

Intention of Basic Technology Teachers on The Use of ICT for Teaching in Ilorin Metropolis

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Abstrak

Sistem pendidikan di seluruh dunia semakin ditekan untuk menerapkan perangkat TIK baru ke dalam kurikulum mereka untuk memberikan pengetahuan dan keterampilan yang mereka butuhkan di abad ke-21 kepada siswa. Penelitian ini menganalisis niat guru Teknologi Dasar tentang penggunaan TIK. Penelitian ini merupakan penelitian deskriptif dengan tipe survey. Sebanyak 270 responden yang merupakan sampel penelitian. Pengumpulan data dilakukan dengan menggunakan kuesioner terstruktur. Statistik deskriptif digunakan untuk menjawab pertanyaan penelitian; hipotesis diuji dengan independent t-test. Temuan penelitian adalah bahwa; Guru Teknologi Dasar menyetujui semua item yang diangkat tentang niat mereka menggunakan TIK untuk mengajar dan tidak ada perbedaan yang signifikan antara guru Teknologi Dasar pria dan wanita dalam niat menggunakan alat TIK untuk mengajar. Studi menyimpulkan bahwa niat guru Teknologi Dasar untuk menggunakan TIK untuk mengajar adalah positif dan tidak ada perbedaan yang signifikan antara guru Teknologi Dasar pria dan wanita dalam niat menggunakan alat TIK untuk mengajar. Penelitian ini merekomendasikan bahwa guru Teknologi Dasar harus berusaha untuk memberikan siswa kegiatan yang akan melibatkan penggunaan TIK karena mereka memiliki niat positif untuk menggunakan TIK.

Kata kunci: Niat, Teknologi Dasar, Gender dan TIK

Abstract

Educational systems around the world are becoming increasingly pressured to apply the new ICT tools to their curriculum to provide students with the knowledge and skills that they need in the 21st century. This study analyses the intention of Basic Technology teachers on the use of ICT for teaching. The study was a descriptive of survey type. A total no of 270 respondents are the sample for the study. Data were collected using structured questionnaire. Descriptive statistics was used to answer the research questions; hypothesis was tested with independent t-test. The findings of the study were that; Basic Technology teachers agreed to all the items raised on their intention to use ICT for teaching and there is no significant difference between male and female Basic Technology teachers on the intention to use ICT tools for teaching. The study concluded that Basic Technology teachers' intention to use ICT for teaching were positive and there is no significant difference between male and female Basic Technology teachers on the intention to use ICT tools for teaching. The study recommends that Basic Technology teachers should endeavor to give the students activities that will involves the use of ICT since they have positive intention to use ICT.

Keywords: Intention, Basic Technology, Gender and ICT

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1. INTRODUCTION

Information and communication technology (ICT) is a force that has changed many aspects of human endeavours (Machaba & Bedada, 2022; Rubach & Lazarides, 2021). The impact of ICT on various fields of human endeavour such as medicine, tourism, business, law, banking, engineering and architecture over two or three decades has been enormous (Hao, Y., Guo, Y., & Wu, 2022; Zhao et al., 2022). But when one looks at the field of education, there seems to have been an uncanny lack of influence of ICT and far less change than other fields have experienced. Lack of activity and influence of ICT on education and many others (Chakraborty & Kar, 2021; Griffin et al., 2012). In other words, though ICT has begun to have presence in education, its impact has not been as extensive as in other fields. Education is a very socially oriented activity and quality education has traditionally been associated with strong teachers having high degrees of personal contact with learners. With

the world moving rapidly into digital media and information, the role of ICT in education is becoming more and more important (Qazi et al., 2021; Swindell & Wright, 2022). It has been suggested that information and communication technologies (ICTs) can and play a number of roles in education such as developing the kind of graduates and citizens required in an information society; improving educational outcomes and enhancing and improving the quality of teaching and learning (Adel et al., 2016; Moustakas & Robrade, 2022).

The application of ICTs in the teaching-learning process can enhance the quality of education in several ways such as increasing learner motivation and engagement, facilitating the acquisition of basic skills, and enhancing teacher training (Nye, 2022; Rajabalee & Santally, 2021). Since Technology is one of the major subjects being offered at both secondary and tertiary levels, its relevance and sustenance in the 21st century requires the adequate application of ICTs like video tapes, television and multimedia computer software that combine text, sound and colorful moving images which can be used to provide challenging and authentic content that will not only engage the student in the learning process but as well make learning concrete (Chen & Tsai, 2021; Lei & Medwell, 2021).

The utilization of ICT in the teaching and learning process in Basic Schools has been an issue that needs to be addressed for improving knowledge delivery in Ilorin metropolis, kwara-state Nigeria (Abdillah et al., 2022; Danovitch & Severson, 2021). The Federal Government of Nigeria (FGN) has made a significant contribution in building ICT laboratories and equipping them with ICT facilities in Basic secondary schools in Nigeria (Arkorful et al., 2021; Hu, 2022; Kutluca, 2021). The policy on ICT has been developed which aims at empowering the youth with ICT skills and preparing them for global competitiveness and also encouraging capacity building of ICT in the country's secondary schools (Cheng et al., 2022; Mohebi, 2022).

It is in line with previous research findings that found teachers had a strong desire for the integration of ICT into education but they encountered many barriers (Malik et al., 2021). The major barriers were lack of confidence, lack of competence and lack of resources. Since lack of confidence, competence and accessibility have been found to be the critical components of technology integration in school. Moreover other previous research also stated that the computer should be fitted into the curriculum, not the curriculum into the computer (Miller, 2021) Therefore, effective ICT integration should focus on pedagogy design by justifying how the technology is used. Different authors plan for integration of ICT into teaching and teaching process.

The use of ICT tools for teaching in schools were attributed to teachers' perception as a results, the utilization of ICT has also been made mandatory at all levels of educational institutions and adequate financial provision were made for ICT tools and resources (Sundar, 2020; Zhang et al., 2022). In spite of the efforts of the Federal Government of Nigeria in promoting ICT integration into teaching and learning across Education system, the attainment of objectives of ICT in these schools seems to suffer some set back as the use of ICT for teaching is not practice by Basic Technology teachers. It is against this backdrop that this study conducted in order to analyses the perceptions of basic science and technology teachers on the use of ICT tools for teaching Basic secondary schools in Public secondary schools in Ilorin metropolis.

2. METHODS

This study is a descriptive design of the survey type. This enabled the researcher to collect information from a representative sample of population in order to describe situations as they exist (Braun et al., 2021; Lindsay-Smith et al., 2018). The population of this study consisted Basic Technology teachers in Ilorin metropolis. The target population were all 270

Basic Technology teachers in Upper Basic level of Education in Ilorin metropolis. This census population constitute the sample size for the study. Convenience sampling technique was used for the selection of real respondents.

The researcher-designed questionnaire, tagged the perception of Basic Technology teachers on the use of ICT tools for teaching in Ilorin metropolis was the main instrument for this study. The instrument consisted of five sections A, B and C, . Section A would seek information on the Bio data of the respondents like name of the school, gender, teachers' qualification. Section B examined perceived intention of ICT for teaching Basic technology in Ilorin metropolis. Section. The respondents would be expected to respond to the questionnaire items drawn as follow; Section B, C and D of the questionnaire indicated the opinion as Strongly Agree (SA), Agree (A), Disagree (D) or Strongly Disagree (SD). The results gathered were analyzed using mean scores, frequency counts and percentage to answer research questions and hypotheses were tested using independent t-test at 0.05 level of significance.

3. RESULTS AND DISCUSSION

Results

Basic Technology teachers' intentions to use ICT for teaching in Ilorin metropolis can be seen through a questionnaire that displays the mean and Standard Deviation of Basic Technology Teachers' Intentions to use ICT for Teaching in Ilorin Metropolis as shown in Table 1.

Table 1. Mean and Standard Deviation of Basic Technology Teachers' Intention to use ICT for Teaching in Ilorin Metropolis

S/N	Questionnaire Items	Mean	Std. Deviation
1	Using ICT will enhance effectiveness in my teaching	3.26	0.620
2	ICT usage will give me control over teaching	3.40	0.607
3	ICT will support the critical part of my tasks	3.11	0.658
4	The use of ICT in teaching will make my teaching more diverse	3.20	0.704
5	ICT usage will increase my daily productivity in teaching	3.19	0.688
6	The use of ICT will be counter-productive due to insufficient technical resources	3.17	0.000
7	ICT usage will reduce stress and tension inherent in normal classroom teaching	3.18	0.617
8	ICT will eliminate eye contact and reduce my seriousness	3.24	0.743
9	ICT will make me finish the content of my course quickly	3.28	0.641
10	The learning process will become easier with the use of ICT	3.22	
	Grand Mean	3.31	

Based on Table 1 it show A grand mean score of 3.31 for teachers' intention to use ICT for teaching in Ilorin metropolis. This is above the average mean of 2.5 which implies that Basic Technology teacher's intention to use of ICT for teaching was positive. Then there is no significant difference between the intentions of male and female basic technology

teachers to use ICT tools to teach in the metropolitan city of Ilorin. This can be seen through the presentation in [Table 2](#).

Table 2. Significant Difference Between the Perceived Ease of Use of Male and Female Basic Technology Teachers on the Use of ICT Tools for Teaching in Ilorin Metropolis

Gender	No	\bar{X}	SD	Df	t	Sig. (2-tailed)
Male	164	5.01	2.32	268	-1.21	.23
Female	76	3.90	1.60			
Total	270					

Based on [Table 2](#) it indicates that $t(268) = -1.21, p = .23$. That is, the result of the t-value of -1.21 resulting in 0.23 significance value was greater than 0.05 alpha value. This means that the stated null hypothesis was accepted. By implication, the stated null hypothesis was established thus: There is no significance difference between male and female Basic Technology Teachers on their intention to use ICT for teaching. Based on the earlier mean score of the teachers' general Intention, it means that both male and female teachers had a high positive Intention.

Discussion

The intention of Basic Technology teacher's intention to use ICT for teaching was explain in the result. Base on the result such intention includes using ICT will enhance effectiveness in my teaching. The result of the mean score established that Basic Technology teachers had positive intention to use ICT for teaching. This finding agreed with previous research that state one's behavior is determined by his or her intentions, which in turn, are determined by one's attitude toward the behavior and the subjective norm concerning the behavior ([Fishbein & Ajzen, 1975](#)). Subjective norm is an important determinant of technology acceptance and behavioral intentions; in addition, individuals tend to take significant referents' opinions into consideration when assessing a technology's usefulness. By implication, Basic Technology teachers are willing and ready to use ICT in teaching ([Chai & Kong, 2017](#); [Garba et al., 2015](#); [Valverde-Berrocso et al., 2021](#)). Encouragement and enabling environment should therefore be created so that this dream can see the light of the day.

The influence of Basic Technology teachers' gender on their perceived usefulness, ease of use and intention to use ICT in instruction answer by the results of the t-test established no significant difference between male and female Basic Technology teachers' perceived usefulness, ease of use as well as their intention to use ICT for teaching. These findings on gender refute the earlier findings who posited that this is the twenty-first century, but yet tradition, culture, religion and other factors have continued to widen the disparity between Nigerian men and women in the use of ICT at the expense of women ([Carvalho et al., 2020](#)). However, this present finding agreed the other findings whose findings stated that the potential of the ICTs for the advancement of men and women is considerable ([Griffin et al., 2012](#)). Networking, research, training, sharing of ideas and information– all these could be infinitely easier for both men and women through relatively affordable computer-mediated communications such as E-mail, Internet hypertext and hypermedia ([Asuman et al., 2018](#); [Bagon et al., 2018](#); [Tran et al., 2020](#)).

It can therefore be established that there was no significant difference between male and female basic technology teachers on their perceived usefulness, ease of use and intention to use ICT for teaching. Gender should therefore not be considered as a major criterion in the

use of ICT for teaching. The study recommended that Basic Technology teachers should endeavor to give the students activities that will involve the use of ICT since they have positive intention to use ICT for instruction. The limitation of this study is only to analyze the significance between male and female Basic Technology teachers on perceived usefulness, ease of use and intention to use ICT for teaching. It is hoped that further research will be able to analyze other factors that influence the use of ICT for teaching, especially in Nigeria.

4. CONCLUSION

This study analyzes the intention of Basic Technology teachers on the use of ICT for teaching involving as many as 270 respondents as the research sample. The research findings are that; Basic Technology teachers agreed with all items raised about their intention to use ICT for teaching and there was no significant difference between male and female Basic Technology teachers in intention to use ICT tools for teaching. This study concluded that Basic Technology teachers intention of ICT for teaching was positive and there is no significant difference between male and female Basic Technology teachers on the intention to use ICT for instruction in Ilorin metropolis.

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