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Teachers' Profile and Interest in Teaching Information Technology at the Middle Basic Education in Oyo State

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Abstract: This study examined teachers' profile and interest in teaching Information Technology at the Middle Basic Education level in Oyo State, Nigeria. The study was engineered by the growing importance of digital literacy in the 21st century and the critical role teachers play in effective ICT curriculum implementation. A descriptive survey research design was adopted. The population comprised Information Technology teachers in public middle basic schools across Oyo State, with a sample of 120 teachers selected through appropriate sampling techniques. Data were collected using a structured questionnaire focusing on demographic characteristics (gender, age, academic qualifications, and years of teaching experience) and teachers' interest in teaching Information Technology. Descriptive statistics such as frequency counts and percentages were used to analyze the demographic data, while appropriate inferential statistics were employed to examine patterns of teacher interest. Findings revealed that the majority of ICT teachers were female, most were within the 50–59 age bracket, and over half possessed the Nigeria Certificate in Education (NCE) as their highest qualification. A substantial proportion had between 6–10 years of teaching experience. The results further indicated a generally high level of interest in teaching Information Technology among the respondents. The study concludes that while teachers in Oyo State demonstrate strong interest in teaching the subject, there is a need for continuous professional development and encouragement of higher academic qualifications to strengthen instructional effectiveness. The study recommends targeted training programmes, recruitment of younger teachers, and policy support to sustain and improve ICT education at the Middle Basic level.

Keywords: *IT Teachers, Middle Basic Education, Teacher Interest, Teacher Profile.*

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I. INTRODUCTION

The integration of Information Technology (IT) as a subject into the school curriculum education has transformed teaching and learning processes globally. Digital literacy has become a fundamental skill and no longer optional at all levels of education. Its knowledge has also become a driven force for national economy and governance in the 21st century. Governments across the world have therefore prioritized ICT education at the basic and secondary school levels to prepare learners for technological advancement and global competitiveness (UNESCO, 2018). In Nigeria, the Federal Government formally integrated Computer Studies and Information Technology into the basic education curriculum to promote digital competence among pupils and support national development goals (Federal Republic of Nigeria, 2014).

As evident in the Universal Basic Education curriculum, the Middle Basic Education is the same thing as Basic levels 7–9, which represents a critical stage in learners' cognitive and skill development. At these levels, pupils are transited from foundational literacy and numeracy to more specialized subject learning, including Information Technology. To align with the dictates of the global world, the curriculum has undergone several reviews to accommodate advance and relevant knowledge of Information Technology. Teachers are central to curriculum implementation, classroom innovation, and the development of learners' digital skills. The effectiveness of IT implementation at this stage depends grossly on the competence, qualifications, demographic characteristics, and professional interest of teachers responsible for delivering the curriculum (Darling-Hammond, 2000; OECD, 2019).

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Teacher profile comprising variables such as gender, age, academic qualifications, and teaching experience has been widely recognized as a significant factor influencing instructional effectiveness and student outcomes. Researchers such as Kini & Podolsky (2016); Rice (2003) state that teacher qualification and experience are positively associated with student achievement. In another vein, Rogers (2003) opines that demographic characteristics may influence pedagogical orientation, classroom management, and technology adoption patterns. For ICT education to survive, teachers' technological readiness, background play a crucial role in effective content delivery and integration of digital tools in the classroom.

Beyond demographic and professional characteristics, teachers' interest in teaching Information Technology is equally important. Teacher interest reflects intrinsic motivation, enthusiasm, and commitment to subject delivery. Interest is defined by Cambridge (2024) as the feeling of wanting to give your attention to something or of wanting to be involved with and to discover more about something. Interest determines the activities that you enjoy doing and the subjects that you like to spend time learning about. It is something you enjoy doing, studying, or experiencing. According to Deci & Ryan, (2000) in their self-determination and motivation theories, intrinsic interest enhances instructional quality, persistence, and innovation in teaching). In ICT-related subjects, where rapid technological changes demand continuous updating of knowledge and skills, teachers' interest becomes a key driver of professional development and classroom effectiveness. Studies have shown that teachers who demonstrate strong subject interest positively influence students' engagement and academic performance (Hidi & Renninger, 2006).

Despite policy emphasis on ICT integration in Nigerian schools, challenges such as inadequate infrastructure, limited professional development, and uneven teacher preparation persist (UNESCO, 2018). In Oyo State, as in many parts of Nigeria, there is a need to understand who the ICT teachers are through their demographic characteristics, such as age, gender, qualifications, teaching experience and how interested they are in teaching Information Technology at the Middle Basic level. Such understanding is crucial for planning teacher recruitment, professional training, and policy interventions aimed at strengthening I.T education.

This study therefore examines teachers' profile and their interest in teaching Information Technology at the Middle Basic Education level in Oyo State. By analyzing demographic variables alongside measures of teacher interest, the study seeks to provide empirical evidence that can inform educational planning, improve teacher development programmes, and enhance the quality of I.T instruction in the state.

Therefore, this research seeks to attempt to answer the questions below:

- What is the profile of teachers at the middle basic education in terms of: Age, Gender, Qualifications and Experience?
- What is the level of interest of teachers in teaching information technology at the Middle Basic Education in Oyo state?

II. METHODS

This study employed a descriptive survey design to investigate the profile of teachers and their interest in teaching information technology at the Middle Basic Education in Oyo state. A structured questionnaire titled Teachers' Profile and Interest Scale (TPIS) was used with its validity confirmed by experts and reliability tested through a pilot study, yielding a Cronbach's Alpha of 0.78. The multi stage sampling procedure was used involving the three (3) senatorial districts in Oyo state. These senatorial districts are clustered into 33 local governments, simple random sampling was used to select 5 local governments from each senatorial district, to have a total of fifteen (15) local governments. Purposive sampling was used to select eight (8) schools from each of the fifteen local governments. This gives a total of eight (8) schools from each local government, 40 schools from five local governments from each senatorial district and total of 120 primary schools from the three senatorial districts in Oyo state. A teacher from each school will be randomly selected to give a total of 120 teachers. Data analysis was carried out using descriptive statistics that involved frequency and percentage scores for answering the research questions.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/26feb1273

III. RESULTS

- *Research Question One: What is the Profile of Teachers at the Middle Basic Education in Terms of: (i) Gender (ii) Age, (iii) Qualifications and (iv) Experience?*

Table 1: Information Technology Teachers' Profile

SN	Profile	Frequency	Percentage
1	**Gender**		
	Male	19	15.8
	Female	101	84.2
2	**Age**		
	20-29	24	20
	30-39	29	24.2
	40-49	27	22.5
	50-59	38	31.7
	60+	2	1.7
3	**Qualifications**		
	NCE	63	52.5
	B.Ed	50	41.7
	M.Ed	5	4.2
	PhD	2	1.7
4	**Experience**		
	0-5	22	18.3
	6-10	56	46.7
	11-15	29	24.2
	16-20	12	10
	21 +	1	0.8

N=120

Table 1 shows the frequency and percentage distributions of the profile of information technology teachers at the Middle Basic Education in Oyo state from the sampled schools. The table shows that out of the one hundred and twenty (120) sampled teachers, 19 teachers an equivalent of (15.8 %) were males while 101 (84.2 %) of them were females. Also, 53 (44.2 %) of the sampled teachers fall within ages 20 to 39 years, while, 65 (54.2 %) of them were within the middle age range of 40 to 59 years. However, only two (2) of them which is (1.7%) were within the age range of 60 and above. On the ground of academic qualification, out of one hundred and twenty teachers (120), 63 of them (52.5%) have NCE certificate, another 50 of them which is an equivalent of (41.7%) have B.Ed, 5 of them (4.2%) have M.Ed while 2 (1.7%) rose to possess PhD. As regards the year of experience twenty two (22) teachers out of one hundred and twenty, an equivalent of (18.3%) are between 0-5 years of experience, fifty six(56) teachers which is equal to (46.7%) have between 6 and 10 years of experience, twenty nine(29) teachers which is (24.2%) have between 11 and 15 years of experience, twelve (12) teachers which is (10%) have between 16 and 20 years of experience while only one (1) person which is (0.8%) has above 20 years of experience.

IV. DISCUSSION

The data in table show a notable gender imbalance among Information Technology teachers in Oyo state, with female teachers having (84.2%) dominating the profession at the middle basic levels in Oyo State. This confirms that teaching profession at this level is female gender dominated. It is a true reflection of the general pattern in teaching profession where females are found more than their males' counterpart. According to UNESCO (2017), ICT and technology-related fields are often perceived as male-dominated globally, however, at the basic and secondary education levels in Nigeria, teaching profession especially in public schools tends to attract more females (Aina, 2013). The high proportion of female IT teachers in this study suggests that while women may be underrepresented in high-level ICT industries, they are increasingly active in ICT-related teaching roles. This finding aligns with the broader feminization of the teaching profession in Nigeria and other developing countries (UNESCO 2020) and also confirms the findings of Eagly & Wood (2012) that gender distribution may influence instructional style, classroom interaction, and students' perceptions of ICT as a subject. Importantly, the

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strong female presence may serve as positive role models, especially for female pupils, potentially improving girls' participation in ICT-related careers (UNESCO, 2017).

It was also revealed from the table that the largest age group (50–59 years) , indicating that a substantial proportion of IT teachers are nearing retirement age. This suggests a relatively aging workforce. Research shows that age can influence technology adoption and instructional innovation. According to Rogers (2003) in his Diffusion of Innovations Theory, younger individuals are often earlier lovers and adopters of new technologies, though as stated by Darling-Hammond (2000), experienced older teachers may compensate with pedagogical expertise and classroom management skills. However, the high percentage of teachers aged 50–59 raises policy concerns about future teacher supply and succession planning in Oyo State. It is an indication that this high percentage is allocated to the aging workforce. This is consistent with the observations by Okebukola (2021) who noted that Nigeria's basic education ICT workforce is characterized by older teachers who often require continuous retraining. The implication is that without deliberate recruitment of younger, digitally fluent teachers, the pace of technology integration in basic schools may remain slow.

The findings show that the majority (52.5%) possess the Nigeria Certificate in Education (NCE), which is the minimum teaching qualification in Nigeria. Truly, this meets regulatory requirements, only 5.9% hold postgraduate qualifications (M.Ed or PhD). This is a deviation from the study of Darling-Hammond (2000) that teacher qualification is a key determinant of instructional quality and student achievement and in the assertion of Rice (2003), higher academic qualifications are often associated with deeper subject knowledge and improved pedagogical skills. The relatively low percentage of postgraduate degree holders may limit advanced ICT pedagogy, innovation, and research integration in classrooms. However, possession of NCE and B.Ed qualifications indicates formal professional training, which is crucial for effective curriculum implementation (Federal Republic of Nigeria, National Policy on Education, 2014). Continuous professional development (CPD) would be essential to strengthen ICT competencies among teachers.

From the table, nearly half (46.7%) have 6–10 years of experience, suggesting that most teachers are in their mid-career stage. The distribution suggests a reasonably experienced workforce capable of delivering ICT instruction effectively. The combination of formal qualifications with moderate-to-high experience levels can positively influence pupils' academic performance. Research consistently indicates that teacher effectiveness increases during the first 5–10 years of service before stabilizing (Kini & Podolsky, 2016). Experience plays a crucial role in classroom effectiveness, technology integration, and instructional adaptation (OECD, 2019). If the teaching of information technology will still be relevant at the Middle Basic Education in Oyo state as stated in the curriculum, these characteristics have important implications for policy, recruitment, teacher professional development, and ICT curriculum sustainability. Investment in advanced ICT training, postgraduate education, and recruitment of younger teachers may enhance long-term instructional quality and technological innovation in the state.

- *Research Question Two: What is the Level of Interest of Teachers in Teaching Information Technology at the Middle Basic Education in Oyo state?*

Teachers' interest determines the level of enthusiasm for delivery. This can affect negatively or positively the delivery of the contents in the curriculum. This is the major reason why this study takes it into consideration. The responses of teachers to the teaching of information technology are captured in table 2.

Table 2: Teachers' Interest in IT.

SN	Items	Extremely True	Very True	Moderately True	Slightly True	Not At All
1	I like teaching Information Technology as a subject	98(81.7%)	10(8.3%)	7(5.8%)	5(4.2%)	0
2	I feel satisfied when I am teaching Information technology	108(89.6%)	10(8.3%)	2(1.7%)	0	0
3	I want to know all about how to solve information Technology problem	96(79.8%)	14(11.7%)	5(4.2%)	4(3.3%)	1(0.8%)
4	I feel excited when a new thing is discovered in Information Technology	108(90.2%)	7(5.8%)	5(4.2%)	0	0
5	I am able to concentrate easily when I am teaching Information Technology	93(77.4%)	17(14.17%)	2(1.7%)	7(5.8%)	1(0.8%)
6	I am happy when pupils perform well in Information Technology	101(84.2%)	2(1.7%)	15(12.5%)	2(1.7%)	0

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7	I teach difficult topics in Information Technology	98(81.7%)	7(5.8%)	10(8.33%)	5(4.2%)	0
8	I prefer teaching of Information Technology to other subjects	107(89.0%)	8(6.67%)	3(2.5%)	1(0.8%)	1(0.8%)
9	I feel bad when pupils come late to my class	96(80.0%)	10(8.3%)	14(11.67%)	0	0
10	I encourage pupils to study information technology in future	109(90.6%)	5(4.2%)	5(4.2%)	1(0.83%)	0
11	I like to talk about Information Technology with my friends.	94(78.2%)	16(13.33%)	2(1.7%)	7(5.8%)	1(0.8%)
12	I feel confident when it is time to teach any topic on Information Technology	102(84.6%)	10(8.33%)	8(6.67%)	0	0
13	I am proud to be an Information Technology teacher in primary school.	91(75.8%)	5(4.2%)	5(4.2%)	5(4.2%)	4(3.33%)
14	I can teach Information Technology at any time	96(80.0%)	18(15%)	4(3.3%)	1(0.8%)	1(0.8%)
15	I am always happy when I am preparing for Information Technology classes	103(85.4%)	10(8.33%)	2(1.7%)	15(12.5%)	0
16	I encourage pupils to study further in information technology	112(93.33%)	5(4.2%)	2(1.7%)	1(0.8%)	0
17	I take people on excursion on information technology	105(87.5%)	10(8.33%)	5(4.2%)	0	0
18	I use instructional materials to teach information technology	112(93.3%)	8(6.67%)	0	0	0
19	I give extra lesson to pupils on information technology	106(88.33%)	8(6.67%)	3(2.5%)	2(1.7%)	1(0.8%)
20	I feel comfortable to mark information technology homework	109(90.83%)	10(8.33%)	0	1(0.8%)	0

N=120

The results presented in table 2 reveal that teachers' level of interest is positive, high and consistent towards the teaching of information technology. It shows a very high level of disposition towards the subject. The concentration of high and positive responses from the 20 items measuring teachers' interest is between Extremely true of me and very true of me with the former having a greater percentage in all items, which indicates strong, affective, cognitive and behavioural commitment to the teaching of Information Technology at the Middle Basic level. The least percentage is 75.8% which belongs to the high interest category. From the responses of the teachers in Items 1 and 2 show that 81.7% of the teachers extremely like teaching the subject, while 89.6% feel satisfied when teaching the subject.

As revealed in Item 1 (90.0%) of the respondents, the majority of the teachers reported that they like teaching Information Technology and from item 2 (97.9%), a greater majority reported feel satisfied while teaching the subject. The curiosity and enthusiasms of teachers is also on the high side as 91.5% (Item 3) indicated interest in solving IT-related problems. Another high percentage of 96.0% (item 4) reported excitement when new developments emerge in Information Technology. Teachers' concentration while teaching is shown in Item 5 as 91.6% responded in affirmation and 85.9% (item 6) show happiness while pupils perform well in the subject. Teachers' confidence and professional mastery was demonstrated in item 12 as over 93% of respondents felt confident in teaching IT topics while 80.0% reported being proud to be IT teachers at the primary school level (Item 13). Teachers' behavioural pattern in items 10 and 16 show that over 94% of the respondents encourage their pupils not only to learn but also to study further in IT for future relevance while 100% (item 18) engage the use of instructional materials for teaching. The responses in item 19 show that 95% of the respondents give extra lessons to them while 99% respondents in item 20 asses pupils' work comfortably.

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V. DISCUSSION

The teaching of information technology at the Middle Basic level commands a high level of interest from the teachers, this signifies that it is not seen as a burden or extra luggage. This is in support of the findings of Ertmer & Ottenbreit-Leftwich, (2010) that identifies teachers' satisfaction as a critical determinant of instructional quality and commitment in teaching technology related subjects like information technology. This finding suggests strong intrinsic motivation, which is critical for effective teaching and sustained professional engagement which is in support of Deci & Ryan (2000) that says intrinsic motivation enhances persistence, enthusiasm, and instructional quality in teaching and also in support of Koehler & Mishra (2009) that states that curiosity is essential in technology education, where rapid innovation requires teachers to continuously update their knowledge. These practices indicate a high level of pedagogical commitment and align with prior studies that link teachers' interest with proactive instructional behaviours (Darling-Hammond et al., 2017).

Furthermore, as shown in Items 3 and 4, a strong intellectual curiosity and enthusiasm was demonstrated which corroborates the self-efficacy concept of Bandura (1997) that emphasizes that teachers who are confident in their learning ability tend to display higher motivation and instructional persistence. Teachers' instructional mastery, comportment and classroom engagement are also revealed from the responses in Items 5 and 6, which is a testament to the intrinsic interest and professional commitment as stated by Ryan & Deci, 2000.

Contrary to earlier studies by Aduwa-Ogiegbaen & Iyamu, (2005), that teachers avoid complex ICT content in schools, Item 7 shows that teachers affirm that they teach difficult Information Technology topics. This suggests a shift toward improved confidence and readiness to address challenging curriculum components, possibly due to increased exposure to digital technologies in recent years. In support of UNESCO (2018), that teachers' interest and attitudes are main drivers and propelling force for learners' participation in technology driven subjects. Items 8,10,16 and 17 demonstrate teachers' future-oriented and advocacy roles as they prefer teaching IT to other subjects, and also encourage pupils to study IT in the future. Teachers' professional identity and confidence are also tested in Items 12 and 13 and behavioral manifestations of interest are evident in Items 18, 19, and 20. This sense of pride and confidence is crucial for sustaining curriculum implementation and it aligns the Theory of Planned Behavior as stated by Ajzen (1991), which links positive attitudes to stronger instructional intentions. Obviously, the percentages recorded under "Not At All" in all items is very low which indicates that negative attitudes towards the teaching of information technology at the middle basic level is minimal and under control. This high level of interest is likely to create a supportive learning environment that promotes pupils' engagement and achievement in IT, corroborating earlier research that identifies teacher interest as a key determinant of successful curriculum implementation (Fullan, 2014). This is a good boost for the implementation of the curriculum as stated in the first objective of this study. Though it contrasts the idea of Yusuf & Afolayan (2015) that there is teachers' resistance to IT integration in Nigerian schools.

VI. CONCLUSION

This study examined teachers' profile and their interest in teaching Information Technology (IT) at the Middle Basic Education level in Oyo State. Based on the findings, it can be established that teachers' demographic and professional characteristics such as qualification, teaching experience, gender, and area of specialization play a significant role in shaping their interest and effectiveness in teaching Information Technology.

The results indicate that teachers with higher academic qualifications and relevant specialization in Information Technology demonstrate stronger interest and greater commitment to teaching the subject. Professional training and subject-specific competence appear to enhance confidence, instructional quality, and willingness to adopt innovative pedagogical approaches. Conversely, teachers assigned to teach IT without adequate specialization may exhibit comparatively lower enthusiasm, which could affect instructional delivery.

Teaching experience was also found to influence interest in teaching IT. While experienced teachers bring pedagogical maturity and classroom management skills, those with updated technological skills and continuous professional development show higher levels of engagement with modern digital tools. This suggests that experience alone is insufficient without ongoing ICT capacity-building initiatives.

In conclusion, enhancing teachers' interest in teaching Information Technology at the Middle Basic Education level in Oyo State requires a combination of recruitment of qualified teachers and continuous professional development to strengthen the workforce towards digital literacy.

RECOMMENDATIONS

Based on the findings of the study on ICT teachers' profile and interest in teaching Information Technology at the Middle Basic Education level in Oyo State, the following recommendations are made:

- Regular in-service training, workshops, and seminars should be organized for ICT teachers to enhance their technological competencies and pedagogical skills.
- Stakeholders should encourage teachers through study leave, scholarships, and sponsorship to pursue higher degrees such as B.Ed., M.Ed., and PhD in ICT-related fields.
- Given the significant proportion of teachers approaching retirement age, the Oyo State Ministry of Education should implement proactive recruitment policies to attract younger, technologically skilled teachers. This will ensure sustainability and continuity in ICT education delivery.

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