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Assessment of Teachers' Attitude towards Application of ICT in Teaching Junior Secondary School Students in Selected Secondary Schools in Ilesa, Osun State Nigeria

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Abstract: *This study assessed junior secondary school teachers' attitudes toward the application of Information and Communication Technology (ICT) in selected schools in Ilesa, Osun State, Nigeria. Specifically, it examined teachers' knowledge of ICT, their attitudes toward its use in teaching, the factors influencing these attitudes, and the challenges faced in ICT implementation. A cross-sectional descriptive design was adopted, involving 113 teachers from seven randomly selected secondary schools. Data were collected using a structured questionnaire and analyzed with SPSS version 23, employing descriptive and inferential statistics. Findings revealed that while teachers possessed foundational knowledge of ICT and recognized its benefits for enhancing teaching efficiency and student engagement, practical competencies were limited. Positive attitudes were evident; however, effective ICT adoption was constrained by inadequate resources, limited training, unstable power supply, technical issues, and insufficient administrative support. Factors such as access to reliable internet, training opportunities, peer collaboration, and manageable workloads significantly influenced teachers' attitudes, whereas personal experience and interest in technology were less impactful. The study concluded that although teachers were willing to integrate ICT into teaching, structural and institutional barriers hindered its effective utilization. To enhance ICT adoption, the study recommends continuous professional development, improved infrastructure and technical support, formal curriculum integration of ICT, and supportive policies with incentives for teachers.*
Keywords: ICT integration, Teachers' attitudes, Students, Educational technology, ICT challenges

INTRODUCTION

The integration of Information and Communication Technology (ICT) in education has emerged as a transformative force in teaching and learning worldwide. ICT tools, including computers, interactive whiteboards, and online educational platforms, have redefined traditional pedagogical approaches by

enhancing lesson delivery, fostering student engagement, and promoting independent learning. In the 21st-century classroom, ICT plays a critical role in bridging gaps in knowledge dissemination and equipping learners with skills essential for the digital age (UNESCO, 2021). Recognizing this, governments and educational institutions globally have identified ICT as a cornerstone for achieving quality education and preparing students to compete effectively in a knowledge-driven economy. In Nigeria, the integration of ICT into education has seen mixed results. Government initiatives, such as the Nigerian ICT Policy and partnerships with private organizations, have sought to provide digital infrastructure for schools. However, at the secondary school level, ICT implementation remains limited. Challenges including inadequate funding, lack of teacher training, and insufficient facilities continue to impede effective technology adoption. Oluwalola et al. (2022) noted that many Nigerian schools lack the resources necessary to utilize ICT tools effectively, restricting both teachers and students from benefiting fully from modern pedagogical innovations.

Teachers play a pivotal role in ICT integration, as their attitudes, knowledge, and confidence significantly influence how technology is adopted in teaching. Research by Adeyemo et al. (2021) underscores that teachers with positive attitudes toward ICT, coupled with adequate training, are more likely to implement innovative instructional practices that enhance learning outcomes. Conversely, teachers with limited ICT knowledge or negative attitudes may resist technology adoption, thereby constraining its potential benefits in educational settings.

In Osun State, the government has initiated programs to enhance ICT adoption in public secondary schools. The Opon Imo (Tablet of Knowledge) initiative, for instance, aimed to provide digital learning tools to teachers and students. Nevertheless, its impact has been limited due to logistical challenges, insufficient technical support, and inadequate teacher preparedness. Awosika et al. (2023) observed that although some teachers in Osun State exhibit enthusiasm toward ICT integration, many continue to face obstacles such as limited access to computers and unreliable internet connectivity. In Ilesa, a city within Osun State, ICT adoption in junior secondary schools mirrors the broader challenges observed nationwide. Public schools often encounter resource and infrastructure limitations, hindering effective ICT utilization, whereas private schools tend to have better access to technology, creating disparities in educational outcomes. Oyeniran et al. (2023) highlighted that this inequality underscores the urgent need for targeted interventions to support ICT adoption in under-resourced schools.

The advantages of ICT integration in education are well-documented. ICT tools facilitate active learning, improve access to a wide range of educational resources, and encourage collaboration among students. Interactive whiteboards and educational software enable teachers to present complex concepts more effectively, while online platforms support self-paced learning and enhance digital literacy skills critical for future employment. However, realizing these benefits requires addressing the barriers that limit ICT adoption in schools. Teachers' attitudes toward ICT are influenced by several factors, including their level of knowledge, access to resources, and institutional support. Positive attitudes correlate with a willingness to embrace technology, whereas negative attitudes often arise from fear of failure or resistance to change. Akintola and Ajayi (2021) emphasized that professional development programs focusing on ICT skills are crucial for cultivating favorable attitudes among teachers. Such programs enhance teachers' confidence and provide practical strategies for integrating technology into instructional practice.

The availability of resources also significantly affects ICT adoption. Schools equipped with computer labs, reliable internet connectivity, and proper maintenance services are better positioned to implement

ICT effectively. Unfortunately, many Nigerian schools, particularly public ones, face shortages in these areas, creating a digital divide that favors students in resource-rich schools over those in underfunded institutions. Addressing these disparities requires coordinated efforts from governments, private organizations, and community stakeholders to ensure equitable access to ICT resources. Institutional support plays a complementary role in shaping teachers' ICT attitudes. Schools that prioritize technology integration by offering training, technical assistance, and incentives for teachers tend to experience higher adoption rates. Ojo et al. (2022) argued that fostering a culture of innovation within schools is essential for sustaining ICT use. Without such support, teachers may encounter resistance from colleagues or administrators and struggle to incorporate ICT effectively into their teaching.

Despite the benefits of ICT, teachers often face challenges such as limited technical expertise, insufficient time to develop ICT-based lesson plans, and infrastructural barriers, including frequent power outages and high maintenance costs (Salami & Fagbohun, 2023). These obstacles highlight the need for a holistic approach to ICT integration that addresses technical, financial, and institutional constraints. ICT integration has the potential to revolutionize teaching and learning by making education more interactive, inclusive, and aligned with the demands of the digital era. However, achieving this potential depends on understanding and addressing the factors that shape teachers' attitudes and capacity for ICT adoption. This study aims to assess teachers' attitudes toward ICT application in teaching junior secondary school students in selected secondary schools in Ilesa, Osun State. By examining these attitudes and identifying barriers and enablers, the research seeks to provide actionable insights for enhancing ICT integration in Nigerian secondary schools.

The main aim of this study was to assess teachers' attitude towards application of ICT in teaching junior secondary school students in selected secondary schools in Ilesa Osun State. The specific objectives of this study were as follows:

1. To assess the knowledge of ICT among junior secondary school teachers in Ilesa, Osun State.
2. To assess the attitude towards application of ICT in teaching among junior secondary school teachers in Ilesa, Osun State.
3. To identify factors that influence the attitude towards application of ICT in teaching among junior secondary school teachers in Ilesa, Osun State.
4. To determine the challenges faced by teachers in implementing ICT in their teaching practices.

METHODS AND MATERIALS

This study adopted a cross-sectional descriptive research design to assess the knowledge, attitudes, influencing factors, and challenges associated with ICT application among junior secondary school teachers in Ilesa, Osun State. The target population comprised teachers from selected secondary schools in Ilesa East Local Government Area (LGA). Out of the 14 schools in the LGA, seven schools were randomly selected using a balloting technique, and the teachers within these schools formed the study participants. The selected schools included St Margaret's School, CAC Commercial High School, Ilesa Grammar School, Obokun High School, United Anglican/Methodist Grammar School, Muslim Comprehensive College, and Apostolic Grammar School. A simple random sampling method

was employed to ensure that every teacher in the selected schools had an equal chance of being included in the study.

The sample size was determined using Taro Yamane's formula at a 5% level of significance. From a total population of 138 teachers across the seven schools, the calculated sample size was 103. Considering a 10% attrition rate, the final sample size was adjusted to 113 teachers. The sample was proportionally allocated among the schools based on their respective teacher populations, ensuring a representative distribution. This sampling procedure allowed the study to capture a diverse range of experiences and perspectives regarding ICT use in junior secondary school teaching.

Data were collected using a structured questionnaire adapted from previous studies on ICT integration in education. The questionnaire comprised five sections that addressed socio-demographic information, teachers' ICT knowledge, attitudes toward ICT application, factors influencing these attitudes, and challenges faced in ICT adoption. To ensure validity, face validity was confirmed through expert review, ensuring clarity and logical structure, while content validity was verified by subject matter experts to guarantee comprehensive coverage of the study objectives. The reliability of the instrument was established using the test-retest method, administered to 11 teachers in a similar community two weeks apart, yielding a Cronbach's alpha coefficient of 0.7, which indicated adequate consistency.

Data collection was conducted over a two-week period, with the researcher and trained assistants distributing and retrieving questionnaires from the selected schools while minimizing classroom disruption. Participants were informed about the study's purpose, assured of voluntary participation, and instructed to respond anonymously. The collected data were coded, entered, and analyzed using SPSS version 23. Descriptive statistics, including frequencies, means, and standard deviations, were used to summarize socio-demographic characteristics, ICT knowledge, attitudes, and perceived challenges. Inferential analyses, such as chi-square tests, examined relationships between socio-demographic variables and attitudes toward ICT, while multiple regression analysis identified significant predictors of ICT adoption among teachers. Ethical considerations were strictly observed, including obtaining permissions from the local education authority and school administrators, securing informed consent from participants, maintaining confidentiality and anonymity, and providing feedback to the schools on the study's findings.

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RESULTS

Table 1: Socio-demographic characteristics of respondents

Variables		Frequency (N=113)	Percentages (%)
Gender	Male Female	34 79	30.1 69.9
Age (in years)	20-29 years 30-39 years 40-49 years 50 years and above	29 30 44 10	25.7 26.5 38.9 8.8
Highest Education Qualification	NCE ND/HND Bachelor's Degree Master's Degree Others (please specify)	54 52 7 - -	47.8 46.0 6.2 - -
Teaching Experience (Years)	< 1 year 1-5 years 6-10 years 11-15 years 16 years and above.	15 23 34 32 9	13.3 20.4 30.1 28.3 8.0
Marital Status	Single Married Divorced Widowed	17 34 41 21	15.0 30.1 36.3 18.6
ICT Training Attendance in the past year	Yes No	19 94	16.8 83.2
Access to personal ICT Device	Yes No	27 86	23.9 76.1
Length of ICT Usage	< 1 year 1-3 years 4-6 years > 6 years	32 35 29 17	28.3 31.0 25.7 15.0

Table 1 presents the demographic characteristics of the respondents. It provides insight into the age distribution, gender, marital status, educational level, teaching experience, ICT training in the past year, access to personal ICT device and length of ICT usage. Among the respondents surveyed (38.9%) which is the highest percentage were within the age range of 40-49 years, majority of the respondents (69.9%) were females and a little less than half of the respondents (47.8%) which is the highest

percentage had NCE as their highest educational qualification. More than a quarter of the respondents (30.1%) have at at least 6 to 10 years of teaching experience, (15%) of the respondents are single and majority of the respondents (83.2%) have not had ICT training in the past year. Lastly, a larger percentage the respondents (76.1%) don't have access to personal ICT device.

Table 2: Descriptive Analysis of Knowledge of ICT

Items	Yes	No
ICT is the use of technology to simplify complex tasks.	64(56.6%)	49(43.4%)
I understand that ICT includes tools such as computers, the internet, and projectors.	70(61.9%)	43(38.1%)
ICT can be used to improve teaching and learning outcomes in classrooms.	57(50.4%)	56(49.6%)
ICT means information, communication and technology	95(84.1%)	18(15.9%)
I know how to use basic office software (e.g., Word, Excel, PowerPoint)	39(34.5%)	74(65.5%)
I am aware that ICT can facilitate collaboration among students through digital tools.	46(40.7%)	67(59.3%)
I know how to use internet resources to find educational materials.	63(55.8%)	50(44.2%)
I am familiar with online platforms for teaching, such as Google Classroom or Zoom.	45(39.8%)	68(60.2%)
I can manage digital files and documents using online storage (e.g., Google Drive).	17(15.0%)	96(85.0%)
I am familiar with educational apps that can be used to engage students.	51(45.1%)	62(54.9%)
I know how to use email and messaging platforms to communicate professionally.	53(46.9%)	60(53.1%)

The descriptive analysis of teachers' knowledge of ICT reveals a varied understanding and familiarity with technology in educational contexts. A majority of respondents (84.1%) correctly identified ICT as information, communication, and technology, indicating a strong conceptual awareness. Over half of the teachers recognized that ICT involves tools such as computers, the internet, and projectors (61.9%), and that it can simplify complex tasks (56.6%) or enhance teaching and learning outcomes (50.4%). However, the data also indicate significant gaps in practical ICT skills. Less than half of the teachers reported proficiency in basic office software (34.5%), using internet resources to access educational materials (55.8%), online teaching platforms (39.8%), and educational apps (45.1%). Even fewer teachers could manage digital files using online storage (15.0%) or effectively communicate via email and messaging platforms (46.9%). Similarly, awareness of ICT's potential for student collaboration was limited (40.7%). These findings suggest that while teachers possess foundational knowledge of ICT concepts, their practical competencies in applying these technologies in classroom settings are limited. The inference is that without targeted professional development and hands-on training, the effective integration of ICT into teaching practices may remain constrained, potentially hindering the improvement of learning outcomes and the digital readiness of students.

Table 3: Attitude towards application of ICT in Learning

Items	Strongly disagree (%)	Disagree (%)	Agree (%)	Strongly agree (%)
I believe ICT makes teaching more efficient.	23(20.4%)	38(33.6%)	34(30.1%)	18(15.9%)
Using ICT in teaching enhances student engagement.	27(23.9%)	36(31.9%)	31(27.4%)	19(16.8%)
I am motivated to use ICT as it reduces lesson preparation time.	30(26.5%)	33(29.2%)	32(28.3%)	18(15.9%)
I find it easy to incorporate ICT into my teaching practices.	23(20.4%)	53(46.9%)	30(26.5%)	7(6.2%)
ICT makes it easier to explain complex concepts to students.	13(11.5%)	40(35.4%)	42(37.2%)	18(15.9%)
I feel confident in handling ICT tools in my classroom.	36(31.9%)	40(35.4%)	25(22.1%)	12(10.6%)
I am willing to learn new ICT tools to improve my teaching.	16(14.2%)	40(35.4%)	37(32.7%)	20(17.7%)
I believe ICT use in education is worth the time and effort required to learn it.	29(25.7%)	40(35.4%)	27(23.9%)	17(15.0%)
I am open to attending further training on ICT application in education.	34(30.1%)	40(35.4%)	22(19.5%)	17(15.0%)
ICT improves the quality of interaction between students and teachers.	20(17.7%)	35(31.0%)	38(33.6%)	20(17.7%)

The table presents teachers' attitudes toward the application of ICT in teaching junior secondary school students, revealing a mix of positive and cautious perceptions. A substantial proportion of teachers agreed or strongly agreed that ICT facilitates teaching efficiency (46%), enhances student engagement (44.2%), and makes it easier to explain complex concepts (53.1%), indicating recognition of ICT's pedagogical benefits. However, many respondents reported challenges in practical implementation, as evidenced by 67.3% indicating difficulty in incorporating ICT into their teaching and 67.3% lacking confidence in handling ICT tools. While a majority expressed willingness to learn new ICT tools (50.4%) and attend further training (34.5%), a significant proportion remained hesitant, reflecting apprehension about the time, effort, and skill required. Overall, the findings infer that although teachers in the selected schools recognize the value of ICT in improving lesson delivery and student engagement, limited confidence, technical skills, and familiarity with ICT constrain its consistent application in classrooms, highlighting the need for targeted training and institutional support to strengthen ICT integration

Table 4: Factors Influencing Attitude towards application of ICT in Learning

Items	Strongly disagree (%)	Disagree (%)	Agree (%)	Strongly agree (%)
My previous experience with ICT influences my attitude towards using it in teaching.	28(24.8%)	44(38.9%)	24(21.2%)	17(15.0%)
The availability of ICT resources in my school encourages me to use ICT.	48(42.5%)	36(31.9%)	19(16.8%)	10(8.8%)
Administrative support at my school motivates me to adopt ICT in my teaching.	42(37.2%)	40(35.4%)	21(18.6%)	10(8.8%)
Access to reliable internet in school affects my willingness to use ICT.	21(18.6%)	23(20.4%)	45(39.8%)	24(21.2%)
Regular training opportunities influence my confidence in using ICT.	18(15.9%)	34(30.1%)	40(35.4%)	21(18.6%)
My workload affects my ability to incorporate ICT into my teaching.	20(17.7%)	32(28.3%)	36(31.9%)	25(22.1%)
Availability of technical support encourages my use of ICT in the classroom.	33(29.2%)	39(34.5%)	27(23.9%)	14(12.4%)
Peer support and collaboration influence my attitude towards using ICT.	19(16.8%)	32(28.3%)	40(35.4) %)	22(19.5%)
Societal expectations on digital literacy influence my attitude towards ICT use in teaching.	23(20.4%)	21(18.6%)	41(36.3%)	28(24.8%)
Personal interest in technology positively impacts my willingness to use ICT in teaching.	35(31.0%)	46(40.7%)	22(19.5%)	10(8.8%)

The data in Table 4 indicate that multiple factors influence teachers' attitudes toward the application of ICT in teaching junior secondary school students, with varying degrees of impact. A substantial proportion of respondents reported that their previous experience with ICT affects their attitude, though 63.7% either strongly disagreed or disagreed, suggesting that prior exposure alone may not consistently translate into positive attitudes. The availability of ICT resources and administrative support appeared to have limited motivating effects, with over 70% of teachers indicating disagreement, highlighting resource constraints and inadequate institutional encouragement as potential barriers. Access to reliable internet, regular training, manageable workload, and peer support

emerged as more significant enablers, with higher percentages of agreement and strong agreement, implying that practical support, skill development, and collaborative environments enhance teachers' willingness to adopt ICT. Societal expectations and personal interest in technology also influenced attitudes, though personal interest had a higher proportion of disagreement (71.7%), indicating that intrinsic motivation may be less influential than external support factors. Overall, the inference from the data is that while individual experience and interest are relevant, structural and institutional factors such as internet access, training, workload management, and collaborative support play a more decisive role in shaping teachers' attitudes toward ICT adoption in classrooms, suggesting that interventions targeting these areas are likely to improve ICT integration in teaching practices.

Table 5: Challenges faced in Implementing ICT

Items	Strongly disagree (%)	Disagree (%)	Agree (%)	Strongly agree (%)
Lack of access to adequate ICT resources is a barrier to using ICT effectively.	14(12.4%)	19(16.8%)	18(15.9%)	62(54.9%)
Limited training opportunities hinder my effective use of ICT in teaching.	6(5.3%)	9(8.0%)	23(20.4%)	75(66.4%)
Technical issues make it difficult to use ICT consistently in my teaching.	9(8.0%)	14(12.4%)	35(31.0%)	55(48.7%)
Inadequate administrative support limits my use of ICT tools.	7(6.2%)	7(6.2%)	29(25.7%)	70(61.9%)
Unstable power supply affects my ability to use ICT tools regularly.	7(6.2%)	15(13.3%)	33(29.2%)	58(51.3%)
Lack of time for ICT integration due to a heavy teaching schedule is a major challenge.	15(13.3%)	18(15.9%)	24(21.2%)	56(49.6%)
Insufficient access to digital devices in school affects my ability to use ICT.	24(21.2%)	19(16.8%)	46(40.7%)	24(21.2%)
Fear of data security or privacy breaches discourages my use of ICT.	27(23.9%)	43(38.1%)	29(25.7%)	14(12.4%)
Inadequate access to online educational content limits my ICT use in teaching.	32(28.3%)	36(31.9%)	31(27.4%)	14(12.4%)
Limited knowledge on integrating ICT with curriculum requirements makes ICT application challenging.	11(9.7%)	19(16.8%)	48(31.0%)	35(31.0%)

The results in Table 5 indicate that junior secondary school teachers in the selected schools faced multiple challenges in implementing ICT in their teaching. A majority of respondents agreed or strongly agreed that lack of access to adequate ICT resources (70.8%), limited training opportunities (86.8%), technical issues (79.7%), inadequate administrative support (87.6%), and unstable power supply (80.5%) significantly hindered their effective use of ICT. Additionally, nearly half of the teachers cited lack of time due to heavy teaching schedules (70.8%) as a constraint, while insufficient access to digital devices showed mixed responses, with only 61.9% expressing agreement. Fewer respondents considered fear of data security (38.1%) and limited access to online educational content (39.8%) as major barriers. Notably, almost two-thirds of teachers acknowledged that limited

knowledge on integrating ICT with curriculum requirements (62%) made ICT application challenging. The findings suggest that structural, technical, and institutional factors, rather than personal reluctance or security concerns, predominantly influence teachers' ability to adopt ICT. This implies that interventions targeting infrastructure improvement, consistent training, and administrative support could substantially enhance ICT integration in junior secondary school classrooms.

DISCUSSION OF FINDINGS

The findings from this study revealed that more than half of the participants (56.6%) understood that ICT involves the use of technology to simplify complex tasks, reflecting a recognition of its potential to streamline both instructional and administrative processes. This is consistent with Adeleye et al. (2023), who found that 55.3% of secondary school teachers correctly identified ICT as a tool for simplifying tasks. Such awareness likely stemmed from practical exposure to technology in classrooms and professional development programs that highlighted the role of ICT in enhancing efficiency. Additionally, the study showed that a majority of respondents (61.9%) were aware that ICT encompasses tools such as computers, the internet, and projectors, which mirrors findings by Eze et al. (2023), where 60.7% of respondents recognized these tools as core components of ICT. The widespread use of computers and the internet in everyday life, combined with their presence in classrooms, likely reinforced teachers' understanding and familiarity with these tools. Furthermore, approximately half of the respondents (50.4%) acknowledged that ICT could improve teaching and learning outcomes, similar to Adigun (2020), who reported that 51% of teachers recognized ICT's contribution to enhancing educational performance. This awareness is likely influenced by teachers' direct experiences observing improvements in student engagement and learning outcomes when digital tools were applied effectively in classrooms.

The study also examined teachers' attitudes toward ICT application in teaching and revealed mixed perceptions. About one-third of participants (33.6%) agreed that ICT makes teaching more efficient, reflecting a belief that digital tools can reduce administrative workload and improve lesson delivery. This aligns with Okeke et al. (2021), who found that 35.1% of teachers in rural Nigerian schools perceived ICT as enhancing teaching efficiency. However, more than two-fifths of respondents (46.9%) disagreed that incorporating ICT into their teaching practices was easy, which mirrors the findings of Yusuf and Balogun (2021), where 45.7% of teachers reported difficulties in ICT integration. These challenges likely arose from limited training opportunities, inadequate access to ICT resources, and insufficient institutional support, which collectively hindered teachers' ability to adopt technology effectively in their classrooms.

Regarding factors influencing teachers' attitudes toward ICT, the findings revealed that more than two-fifths of respondents (42.5%) strongly disagreed that the availability of ICT resources in their schools encouraged ICT use. This contrasts with Eze et al. (2021), who found that 67.3% of teachers believed that resource availability positively influenced their ICT adoption. The disagreement in this study suggests that limited access to functional devices, internet connectivity, and other resources discouraged teachers from integrating ICT, as insufficient infrastructure undermines confidence and limits practical application. Additionally, two-fifths of participants (36.6%) agreed that societal expectations regarding digital literacy influenced their attitude toward ICT use, which corresponds with Adewale et al. (2023), where 55.7% of respondents highlighted that external expectations shaped their ICT adoption. Teachers who perceive digital literacy as essential for professional competence

may be more motivated to engage with ICT, demonstrating how social and professional expectations can drive technology acceptance.

The study further identified several challenges that constrained ICT implementation in classrooms. More than half of respondents (54.9%) agreed that lack of access to adequate ICT resources posed a significant barrier, consistent with Ayodele et al. (2020), where 63.2% of teachers reported similar constraints. Insufficient devices, limited internet access, and scarce educational software were cited as critical factors preventing effective technology integration. Moreover, 61.9% of respondents indicated that limited training opportunities hindered their ability to use ICT effectively, corroborating the findings of Awosika et al. (2023), where 72% of teachers identified inadequate training as a major obstacle. Teachers emphasized that without targeted training, they lacked both the technical skills and the confidence required to integrate ICT into their instructional practices, highlighting the central role of professional development in ICT adoption.

Overall, the findings demonstrate that while teachers in Ilesa possess a moderate level of knowledge about ICT and recognize its potential benefits for teaching and learning, their attitudes and adoption are constrained by structural, institutional, and technical barriers. Familiarity with ICT tools and an understanding of their educational value are not sufficient to ensure effective integration when access to resources, training, and administrative support is limited. These results underscore the importance of providing continuous professional development, ensuring adequate ICT infrastructure, and fostering supportive school environments to encourage positive attitudes and practical use of technology in classrooms. Addressing these challenges could enhance teachers' confidence, promote more widespread adoption of ICT, and ultimately improve learning outcomes in junior secondary schools, aligning with national and global educational goals.

CONCLUSION

The study concluded that junior secondary school teachers in Ilesa, Osun State, had knowledge of ICT and generally positive attitudes toward its use in teaching, but faced significant barriers. Inadequate resources, limited training, insufficient technical and administrative support, and unstable power supply hindered effective ICT integration. Despite willingness to adopt technology, structural and institutional constraints persisted. The study also found no significant relationship between teachers' years of experience and their attitudes toward ICT, nor between their ICT knowledge and classroom application.

Recommendations

1. Schools should organize continuous ICT training workshops to enhance teachers' digital skills and confidence in integrating technology into teaching and learning.
2. Governments and educational authorities should invest in reliable infrastructure, including internet connectivity, digital devices, and technical support, to facilitate effective ICT adoption in classrooms.
3. ICT should be formally integrated into the school curriculum with clear guidelines on its use in teaching and learning to ensure consistent and efficient implementation.

4. Education policymakers should establish supportive policies and incentives, such as grants, recognition programs, and mentorship opportunities, to encourage teachers to adopt and sustain ICT usage.

REFERENCES

Adebayo, T. O., & Sulaiman, M. O. (2021). Impact of ICT on student engagement and academic performance. *Journal of Educational Technology Studies, 14*(2), 35-48.

Adeleye, A., & Adebayo, T. (2023). ICT adoption in Nigerian secondary education: Teachers' attitudes and student engagement. *Educational Technology & Society, 26*(1), 45-58.

Adeoye, A., & Olusola, A. (2020). Enhancing student learning through ICT: A Nigerian junior secondary school case study. *Journal of Educational Innovation, 15*(3), 78-88.

Adesina, O. J., Adeyemi, P. T., & Ogundipe, S. L. (2021). Factors influencing teachers' attitudes toward ICT. *Journal of Educational Technology, 10*(3), 45-58.

Adewale, T. M., & Fakorede, O. J. (2023). Curriculum rigidity as a barrier to ICT integration. *International Journal of Educational Research, 17*(4), 99-108.

Adeyemi, O. O., & Fapohunda, B. A. (2022). Professional development and ICT adoption among teachers. *Nigerian Journal of Education, 13*(2), 78-89.

Adeyemo, R. T., & Bamidele, O. J. (2021). Teacher training and ICT integration in Nigerian secondary schools: A case study of Lagos State. *Journal of Educational Technology, 18*(3), 34-47.

Adigun, O., Akinyemi, F., & Adamu, K. (2020). Rural-urban disparity in ICT knowledge among secondary school teachers. *African Journal of Education, 25*(1), 12-23.

Ajayi, M. I., & Ogunlade, D. A. (2021). Knowledge and application of ICT among secondary school teachers. *Journal of Educational Studies, 15*(3), 54-69.

Akintola, F. O., & Ajayi, G. O. (2021). Bridging the digital divide: ICT adoption in public schools in South-West Nigeria. *African Journal of Digital Education, 6*(2), 45-60.

Amusa, J. B., Ogundele, R. I., & Adebayo, M. A. (2023). Building ICT competence in teachers through hands-on training. *Journal of Technology in Education, 11*(2), 31-47.

Awosika, A. O., & Folarin, S. T. (2023). Challenges of ICT adoption in Nigerian public schools: Evidence from Osun State. *Journal of Educational Development in Africa, 11*(1), 56-71.

Ayodele, A., & Abiodun, T. (2020). Infrastructure challenges in Nigerian schools. *Educational Infrastructure Journal, 8*(3), 24-38.

Babatunde, S., & Sulaiman, K. (2019). ICT literacy among secondary school teachers in Lagos. *Journal of Nigerian Education, 22*(3), 55-66.

Bello, S. A., Fapohunda, L. M., & Adeyemi, O. (2023). The role of subjective norms in ICT adoption among teachers. *Global Journal of Education, 19*(3), 88-100.

Chukwu, E., & Onwuegbuzie, I. (2023). Gender differences in ICT attitudes among Nigerian teachers. *Journal of Gender and Education,* 7(1), 20-34.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319-340. https://doi.org/10.2307/249008

Eze, C., Adegboye, O., & Chukwu, N. (2021). Factors influencing teachers' attitudes toward ICT adoption in Nigerian secondary schools. *African Journal of Digital Education, 12*(2), 102-114.

Federal Republic of Nigeria. (2020). *National Policy on Education*. Abuja, Nigeria: NERDC Press.

Ibrahim, A., Usman, F., & Bello, M. (2019). Teachers' attitudes toward ICT in northern Nigeria. *Journal of Educational Research and Development, 16*(4), 52-64.

Nwosu, K., Balogun, M., & Egunjobi, T. (2022). ICT in Nigerian education: Bridging the gap between policy and practice. *Journal of Technology Integration in the Classroom, 19*(4), 112-127.

Ojo, K. T., & Adebayo, S. F. (2022). Enhancing teacher confidence in ICT usage through professional development programs. *Contemporary Issues in Education, 14*(4), 112-125.

Okeke, C. A., Onuoha, K. M., & Adeyemi, J. A. (2021). Exploring ICT attitudes among teachers in rural Nigerian schools. *African Journal of Digital Education, 12*(2), 37-51.

Olawale, S., & Adekunle, J. (2021). Teachers' perceptions and challenges in ICT integration: A case study of Osun State. *Journal of Educational Technology Research, 18*(1), 90-99.

Olufemi, T., Amusan, O., & Adebayo, M. (2022). ICT knowledge and skill development among teachers. *African Journal of Teacher Education, 16*(2), 31-43.

Olumorin, D., Afolabi, T., & Alabi, A. (2020). Assessing ICT resources and integration in Nigerian secondary schools: A focus on Osun State. *West African Journal of Education, 24*(3), 134-147.

Oluwalola, M. A., & Adekunle, J. O. (2022). ICT resource availability and utilization in Nigerian secondary schools. *Journal of Educational Resources and Innovation, 9*(2), 78-90.

Oluwaseyi, S. M., & Bello, J. T. (2020). The effect of age on ICT attitudes among Nigerian teachers. *Journal of Educational Psychology, 18*(1), 70-84.

Onifade, A. L., & Abimbola, R. A. (2022). Addressing technical skill challenges in ICT implementation among Nigerian teachers. *Journal of Technology in Teaching, 15*(3), 41-56.

Owolabi, A. T., Oke, J. T., & Adekunle, F. A. (2020). Barriers to ICT implementation in secondary *schools* in South-West Nigeria. *Journal of Educational Technology Systems, 49*(1), 78-96.

Oyeniran, D. T., & Salami, R. A. (2023). Addressing disparities in ICT access: A focus on public and private schools in Nigeria. *International Journal of Educational Equity, 7*(3), 89-104.

Rogers, E. M. (1962). *Diffusion of innovations* (1st ed.). Free Press.

Salami, A. K., & Fagbohun, E. A. (2023). Overcoming barriers to ICT integration in Nigerian schools: A policy perspective. *Education Policy and Management Review, 5*(1), 34-52.

Smith, P., Adewumi, K., & Obi, C. (2022). Training needs of Nigerian teachers for ICT integration. *Journal of Teacher Development, 12*(4), 61-78.

UNESCO. (2020). ICT in education: Preparing students for a digital society. *UNESCO Education Series, 22*, 11-25

UNESCO. (2021). ICT in education: Trends and challenges. Retrieved from www.unesco.org

Yusuf, M., & Balogun, J. (2021). Teachers' attitudes towards ICT in Nigerian education: Understanding the barriers and enablers. *Educational Research Quarterly, 29*(1), 64-79.