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ATTITUDE AND PERCEPTION OF SECONDARY SCHOOL TEACHERS' TOWARD THE USE OF MOBILE TECHNOLOGIES FOR INSTRUCTION

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ABSTRACT

Technology has advanced so much that the geographical gap is bridged with the use of tools that make you feel as if you are inside the classroom. E-learning offers the ability to store material in all kinds of formats such as videos, animations, word documents and PDFs. Conducting webinars (live online classes) and communicating with professors' chat and message forums is also an option available to users.

Teaching and learning in 21st century is undergoing a rapid paradigm shift as there have been a great clamoring for the introduction of Mobile Technologies into the teaching and learning process. The study was geared towards investigation of secondary school teachers' attitude and perception towards the use of mobile technology for instruction and learning. Survey research design was adopted. The sample comprised Seventy Five teachers. A structured questionnaire was utilized in collecting data while percentage, mean and standard deviation were used to analyze the data collected. The results of the study indicated that secondary school teachers in Baruten Local Government Area, Kwara State only have access to few mobile technology facilities while the majority and most important ones were partially accessible. Also, they had positive attitude and perception towards the use of mobile technology for teaching and learning. There was a significant difference on teachers' attitude towards the use of mobile technologies for instruction based on their areas of specialization. No significant difference existed in the teachers' perception on the use of mobile technologies for instruction based on their gender. It was therefore recommended that school proprietors should provide adequate mobile technologies for the teachers as well as continuous training on the use of mobile technology for teaching in Kwara State.

the process of teaching and learning. Some educators suggest that the use of mobile technologies can answer an education and could have a particularly significant role to play in learning process accurately and effectively. Within the context of modern mobile phones, mobile is can give access to the web based content, email, it, phone, it, computer with internet, and other multimedia facilities for the educational teachers to use as a global audience. (Averantier 2004, Perry 2009, &Traxler 2005)

Mobile technology has been at a variety of educational settings for a several purposes and educational goals. While the claim about the positive impact of the use of mobile technologies in different aspects of education are copious, data on how these technologies support to example the understanding of complex concepts or the development of learning skills that enable students to think critically and solve problems are limited. (Naimsmith & Condale, *Virtuality & Examples* 2005). Mobile technology refers to any device that you can carry with you to perform a wide variety of tasks. It is technology that allows these tasks to be performed on cellular phone, PDA, laptop, among others. A standard mobile technology has gone from being no more than a simple two-way pager to being a cellular phone, a GPS navigation system, a web browser, and instant messenger system, a video gaming system, and much more. It provides the use of a variety of transmission media such as radio wave, microwave, infra red, GPS and Bluetooth to allow for the transfer of data, voice, text, video, 3-dimensional graphics and more. (Saichendi, n.d)

During the past few years there have been tremendous strides in the advancement of technology with the use of mobile technology leading to an era characterized by the instant access to the mobility of information. Mobile technologies such as cellular phones, personal audio players, personal digital assistants and portable computers have reshaped and redefined the ways in which information is constructed, accessed and communicated among individuals and societies. As these mobile devices converge and wireless connectivity becomes more prevalent, remarkable technical capabilities are offered and profound innovative learning possibilities are now made feasible. (Kukulska-Hulme 2005)

We are beginning to see significant effects of these technologies in secondary and higher education within individual and the communities and in teaching and learning. They are having an impact on teaching, learning and on the connections between formal and informal learning. Researchers have argued that these technologies have the potential to improve efficiency and effectiveness on teaching and learning and to challenge the essence of face-to-face teaching and learning. (Dubendorf 2003, Kukulska-Hulme 2005). In examining the benefits of mobile technologies in education Kim, Mims, and Holmes (2009) summarize as follows: mobility which is associated with the advantage of accessing information anytime, anywhere; information management capability which is associated with the digitization of information and electronic-based

management and security which are the of bringing this into the
and in 1991 (1992)

We are in the midst of a global technological boom that has in the words
Friedman (2007) changed the world. Because of the Internet, connections
people all across the world. Students are now able to
get instant information about happenings all over the world, which is a far
from simply relying on information that was printed in textbooks years ago. Now
young people have access to a world of manipulating technology that he
surpasses the knowledge of most adults. Students have learnt how to type
papers while listening to MP3 players and at the same time send text messages
to friends on their cell phones. Students have been exposed to the world
technology is so widely age. Secondly school administrators now face the
challenge of students using technology to record any deal with difficult
All about in their classrooms. These recordings can either be posted on social
websites such as YouTube, Facebook and Myspace or simply submitted to the
press (Friedman, 2007)

Mobile technologies are being used to the demand in distance education
to reach out to students in order to deliver learning material to students.
Teachers can record their lectures and make them available for students to listen
wherever they like. Providing teaching and learning material in audio format is
important in some subject especially as when learning a language and English
Literature. The mobile technologies are also used to connect to students to
information when subject requirements are due and informing them on updates
to each subject. Mobile technologies can be used in any discipline that can be
broken down into small segments of instruction (Ali & Ali, 2005). Hence they
allow students to learn one segment at a time. In addition to playing a
supportive role in classroom instruction, mobile technologies can play a major
role in distance education by delivering instruction anywhere and at any time.
Books and course information would have to be formatted to read on a computer
and mobile device screens. A good example of how this is being realized in the
information on the screen can be read in daylight as well as in the dark. The
small screens on the mobile technologies are becoming more advanced for
reading. As with the development of the virtual screen, students will be able to
project information and images on a surface that is the same size as a regular
computer screen (Ali & Ali, 2005). Because of the feature of portability, mobile
technologies offer continuous accessibility to learners who can view the learning
resources or take information conveniently.

Mobile technologies are increasingly equipped with capabilities that can
communicate easily with each other through radio waves or Wi-Fi rather than
traditional cables or wires. Consequently, learners can easily share information
across network resources or interact with others. The wireless feature enables
learners to keep contact with each other no matter the distance. As a result

collaborative learning is more likely to occur with the support of technology (Manning, 2003). Mobile technologies can have a positive effect on how teachers and learners learn. The ability to support these technologies in the design of curriculum, can enhance the engagement of teaching and learning by enabling more options for learners to interact with course content as well as to share learning (Dallach, 2003; Richardson, 2005).

Perception is process of interpreting sensory information to obtain a unified view of the world around us. The process is often based on incomplete and unshared information. Perception is equated with reality for most practical purposes and guides human behaviour. In general Perception can be seen as a way of understanding 'things' within psychological reality to process or use information received. Perception is an act of becoming cognizant by the senses or indirect apprehension by the bodily organs, many the mind of what is presented to them and/or direct apprehension cognition (Foster 2013). Perception has been reported to depend heavily on the background knowledge (Daramola 2015).

Literature have established a strong connection between individual perception and ability to produce a particular form of action to object. The behavioural and of perception is that of reaction or response whether overt or covert which is necessary if perception is to be considered a behavioural event and thus a psychological process. As a result of perception, an employee may move rapidly or slowly or develop an attitude towards an object (Luthans, 1998). So, correct perception is higher reality. Perception in communication determines how one will communicate and how they will receive information from another person. Perception in communication is based on the difference.

Gender is a factor in every aspect of human endeavour and has an important role in the use of mobile technologies. Gender refers to those that discover and new ways of doing things in a particular perspective. Gender and mobile technologies have a significant gender relation (man or woman) as they react to the existence or perception of how technologies in the improvement of teaching and learning process (Orwa, 2008). Daramola (2011) refers to gender as a social role and opportunity is associated with being male and female. The mutual relationship which is constructed and is learned through socialization process and technology in teaching nature to meet their needs. Studies over the years have suggested that there is a technological gender gap between males and females with female lingers falling behind their male peers in the use of computers and other

Statement of the Problem

Mobile technology devices are not the only effective teaching tools for content delivery in the classroom. The application of mobile devices for learning is particularly in Nigeria secondary school is still at its infancy. The majority of Nigerian secondary school teachers are neither familiar nor skilful in

employing these tools for instruction in the classroom. It is of high importance that the traditional teaching method should be supplemented with mobile devices which can stimulate the course students' interest to learn effectively, which will greatly influence their academic performance positively and consequently facilitate delivery of instructions in the classroom. Most Nigerian secondary school teachers and student, with possession of these mobile devices utilize them for entertainment purposes listening to music, chatting on social media sites, which may not have any positive impact on both the teacher and the learner. In Nigerian secondary schools much has not been done in employing mobile devices as instructional tools for instruction. To the best knowledge of the researcher there are dearth of studies on how mobile devices can be utilized for instruction and how it can affect student learning rate. In the light of this, this study attempts to investigate the attitude and perception of secondary school teachers towards the use of mobile technology devices for instruction in Kogi State.

Methodology

A descriptive research of the survey type was used for this study. It was targeted at secondary school teachers' attitude and perception toward the use of mobile technologies for instruction in Kogi State. This method was deemed the most appropriate design for this study because it involves gathering a chosen sample from a large population. The target population for the study comprised of the teachers in the selected secondary schools in Kogi State. However, 5 secondary schools were purposively selected for the study, 30 teachers were selected randomly from 5 selected Secondary Schools. While, gender and area of specialization was used to classify the teachers based on their gender and area of specialization. The questionnaire was validated by three lecturers from the Department of Educational Technology, Faculty of Education and University of Ibadan. The experts made necessary comments and constructive criticisms which were used in the preparation of the final draft of the questionnaire. The research instrument was tested for validity and reliability using split-half method. The researcher personally administered the questionnaire to the respondents and was able to retrieve 75% of the questionnaires from the respondents 25 that is 25% of the respondents were not available at the time of retrieval. The obtained data was analyzed using descriptive and inferential statistics. In analyzing Descriptive statistics such as mean, percentages, mean standard deviation were employed to answer the first research question. Analysis of Variance (ANOVA) was used to test Hypotheses 1 and 2.

Research Questions

The following research questions were raised to guide this study

1. How do secondary school teachers perceive the influence of mobile technologies for instruction?
2. How do secondary school teachers perceive the perceived usefulness of mobile technologies?
3. What factors secondary school teachers perceive influence the use of mobile technologies for instruction?

Research Hypotheses

Based on the research question, the following hypotheses were tested:

- H₀₁: There is no significant difference between male and female teachers' perception in the use of mobile technologies for instruction.
- H₀₂: There is no significant difference between male and female secondary school teachers' attitude towards the use of mobile technologies for instruction.

Analysis of Research Questions

Research Question 1: What is the perception of secondary school teachers on the use of mobile technology for instruction?

Table 1: Perception of Secondary School Teachers on the use of Mobile Technology for instruction

S/N	Items	54(%)	40(%)	0(%)	50(%)
1	Teachers use the use of mobile technology as a positive influence on their learning performance	30%	82%	12%	10%
2	Teachers lack of interest in the use of mobile technology	2%	28%	58%	12%
3	Mobile technology, remain an impediments to effective teaching and learning	12%	30%	58%	10%

4	Teachers believe that mobile devices have significantly contributed to the failure of secondary school students.	20%	33%	33%	14%
5	Good questions and evaluation cannot be effectively access in the use of mobile technology.	14%	48%	33%	5%

Table 4 reveals that, the majority believe that the use of mobile technology has positive influence on their teaching profession with 84 respondents representing 84% agree and 18 respondents representing 18% disagree. Majority of the respondents agree that the use of mobile technology by secondary school teachers has positive influence on their teaching profession. Teachers lack of intent to use of mobile technology is also an attitude that affects the use of mobile technology with 30% agree while 70 and 7.2% disagree. Mobile technology serves as impediment to effective teaching and learning with 48% respondents agree while 33% disagree.

Research Question 2: What is the influence of secondary school teachers' genders influence perceived usefulness of mobile technologies?

Table 2 Teachers Perception toward the Use of Mobile Technology Based on Gender

Gender	N	Mean	SD
Male	52	20.62	2.62
Female	48	18.33	4.85

Table 2 shows that mean scores and female teachers' perception towards the use of mobile technology. Male teachers ($M = 20.62$, $SD = 2.62$) and the female teachers ($M = 18.33$, $SD = 4.85$) are different. Hence there was a difference between male and female teachers' perception towards the use of mobile technology. The difference is in the direction of the male teachers' perception towards the use of mobile technology.

Research Question 3: What is the attitude of secondary school teachers on the use of mobile technology in the secondary schools?

Table 3 Attitude of Secondary School Teachers on the use of Mobile Technology

SN	Items	Agree	Disagree	Mean	SD
1	The use of mobile technology should be limited to teachers with high qualifications only	0%	81%	80%	0.40
2	Teachers with low qualifications should not be using mobile technology in learning environments	25%	74%	79%	0.39
3	Mobile devices should only be used by female teachers in secondary schools	45%	55%	50%	0.50
4	Mobile devices should only be used by male teachers in secondary schools	25%	74%	50%	0.50
5	The use of mobile technology should be limited to teachers	75%	25%	40%	0.40

Table 3 reveals that the use of mobile technology should be limited to teachers with high qualifications with 25% respondents agree while 75% disagree. Majority of the respondents' responses shows that the use of mobile technology should not be limited to teachers with high qualifications only. Teachers with low qualifications should not be using mobile technology in learning environments with 15% respondents agree while 85% disagree. Mobile devices should only be used by female teachers in secondary schools with 45% of the respondents agree while 55% of the respondents disagree. Majority of respondents

Hypothesis Testing

Hypothesis 1: There is no significant influence between male and female teachers' perceptions on their use of mobile devices for classroom

Table 3 Teachers' Perceptions Towards the Use of Mobile Technology for Learning Based on Age Gender

Female	N	Mean	SD	Or	t	Sig. (2-tailed)	Normal
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Female	25	4194	4194	73.3350	0.229	Not Significant
Male	50	4194	6505			

Table 1 reveals that $(70) 1 = 3.43, p = .229$. This means that the null hypothesis was not rejected. This was as a result of t -value of 3.43 resulting in 0.23% significant value greater than 0.05 alpha levels. By implication, the stated hypothesis established that there was no significant difference between teachers' perception towards the use of mobile technologies based on their gender.

Hypothesis 2: There is no significant difference in secondary school teachers' attitude towards the use of mobile technologies for instruction.

Table 4: Teachers' Attitude towards the Use of Mobile Technologies for Instruction Based on their Area of Gender

	Sum of Squares	df	Mean Square	F	Sig.	Remark
Between Groups	21163.2	25	77.327	2.111	.052	Rejected
Within Groups	1785376	48	37195.333			
Total	1806539.2	73				

Table 2 reveals that $F(25, 48) = 2.111, p = .052$. As Teachers' Attitude towards the Use of Mobile Technologies for Teaching based on their area of specialization. This was found to be significant, meaning that there was a significant difference in the teachers' attitude towards the use of mobile technologies for teaching. Since p was calculated that there was a significant difference in the teachers' attitude towards the use of mobile technology based on their area of specialization, therefore the null hypothesis which stated that there is no significant difference in Teachers' Attitude on the use of mobile technologies based on their area of specialization is rejected.

Discussion of Findings

The study revealed that teachers' attitude and perception towards the use of mobile technologies for academic purpose was positive and teachers' willingness not access to these facilities were not enhance teaching and learning. The

Further, it was found that for Nigerian secondary school teachers to effectively use mobile technologies for teaching, there is a need for an improvement in the current level of teachers' ICT skills, provision of more training, and a change of the teachers' area of specialization more training is required for all teachers. This is so because the use of mobile devices is outwards of the areas of specialization and their competency level goes along with the rate of adoption of technology.

Furthermore, significant difference was found between male and female teachers' Attitudes towards the use of Mobile Technologies. This implies that Secondary School Teachers' gender has influence on their attitude and perception in the use of mobile technologies for teaching.

Conclusion

The use of Mobile Technologies is changing teaching in several ways. The study explored teachers' attitude and perception in the use of mobile technologies for teaching in Bakura Local Government Area, Kwara State.

The result obtained from data gathered and analyzed in this study indicates that the attitude and perception of the teachers are positively moderate. There was no significant difference in the teachers' perception on the use of mobile technologies for teaching based on gender. Finally, there was a significant difference between Secondary Schools Teachers' Attitudes on the Use of Mobile Technologies for Teaching based on gender. The result of this study could enhance the use of mobile technologies for teaching in Nigeria secondary schools.

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