority of the teachers have the minimum qualification needed for teaching at Junior Secondary School level and a proportion have reached a post graduate level.

In terms of teaching experience, 5 (45.45%) had experienced 6–10 years of teaching, 3 (27.27%) have experienced 11–15 years of teaching, 2 (18.18%) have 1–5 years of teaching experience, 1 (9.09%) have more than 15 years of teaching experience. The overall results indicate that 9 (81.82%) of the teachers have more than five years of teaching experience, which implies that the majority have a long experience of teaching that could have an impact on the effective teaching of Computer Studies. Taking these biodata together it showed that the respondents were a fairly experienced and professionally qualified group of Computer Studies teachers.

Research Question One: What is the level of teachers' subject-matter competency in teaching Computer studies at Junior Secondary School level?

Table 2: Level of Teachers Competency in Computer Studies

Statement	Mean	SD	Interpretation
Demonstrates adequate knowledge of the Junior Secondary School Computer studies curriculum	3.52	0.50	High
Explains fundamental Computer studies concepts clearly and accurately	3.48	0.58	High
Demonstrates confidence in teaching both theoretical and practical aspects of Computer studies	3.38	0.62	High
Develops detailed and well-structured lesson plans	3.41	0.52	High
Applies learner-centred instructional strategies	3.32	0.58	High
Provides effective guidance and support during practical activities	3.45	0.56	High
Adapts instructional methods to students' learning needs and abilities	3.28	0.65	High
Encourages active student participation and engagement during lessons	3.42	0.61	High
Regularly updates professional knowledge and skills in Computer studies and ICT	3.18	0.67	High
Integrates relevant real-life examples and practical applications into Computer studies instruction	3.29	0.66	High

The results presented in Table 2 indicate that teachers demonstrated a high level of competency in Computer Studies, with a grand mean of 3.37 (SD = 0.59). This result indicates that most of them had the necessary skills for teaching Computer Studies to students at the Junior Secondary School level. However, the differences in the mean scores across the competency indicators provide further insight into the areas in which teachers appeared to be stronger and those that may require greater attention.

The highest mean score was recorded for teachers' knowledge of the Junior Secondary School Computer Studies curriculum (M = 3.52, SD = 0.50). This implies that teachers had adequate knowledge of their subject matter and what was taught to students. The high rating may indicate that teachers were more familiar with the prescribed Computer Studies content as a result of their regular engagement with the curriculum and classroom teaching. Good knowledge of a subject's curriculum is important because it is necessary for teachers to know what their students need and how they should teach it effectively by explaining concepts clearly, organising classes, and guiding students during practical work. Thus, this result shows that teachers' knowledge of Computer Studies provides a good basis for effective teaching at the Junior Secondary School level.

The high mean score for explaining fundamental Computer Studies concepts clearly and accurately (M = 3.48, SD = 0.58) further supports this finding. This means that teachers could teach fundamental ideas effectively and correctly from the students' point of view. Similarly, the high rating for providing effective guidance and support during practical activities (M = 3.45, SD = 0.56) indicates that teachers were able to support students when carrying out practical tasks. These skills are especially relevant to Computer Studies because teachers need to have both theoretical knowledge and practical skills. It means that teachers' knowledge of a particular topic and their ability to teach it practically would help students understand better while participating in Computer Studies classes.

Also, the findings indicate the competence of teachers with respect to teaching skills. Encouraging active student participation and engagement during lessons (M = 3.42, SD = 0.61), developing detailed and well-structured lesson plans (M = 3.41, SD = 0.52), and demonstrating confidence in teaching both theoretical and practical aspects of Computer Studies (M = 3.38, SD = 0.62) all recorded high mean scores. This means that most teachers prepared

lesson plans for class, engaged pupils actively, and had confidence in teaching various aspects of a topic. The high rating for applying learner-centred instructional strategies ($M = 3.32$, $SD = 0.58$) also suggests that teachers made use of approaches that encouraged students to participate in the learning process. These skills indicate that these educators were knowledgeable about the subject and had the teaching abilities to apply that knowledge within a classroom setting. However, regularly updating professional knowledge and skills in Computer Studies and ICT recorded the lowest mean score ($M = 3.18$, $SD = 0.67$), although it was still within the high competency category. The relatively lower score may indicate that there was less updating of knowledge and ICT skills by teachers compared with their knowledge of the existing curriculum content. This may be important in Computer Studies because the subject is closely related to changes in technology, software, and digital practices. Thus, teachers should have access to regular courses and workshops so that they can stay up to date with new technologies (ICT). This means that although teachers are generally competent, more focus on ongoing ICT-related professional development would help them teach Computer Studies more effectively in the current context. The relatively lower mean scores for adapting instructional methods to students' learning needs and abilities ($M = 3.28$, $SD = 0.65$) and integrating relevant real-life examples and practical applications into Computer Studies instruction ($M = 3.29$, $SD = 0.66$) also provide areas that may require further attention. Although these areas received good ratings, they were still below those for teachers' knowledge of the curriculum and explanation of basic principles. This may indicate that teachers were more confident in what they teach than in adapting instruction to different learner needs or consistently connecting Computer Studies concepts with practical situations outside the classroom. Improving these areas would help to make Computer Studies education more applicable to students and provide them with more opportunities to apply their knowledge practically.

The standard deviation values, ranging from 0.50 to 0.67, indicate

relatively low variability in the responses. This implies a similar perception among respondents regarding their teachers' skills in each area tested. In general, the results show that teachers of Computer Studies at the Junior Secondary School level demonstrated good competency, especially with respect to their knowledge of the curriculum and subject matter; however, their continuous updating of ICT and professional knowledge was rated lowest. Thus, the results suggest that although most teachers have the necessary skills for teaching Computer Studies, professional development, especially in ICT and current technological practices, could enhance their effectiveness in implementing the curriculum.

Research Question Two: Is there any significant relationship between teachers' competencies and students' academic performance in Computer studies?

Variables	Pearson Correlation ®	p-value	N
Teachers' Competencies vs. Students' Academic Performance	0.612	0.000	11

Table 3 presents the results of the Pearson Product-Moment Correlation analysis conducted to determine the relationship between teachers' competencies and students' academic performance in Computer Studies. The analysis revealed a positive and statistically significant relationship between teachers' competencies and students' academic performance ($r = 0.612$, $p = 0.000$). Since the p-value is less than the 0.05 level of significance, the relationship is statistically significant. The positive correlation coefficient indicates a relationship between a high level of teacher competency and better academic performance among Junior Secondary School students in Computer Studies. The result indicates that an improvement in teachers' skills would likely be associated with better student performance. Although the association between the two variables is moderate in strength, there is an important relationship

between them for this research area. These results show a correlation between teachers with better knowledge of their subject matter, better teaching techniques, better evaluation methods, and sufficient computer skills and students' academic performance. Consequently, teachers' competencies are an important factor in students' performance in Computer Studies at public Junior Secondary Schools in Ayedaade Local Government Area.

Discussion of Findings

The results from this research showed that teachers in the selected public Junior Secondary Schools had high competency levels in Computer Studies, with an overall grand mean of 3.37. In particular, the participants had good levels of competence with respect to their subject matter knowledge, lesson design, student-centred teaching techniques, practical skills, classroom participation, and test administration. The results indicate that these educators have the necessary skills to implement a Computer Studies programme successfully. The result is consistent with the findings of Nwosu and Onah(2020), who reported that teachers' competencies significantly influence the quality of classroom instruction and students' academic achievement in science-related subjects. The agreement between the current finding and the previous study may be due to the fact that teachers' knowledge of their subject and their ability to plan and deliver lessons are important across different school subjects. However, the current study is based specifically on Computer Studies teachers in public Junior Secondary Schools in Ayedaade Local Government Area, whereas Nwosu and Onah (2020) studied science-related subjects more broadly. The high level of competency found in the present study may therefore reflect the teachers' familiarity with the Computer Studies curriculum and their experience in teaching the subject within the local school context. The finding also supports the constructivist learning theory proposed by Vygotsky(1978), which emphasizes that meaningful learning occurs when teachers provide appropriate support and guidance that enables students to

actively construct knowledge.

Although all competency indicators were rated high, the results showed that regular updating of professional knowledge and ICT skills had the lowest mean score among the assessed competencies. This finding is consistent with Okeke et al.(2024), who emphasized that continuous teacher training and digital capacity-building programmes are essential for maintaining instructional effectiveness in technology-related subjects. The agreement may be explained by the rapidly changing nature of ICT, which requires teachers to continuously update their knowledge and skills even when they already possess adequate knowledge of the existing curriculum. Nevertheless, since this indicator also had a high mean score, it means that teachers were not deficient with regard to their knowledge of information and communication technology. In the context of public Junior Secondary Schools in Ayedaade Local Government Area, opportunities for regular professional development may be affected by access to training programmes, current ICT resources, and other forms of institutional support. Therefore, offering periodic computer technology training to teachers will enable them to stay current with technological advancements and changes within Computer Studies.

Furthermore, the study found a statistically significant positive relationship between teachers' competencies and students' academic performance in Computer Studies ($r = 0.612$, $p < 0.05$). The result shows a relationship between higher teacher competencies and better students' academic achievement at the Junior Secondary School level. The result is consistent with Park (2020), which found that teacher quality is an important predictor of students' academic success in ICT-related subjects. The agreement may be because teachers who have adequate subject knowledge, pedagogical skills, assessment skills, and ICT competencies are better positioned to explain concepts, guide practical activities, assess students appropriately, and respond to students' learning needs. However, the strength of the

relationship in the present study may also be influenced by the specific context in which the study was conducted. The availability of computers, textbooks, and other educational resources, as well as the extent to which teachers' skills are supported, may affect students' academic performance. Thus, although competent teachers are important, their competencies may have greater effects on students' performance when they are supported with adequate teaching and learning resources.

In general, these results are consistent with earlier studies showing that teacher competencies are significant to effective instruction and better student achievement. Nevertheless, these results also indicate how teachers operate within their environment when interpreting that relationship. High competency among teachers at these public Junior Secondary Schools does not imply that all areas of Computer Studies are equally strong, since there is a lower average for regular updating of ICT and professional knowledge, which indicates an area that needs more attention. Thus, these results indicate that enhancing teachers' skills should not be limited to current subject and teaching abilities but should also involve ongoing training opportunities and sufficient institutional support so that they can utilize these skills effectively within Computer Studies classrooms.

Conclusion

This research was concerned with the relationship between teacher competency and student performance of Junior Secondary School students in Computer Studies at public schools in Ayedaade Local Government Area, Osun State. The results showed that the teachers had generally good levels of competency in all areas of assessment, such as subject matter expertise, teaching skills, assessment skills, and computer/technical skills. This shows that they were well-prepared to teach Computer Studies effectively.

This research also found an important correlation between

teachers' competencies and students' achievement in Computer Studies. These results show a correlation between better teacher competency and better student performance. This highlights the important role of qualified educators in facilitating effective education delivery and improving students' academic performance.

This research contributes knowledge by providing empirical data about the relationship between teachers' competencies and students' performance in Computer Studies at Junior Secondary Schools in Ayedaade Local Government Area. It contributes to existing knowledge by providing data from an area with limited empirical evidence on this relationship. The results may also be useful to educational stakeholders in planning teacher development and support programmes for Computer Studies.

Nevertheless, this research was restricted to some selected public Junior Secondary Schools in Ayedaade Local Government Area of Osun State. Therefore, the findings may not be generalised to private schools or other Local Government Areas without caution. In addition, this research was concerned with the relationship between teachers' competencies and students' achievement, not other variables that could affect students' performance, such as the availability of computers, textbooks, school facilities, and students' characteristics.

In general, this research concludes that teachers' competencies are among the factors that affect students' performance in Computer Studies at Junior Secondary Schools in Ayedaade Local Government Area. Therefore, strengthening teachers' competencies through regular professional training and good organizational support should be encouraged so that these competencies can be maintained and used to improve students' performance in Computer Studies.

Recommendations

Accordingly, based on the findings from this research work, it is

suggested that the Osun State Ministry of Education and other educational institutions should continue to support and enhance teachers' competencies through periodic training programmes. The courses should concentrate on improving subject matter knowledge, teaching techniques, assessment methods, and computer/technical skills to ensure effective delivery of Computer Studies by teachers.

Since this research found a lower rating for continuous updating of ICT knowledge and skills among teachers, they should receive periodic training, workshops, and retraining programmes on new technologies and innovative teaching methods. This will help them to keep up with developments in Computer Studies and enhance the quality of classroom teaching.

Also, good-quality educational infrastructure, such as computer laboratories with functional computers and other ICT facilities, should be provided by the government and schools. Sufficient educational materials will enhance teachers' competencies and support better implementation of the Computer Studies programme.

Finally, as this research found an important correlation between teachers' competencies and students' achievement, schools should have periodic evaluation programmes along with mentoring sessions for teachers' development. These programmes will identify areas that need improvement and offer appropriate assistance to teachers, thereby contributing to better student performance in Computer Studies.

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