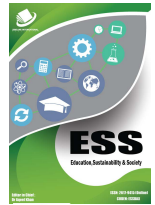




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RESEARCH ARTICLE

# TEACHERS PERCEPTION ON THE USE OF TECHNOLOGY IN TEACHING AND LEARNING IN ASSOCIATE SCHOOLS ZAMFARA STATE, NIGERIA

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## ARTICLE DETAILS

## ABSTRACT

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## ABSTRACT

Teachers are at the forefront of kids' educational experiences, to provide children with the guidance and technical skills they need to succeed in their connected future. This study therefore examined the perception of teachers' training on use of technology and integrating technology in instructional delivery. Questionnaire were developed and administered to 40 selected teachers, the data collected was analyzed using statistical package for social sciences (SPSS). The research findings revealed that, teachers' perception on training of the use of technology found to improve their teaching practice in classrooms. Therefore, Government should provide on-the-go extensive training/seminars/workshops that is consistently moving with technological changes. government and stakeholders in education should provide technological equipment that will enhance teachers use of instructional materials in their teaching and learning processes.

## KEYWORDS

Teachers, Associate schools, teaching and learning.

## 1. INTRODUCTION

An accurate understanding of the role of technology in transforming teaching and learning environment is essential for promoting use of technological tools in teaching [1]. These technologies are also placed as mechanisms for educational reform via transformation of teacher practice. Technology cannot be integrated in to classroom without teachers who are knowledgeable about the technology and implementation to meet the educational objectives [2]. The use of technology has become part of teaching and learning process. This development challenges the traditional way of the instructional delivery. Now, the education sector faces the challenges of providing teachers with: technology and information knowledge and the ability to use digital technology to access and use information to solve problems, as well as knowledge of subject matter content.

This development requires a lot of changes in the evolutionary and revolutionary education industry to cope with new challenges in technology integration in education [3]. To address these challenges effectively equip teachers with functional tools relevant to the needs of technology use, the education sector needs to be changed at all levels [2]. Using technology in the classroom provides students with independence and active learning. Using technology such as audio-visual, students can create their own knowledge based on past experiences with new information [4].

Associate schools are piloting schools introduce in the year 2015 through Teacher Development Programme (TDP) project funded by UKaid/DFID to improve student learning through changing the way children are taught in the classroom [5]. Access to audio-visual resources using mobile technology was one of the key priority intervention activity within the area of in-service training. In assessing teachers' beliefs and

their influence on technology use, teachers believed that one should be confident of his or her ability to use technology and committed to their use. A trained teacher who is better in using technology, the more likely he can integrate it into classroom instruction [6].

## 2. LITERATURE REVIEW

Information Communication Technology has been regarded as a priority in global education, even though Nigeria was lagging behind the expectations and desires of technology use but is not left out [7]. The Federal government of Nigeria in the National Policy on Education (FRN, Revised 2014) recognizes ICT as a product of technological change and as an innovation in education. All teachers in educational institutions should be professionally trained. Teacher educational programmes shall be structured to equip teachers for the effective performance of their duties. Information technology shall be incorporated into teacher programmes. It was revealed that, most teachers in Nigeria do not have enough knowledge for the effective use of technological resources for teaching or not at all use technology tool in their instructional delivery [3].

There are a lot of research on the perceptions of how teachers view the use of technology in the classroom. In a study carried out that, experienced teachers who had little or no professional development in the use of technology in the classroom were less likely to use it in the classroom and were less likely to see the benefit of technology usage in the classroom [8]. According to a study also discovered that, technological resources were not available in the schools. Since accessibility and utilization of any resource is dependent on availability, they concluded that technology has not been used effectively in instruction. Despite the important roles and clear needs for ICT use in teaching and learning, many factors shape constraints for their use at the

education at all levels in Nigeria. Factors like electricity shortage supply across the country, ICT facilities are limited and insufficient.

Lack of access to basic ICT equipment, low internet connectivity and computers and lack of use of educational software has become a barrier to the development of effective and professional teachers in Nigeria [2]. A study conducted indicate that teachers' ICT integration in teaching is still low, though majority of the teachers comprising (88.76%) agree that the integration of ICT in teaching and learning activities has brought positive impact on their students' learning ability. For Nigeria to have effective technology-based teachers at all levels, there is need to include technology training courses at the teacher institutions, so that the trainer can acquire teaching skills along with ICT skills. This was supported in a study which stated that, such approach has been found to yield better teachers' achievement in handling technological tools [2]. Technology use in schools depend solely on the teachers' training, interest and full implementation of ICT. This would enhance teaching and learning, improve teacher efficacy and develop learners' ability to use technology.

Many studies were conducted to explore the effect of implementing use of technology in teaching and learning institutions. Not many have studied the perception of the training received by the teachers on the implementation of the skills acquired. With the daily improvement of technologies, researchers would like to find out the perception of the teachers on the training as well as the implementation of the skills gained in the classroom. The findings will benefit government and other Educational Support donors like Teacher Development Programme funded by UKAids/DFID (Department of International Development). The advent of ICT into teaching and learning requires a paradigm shift from a traditional method that is a teacher centered approach to a modern method of learners centered approach [8]. For teachers to integrate technology into their practice, they need a constant update on the understanding of which technologies exist and their functionalities. Consideration has also been given to research and learning theories of teacher preparation regarding the use of technology, technology application is becoming part of the teaching and non-teaching practices teachers more than ever before [8]. To witness significant changes related to the use of teacher technology, professional development initiatives should target teachers specifically as main beneficiaries [9].

The rationales of integration technologies teaching include enriching learning experiences; transforming teaching; contributing to knowledge-based advancement; make teaching more student-centered, constructivist in nature, facilitating personalized learning and focus on higher-order learning [9]. In a research conducted with 31 student teachers on technology integration in elementary classrooms discovered that, Technology integration is practiced by student teachers in the elementary classrooms with a goal of improving their instructions [10]. He further stressed that, more studies are needed to explore how are teachers can integrate technology effectively into their daily teaching practices. Importantly the issue does not look like what technology to choose but how to implement the selected technology for maximum learning outcomes. Various factors can influence how they choose and use technology for their teaching.

## 2.1 Objective

The aims of this study were divided in to:

1. Determine the perception of teachers on training of using technology for teaching.
2. Finding out the perception of teachers of using technology in the classroom.

## 2.2 Research Questions

Based on the above stated objectives, the following questions are formulated:

1. What are the teachers' views on the training on use of technology for teaching?
2. What is teachers' perception of using technology in the classroom?

## 3. METHODOLOGY

This study utilized a descriptive survey design to explore perception of teachers on training and use of technology in their classroom. Nworgu have stressed that, the of survey design is one where a group of people or objects are being studied by collecting and analyzing data from only a few people or objects that are considered representative of the entire population [11]. Based on that, researchers have developed questionnaire and finalized it before being distributed to targets respondent group.

### 3.1 Population and Sample for the Study

A population of 40 teachers from TDP associate schools comprising 87 teachers participated in the study, the respondents were purposely selected because they are trained on the use of technology in classroom and are expected to demonstrate exemplary competence and proper integration of technology in their instruction delivery.

### 3.2 Instrumentation

Self-developed close ended survey questionnaire with a total of 20 items was used as the main instrument in this study. A total of 40 questionnaires were distributed where all respondents were asked to read the statements given and choose their answers based on 4-Likert scale ranged from 1= strongly agree (SA), 2= agree (A), 3= disagree (D) and 4= strongly disagree (SD). The design consists of 3 sections. Section A is about the demographic of the respondents consists of 4 items that includes gender, Highest qualification, teaching experience. Sections B in the questionnaire focused on teachers' perception on training received on the use of technology, a Section C focused teacher's perception on the use of technology in the classroom.

### 3.3 Validity and Reliability of the Instrument

The instrument is subjected to content validation, it underwent a series of scrutiny before being considered suitable for use by experts. Reliability of the instrument was determined using Cronbach Alpha. A reliability co-efficient of 0.77 was obtained, which indicate that the instrument was reliable for data collection. The researchers with two trained research assistants adopted the technique of on-the-spot distribution and collection. This ensured a complete return rate of the distributed questionnaires.

## 4. RESULT

The data collected were analyzed using frequency distribution and percentages.

**Table 1:** Mean and S. D. Scores of teachers' Views on the Training on Use of Technology in their Teaching

S/N	Variables	Frequency and Percentage			
		SA	A	D	SD
1	I have attended many seminars on how to use technology in teaching and learning	12 (30.0)	14 (35.0)	9 (22.5)	5 (12.5)
2	Technology enhances my professional development	14 (35.0)	10 (25.0)	10 (25.0)	6 (15.0)
3	I have experience combining face-to-face and web technologies in teaching.	13 (32.5)	9 (22.5)	10 (25.0)	8 (20.0)

4	Negative attitude towards technology-based teaching will be discouraged.	14 (35.0)	11 (27.5)	10 (25.0)	5 (12.5)
5	Eases pressure on me as a teacher	16 (40.0)	7 (17.5)	8 (20.0)	9 (22.5)
6	I am aware of the great opportunities that technology offers for effective teaching.	11 (27.5)	10 (25.0)	10 (25.0)	9 (22.5)
7	There are too many technological changes that are coming too fast without enough support for teachers.	14 (35.0)	10 (25.0)	10 (25.0)	6 (15.0)
8	Training on the use technology helps teachers to improve teaching with more updated materials.	15 (37.0)	13 (32.5)	7 (17.5)	5 (12.5)

#### 4.1 Research Question 1

Based on the construct of Table 1 on the views of teachers on the training of how to use technology, it indicates that all the items i.e. item 1-8 are positively worded with higher percentage acceptance. This shows that, all the answers are in consistent with the obtained literature on the importance training the teachers on the use technology. It is an

important to have frequent training especially on any new educational device or software program, especially in one-to-one settings where teachers need to use the classroom technology to its full potential. This becomes even more essential when introducing new technology, as every new product has a learning curve and can add more to the teaching process than traditional methods with which teachers may be more comfortable.

**Table 2:** Mean and S. D. Scores of teachers' Views on the Use of Technology in Classroom.

S/N	Variables	Frequency and Percentage			
		SA	A	D	SD
9	The use technology is very essential in teaching.	16 (40.0)	7 (17.5)	8 (20.0)	9 (22.5)
10	Technology increases students' academic achievements	16 (40.0)	12 (30.0)	7 (17.5)	5 (12.5)
11	Enhance interaction between teacher and students	15 (37.5)	10 (25.0)	9 (22.5)	6 (15.0)
12	Motivate students to be more actively involved in learning activities	14 (35.8)	12 (30.0)	9 (21.5)	5 (12.7)
13	Technology eases my choice of instructional materials	15 (37.5)	11 (27.5)	8 (20.0)	6 (15.0)
14	Gives teachers opportunity to be learning facilitators instead of information providers	13 (32.5)	10 (25.0)	9 (22.5)	8 (20.0)
15	Students concentrate more on learning activities.	14 (35.0)	13 (32.5)	8 (20.0)	5 (12.5)
16	Technology makes learners lose control over the learning process	7 (17.5)	11 (27.5)	12 (30.0)	10 (25.0)
17	Students understand more easily what they learn.	14 (35.0)	12 (30.0)	9 (22.5)	5 (12.5)
18	Target class students allowed the use of technological device in the classroom.	12 (30.0)	14 (35.0)	9 (22.5)	5 (12.5)
19	Result students neglecting important traditional learning resources	11 (27.5)	10 (25.0)	10 (25.0)	9 (22.5)
20	Use of technology in teaching is a waste of time.	4 (10.0)	7 (17.5)	14 (35.0)	15 (37.5)

#### 4.2 Research Question 2

The results obtained from the Table 2 above with item 9-20 that would want to determine the use of technology in the classroom, teachers show positive need to be competent enough to handle technology, to be able to use it in their instructional activities. From the findings they agreed use of technology is very essential in teaching.

### 5. DISCUSSION

Based on the table 1 the result indicates that majority of the teachers agree that the training on the use of technology has improved their teaching practice in classrooms especially (variable 5 with 40.0% Strongly Agree and 20.4% Agree) indicates training received by the teachers eases pressure on their teaching. The variable 6 (with 27.5% Strongly Agree and 25.0% Agree) and variable 7 (with 35.0% Strongly Agree and 25.0% Agree) respectively shows that teachers aware of the consistent need for updating their technological skills over time due the fact that, there are too many changes coming very fast despite they received low support from the government. The findings of this research can be support by who concluded one of the main factors that inhibit the use of ICT in teaching in Nigeria is lack of training on how to use ICT tools among teachers [12].

Table 2 indicates the percentage of teachers' views on the use of technology in the classroom. Variable 20 with (with 35.0% Disagree and 25.5% Strongly Disagree) signified highest level of teachers' integration

and positive perception on the use. When it comes using technology in the classroom, it's vital to understand the distinction between training teachers how to use the technology and how to incorporate the technology effectively in teaching. The aim of this study is to explore the perception of teachers on training of using technology and using the technology in the classroom by the teachers of associate schools trained under TDP project. The motive that necessitate to the study was the fact that, despite the literature available on need for the use of technology in the classroom, greater percentages of teachers in Nigeria are still not trained or not using technology in their instruction.

This can be supported by research findings of where they discovered poor technology use in the school was because of low level of competency (training) and accessibility [13]. They further lamented that teachers have high level of perceived usefulness, perceived ease of use, but based on their findings they concluded that, there is little or no use of technology because of lack of access to technological materials. The discovery of low level of teachers' competency and accessibility of ICT is similar to the finding which revealed that teachers had low level of ICT accessibility and were being hindered from using ICT in teaching because of it [14]. The finding of this study is also in line with the finding from another study done in Nigeria by another study conducted in Cameroon supported the finding in this section of the study by reporting that secondary school teachers in Cameroon have ICT accessibility which leads to low level of ICT use in the classroom [15].

## 6. CONCLUSION

The most important reasons why teachers fail to make good use of technology in their instructions generally is lack of training and accessibility as it was highlighted by many studies. Based on the findings of this researchers make the following recommendation:

- Government should revise the educational policy to include education course at all level not just a course to be taken once in a lifetime of the teacher trainer.
- Government should provide on-the-go extensive training/seminars/workshops that is consistently moving with technological changes.
- Technological tools and environment or the use should be provided by the government to the teachers.
- Governments should sponsor a research to gather the available literatures on problems and prospect of training/implementation/preservation of technological tools and implement it.

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