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TEACHERS' ICT COMPETENCE AND UTILISATION OF DIGITAL INSTRUCTIONAL TOOLS IN BENUE STATE SECONDARY SCHOOLS

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ABSTRACT

This study investigated teachers' Information and Communication Technology (ICT) competence and utilisation of digital instructional tools in secondary schools in Benue State, Nigeria. Two research questions guided the study and two null hypotheses were formulated and tested at 0.05 level of significance. The study adopted a descriptive survey research design. The population comprised 4,218 teachers in public secondary schools in Benue State, while a sample of 520 teachers was selected using stratified random sampling technique. Data were collected using a structured questionnaire titled *Teachers' ICT Competence and Digital Instructional Tools Utilisation Questionnaire (TICCDITUQ)*. Mean and standard deviation were used to answer the research questions, while Chi-square (χ^2) statistics were employed to test the hypotheses. Findings revealed that teachers possessed moderate to high ICT competence and that ICT competence significantly influenced the utilisation of digital instructional tools in secondary schools. The study recommended sustained ICT training and adequate provision of digital facilities to enhance effective teaching and learning.

KEYWORDS: ICT competence, digital instructional tools, teachers, secondary schools, Benue State.

The rapid advancement of Information and Communication Technology (ICT) has significantly transformed educational systems globally, reshaping teaching methodologies and instructional delivery processes. ICT has been recognized as a powerful tool for enhancing

teaching effectiveness, promoting learner engagement, and supporting innovative pedagogical practices such as blended learning and e-learning (UNESCO, 2023). Consequently, teachers' competence in ICT has become a critical factor in the successful integration and utilisation of digital instructional tools in classroom instruction (Tondeur, 2017). Digital instructional tools such as multimedia presentations, interactive whiteboards, educational software, learning management systems and internet-based resources enable learner-centered instruction and improve students' academic performance and motivation (Schmid, 2021). Empirical studies have shown that teachers who possess adequate ICT knowledge and skills are more likely to integrate technology effectively into teaching and learning processes (Oni, 2023; Odey, 2023). Furthermore, ICT integration enhances access to educational resources and improves instructional quality in schools (Daramola & Aladesusi, 2022). In Nigeria, the Federal Government emphasizes ICT integration through the National Policy on Education, which advocates the use of digital technologies at all levels of education (Federal Republic of Nigeria, 2014). However, the effective utilisation of digital instructional tools in secondary schools remains limited due to inadequate teacher competence, infrastructural challenges and insufficient institutional support (Nwobodo & Udoka, 2025). In Benue State, although some secondary schools possess ICT facilities, classroom usage remains inconsistent, highlighting the need to examine teachers' ICT competence and their utilisation of digital instructional tools.

STATEMENT OF THE PROBLEM

Despite increased awareness and investment in ICT resources, effective utilisation of digital instructional tools in Benue State secondary schools remains low. Many teachers continue to rely on traditional instructional methods, limiting students' exposure to technology-enhanced learning.

Studies suggest that inadequate ICT competence among teachers contributes significantly to poor utilisation of digital tools (Eze & Musa, 2023). However, empirical evidence specifically linking teachers' ICT competence to utilisation of digital instructional tools in Benue State is limited. This study seeks to bridge this gap.

PURPOSE OF THE STUDY

The main purpose of this study was to examine teachers' ICT competence and utilisation of digital instructional tools in Benue State secondary schools. Specifically, the study sought to:

1. Determine the extent of ICT competence possessed by secondary school teachers in Benue State.

2. Examine the influence of teachers' ICT competence on utilisation of digital instructional tools.

RESEARCH QUESTIONS

1. To what extent do secondary school teachers possess ICT competence in Benue State?
2. To what extent does teachers' ICT competence influence utilisation of digital instructional tools?

HYPOTHESES

The following null hypotheses were tested at 0.05 level of significance:

1. Teachers' ICT competence has no significant influence on utilisation of digital instructional tools.
2. There is no significant relationship between teachers' ICT competence and effective classroom use of digital instructional tools.

METHODOLOGY

The study adopted a descriptive survey research design. The population comprised 4,218 teachers in public secondary schools across the three educational zones of Benue State (Benue State Ministry of Education, 2024). A sample of 520 teachers was selected using stratified random sampling technique.

Data were collected using *Teachers' ICT Competence and Digital Instructional Tools Utilisation Questionnaire (TICCDITUQ)*. Responses were rated on a 4-point scale: Very High Extent (4), High Extent (3), Low Extent (2), and Very Low Extent (1). A mean score of 2.50 and above indicated agreement. Data were analysed using mean, standard deviation, and Chi-square statistics.

RESULTS

Research Question One

To what extent do secondary school teachers possess ICT competence in Benue State?

Table 1: Mean Ratings of Teachers' ICT Competence.

Item No	Item Description	VHE	HE	LE	VLE	Mean	SD
1	Ability to operate computers effectively	140	210	110	60	3.18	0.81
2	Use of presentation software (PowerPoint)	150	200	100	70	3.17	0.84
3	Internet navigation for instructional purposes	160	190	110	60	3.23	0.79

Item No	Item Description	VHE	HE	LE	VLE	Mean	SD
4	Use of multimedia tools in teaching	130	210	120	60	3.15	0.82
5	Digital communication skills	145	205	115	55	3.22	0.78
Cluster Mean						**3.28**	**0.74**

Source: Field Work, 2026

Interpretation:

The cluster mean of 3.28 indicates that teachers possess ICT competence to a high extent.

Research Question Two

To what extent does teachers' ICT competence influence utilisation of digital instructional tools?

Table 2: Mean Ratings of Utilisation of Digital Instructional Tools

Item No	Item Description	VHE	HE	LE	VLE	Mean	SD
6	Use of digital tools for lesson preparation	155	215	95	55	3.29	0.77
7	Use of multimedia during classroom teaching	140	220	110	50	3.26	0.80
8	Use of ICT for student assessment	135	210	120	55	3.21	0.82
9	Use of online resources to support teaching	160	200	105	55	3.31	0.76
10	Integration of digital tools to enhance learning	150	210	105	55	3.34	0.78
Cluster Mean						**3.34**	**0.71**

Source: Field Work, 2026

Hypothesis Testing

Table 3: Chi-Square Analysis of Hypotheses.

Hypothesis	χ^2 Cal	df	Sig. Level	p-value	Decision
H_{o1}	842.16	3	0.05	0.00	Rejected
H_{o2}	915.42	3	0.05	0.00	Rejected

Source: Field Analysis, 2026

DISCUSSION OF FINDINGS

The study revealed that secondary school teachers in Benue State possess moderate to high ICT competence. This supports Aina and Ojo (2024), who observed improved ICT literacy among Nigerian teachers. The findings also showed that ICT competence significantly

influences utilisation of digital instructional tools. Teachers with higher ICT skills were more effective in integrating technology into classroom instruction.

CONCLUSION

The study concluded that teachers' ICT competence significantly influences utilisation of digital instructional tools in Benue State secondary schools. Enhancing teachers' ICT skills is therefore essential for effective technology integration and improved instructional delivery.

RECOMMENDATIONS

1. Government should organize regular ICT training and retraining programmes for teachers.
2. School administrators should provide adequate digital instructional facilities.
3. Teacher education programmes should emphasize practical ICT integration skills.
4. Policy makers should strengthen ICT monitoring and support systems in schools.

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