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Exploring the Effectiveness of Mobile Smartphones in Teaching Islamic Studies among Senior Secondary Schools

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Abstrak

Kebutuhan guru Agama Islam di Sekolah Menengah Atas untuk sepenuhnya mengintegrasikan perangkat ICT, khususnya ponsel pintar, dalam meningkatkan pengajaran yang efektif dan efisien dalam proses digital dibandingkan dengan metode pengajaran tradisional tidak boleh dianggap remeh. Penelitian ini bertujuan untuk menganalisis integrasi TIK ponsel pintar untuk pengajaran studi Islam yang efektif di sekolah menengah atas. Penelitian ini mengadopsi metode penelitian kuantitatif. Instrumen yang digunakan untuk pengumpulan data divalidasi oleh tiga ahli Tes & Pengukuran yang dianggap sesuai untuk penelitian ini. Teknik simple random sampling digunakan untuk memilih 194 dari 307 guru agama Islam sekolah menengah atas sebagai ukuran sampel penelitian. Kuesioner berjudul "Integrasi Efektif Ponsel Cerdas untuk Pengajaran Kuesioner Sekolah Menengah Atas (EIMSTSSQ)." Reliabilitas instrumen ditentukan dengan menggunakan teknik reliabilitas tes ulang. Nilai koefisien korelasi diperoleh sebesar 0,87. Temuan penelitian ini mengungkapkan bahwa guru mata pelajaran agama Islam di sekolah menengah atas mengintegrasikan ponsel pintar untuk pengajaran pelajaran agama Islam yang efektif. Selain itu, penelitian ini mengungkapkan bahwa keterampilan Aplikasi seluler, keterampilan Internet, keterampilan literasi ponsel pintar, kemahiran teknis, keterampilan komunikasi, keterampilan kreativitas, organisasi dan manajemen waktu, keterampilan fleksibilitas dan pengetahuan pedagogis adalah keterampilan yang dibutuhkan untuk integrasi ponsel pintar untuk pengajaran yang efektif. dari sekolah menengah atas. Penelitian lebih lanjut mengungkapkan bahwa guru laki-laki dan perempuan mengintegrasikan ponsel pintar untuk meningkatkan efektifitas pengajaran pelajaran Islam di sekolah menengah atas.

***Kata kunci*:** *Integrasi ICT, Mobile Smartphone, Pengajaran Efektif*

Abstract

The need for Islamic Religious teachers in Senior High Schools to fully integrate ICT tools, especially smartphones, in enhancing effective and efficient teaching in digital processes compared to traditional teaching methods should not be underestimated. This study aims to analyze the integration of ICT mobile smartphones for effective teaching of Islamic studies among senior secondary schools. This study adopted research quantitative method of research. The instrument used for data collection was validated by three experts in Test & Measurement who found it appropriate for this study. A simple random sampling technique was used to select 194 out of 307 senior secondary school teachers of Islamic studies as the sample size of the study. A questionnaire titled "Effective Integration of Mobile Smartphones for Teaching Senior Secondary Schools Questionnaire (EIMSTSSQ)." The reliability of the instrument was determined using the test re-test reliability technique value of the correlation coefficient obtained at 0.87. The findings of the study revealed that senior secondary school teachers of Islamic studies integrate mobile smartphones for effective teaching of Islamic studies. Also, the study revealed that mobile App skills, Internet skills, mobile smartphones literacy skills, technical proficiency, communication skills, creativity skills, organization and time management, flexibility skills and pedagogical knowledge are the skills needed for the integration of mobile smartphones for effective teaching of senior secondary school. The study further revealed that male and female teachers integrate mobile smartphones to enhance the effective teaching of senior secondary school Islamic studies.

Keywords: ICT Integration, Mobile Smartphone, Effective Teaching

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1. INTRODUCTION

It is undeniable that information and communication technology (ICT) can revolutionize the learning environment and can improve the learning process (Siti et al., 2021; Suraweera et al., 2018; Suyatna, 2020). Information and Communication Technology has impacted the quality and quantity of teaching and learning through its dynamic, interactive and engaging content can provide real opportunities for individualised instruction

and offer innumerable benefits in enriching the quality and quantity of instructional materials accessible to both teachers and learners (Jaya Saragih et al., 2020; Qodr et al., 2021; Vartiainen et al., 2016). Information and Communication Technology has the potential to accelerate, enrich and deepen skills; motivate and engage students in learning; help to relate school experiences to work practices; help to create economic viability for workers; contribute to radical changes in school; strengthen teaching and provide opportunities for connection between the school and the world (Avando Bastari et al., 2021; Bhattacharjee & Deb, 2016; Qekaj-Thaqi & Thaqi, 2021). Previous study identified ICT media to include mobile smartphones, radio, television, computer and internet facilities, computer game consoles, DVD players and recorders, digital cameras, scanners and a host of other devices (Ibrahim et al., 2018; Rohmah & Bukhori, 2020). In recent times, there has been intense advocacy both nationally and internationally for the application of mobile smartphones in the teaching and learning process.

The integration of modern Information and Communication Technologies (ICTs) into the teaching and learning processes in Nigeria is fast gaining momentum. As a result, many local and foreign organisations partner to promote the application of ICTs in schools (Ahmed & Inti, 2021; Tella & Bashorun, 2012). Similarly, the Kwara State government through the State Ministry of Information and Communication in conjunction with the Ministry of Education, Science and Technology has embarked on seminars and workshops on the integration of ICT for teaching across the state. Previous study stated that teachers need to acquire sound knowledge of technology skills to integrate ICT, but noted that it is not a requirement for effective use of technology in the classroom (Badmus, 2022). They argue that training programs that concentrate on ICT pedagogical training and effective technical support instead of technical issues, help teachers apply technologies in teaching and learning.

When technology is introduced into teacher education programs, the emphasis is often on teaching about technology instead of teaching with technology. Hence, inadequate preparation to use technology is one of the reasons that teachers do not systematically use computers in their classes. Teachers need to be given opportunities to practice using technology during their teacher training programs so that they can see ways in which technology can be used to augment their classroom activities (Mutohhari et al., 2021; Paidican & Arredondo, 2022). Teachers are more likely to integrate ICT in their courses when professional training in the use of ICT provides them time to practice with the technology and to learn, share and collaborate with colleagues. It is pertinent to note that when teachers are adequately trained on how to apply ICT in school to supplement their teaching activities, learn, share and collaborate with peers, it is likely that they will integrate the technology into their teaching (Garba et al., 2015; Quinões & Rusu, 2017). Similarly, previous study found that one of the top three barriers to teachers' use of ICT in teaching students was the lack of training (Vaportzis et al., 2017). Other study submitted that failure to give adequate training to teachers on the use of ICT in Turkish schools negatively affects the teaching and learning process (Birhan et al., 2021). However, previous study observed that time for training, pedagogical training, skills training and ICT use in initial teacher training are fundamental factors that should be considered to facilitate the application of ICT in education (Baran et al., 2011; Hwang et al., 2022).

Information and Communication Technology (ICT) tools present a lot of benefits in enriching the quality and quantity of instructional materials accessible to both teachers and learners. It is becoming increasingly important that teachers have multiple and diverse sets of ICT tools to meet the needs of teaching that will enhance knowledge through multiple mediums (Shanks et al., 2017; Vartiainen et al., 2016). Thus, the need for the teachers of Islamic Studies at the Senior Secondary to fully integrate ICT tools particularly mobile smartphones in enhancing effective and efficient teaching in a digitalized process instead of

traditional methods of teaching can never be underestimated. Furthermore, teachers of Islamic studies must be aware that teaching and learning have gone beyond a teacher standing in the classroom but rather with improved instructional resources via ICT tools (mobile smartphones, computers, multimedia projectors and a host of other devices) that make teaching and learning real and interesting (Al-Dawood, 2022; Torres-Gastelú & Kiss, 2016). It is highly disturbing to see the low academic performance recorded among the senior secondary students of Islamic studies which may be attributed to the lack of quality, effective and efficient instructional delivery method adopted by the senior secondary school teachers of Islamic studies in Ilorin, Kwara State.

The main purpose of this study is to analyze the integration of ICT tools, particularly mobile smartphones for effective teaching of Islamic studies in some selected senior secondary schools in Ilorin, Kwara State, Nigeria. Specifically, this study examined: Integration of mobile smartphones for effective teaching senior secondary school Islamic studies, skills needed for integration of mobile smartphones for effective teaching senior secondary school Islamic studies based on qualification, and factors militating against effective integration of mobile smartphones for effective teaching of senior secondary school Islamic studies in Ilorin, Kwara State.

2. METHODS

This study adopted research quantitative method of research (Gopalan et al., 2020). The researchers-designed questionnaire tagged "Questionnaire on Effective Integration of Mobile Smartphone for Teaching Senior Secondary Schools in Ilorin, Kwara State, Nigeria" were used as instruments for this study. Simple random sampling eliminate any bias from the sampling process groupings in chosen at random. A simple random sampling technique was used to select 149 out of 307 senior secondary school teachers of Islamic studies as the sample size of the study. The instrument used for data collection was validated by three experts in Test & Measurement who found it appropriate for this study. The reliability of the instrument was determined using the test re-test reliability technique within a two-week interval. The scores of the two tests were correlated using Pearson's Product Moment Correlation (PPMC). The value of the correlation coefficient obtained was 0.87. Three research questions were raised and answered using the percentage while the null hypothesis raised was tested using an independent-sample t-test statistical tool. Similarly, the instrument was personally administered by the researchers and research assistance to all 194 senior secondary school teachers of Islamic studies in Ilorin, Kwara State, Nigeria. The researchers sought permission from all the heads of the sampled schools in Ilorin, Kwara State. Twenty-five items were designed for the respondents to react to by ticking "Yes (Y)" or "No (N)"; "Needed (N)" or "Not Needed (NN)"; and "Agree (A)" or "Disagree (D)".

3. RESULTS AND DISCUSSION

Results

Table 1. Frequency Distribution of the Respondents

S/N	Items	Frequency	Percentage (%)
1	S.S.I	64	33
2	S.S.II	65	33.5
3	S.S.III	65	33.5
Total		**194**	**100**

Table 1 shows that 64 (33%) of the respondents are senior secondary school I teachers of Islamic Studies, 65(33.5%) of the respondents are senior secondary school II teachers of Islamic studies while 65(33.5%) of the respondents are senior secondary school III teachers of Islamic studies in Ilorin, Kwara State. Integration of mobile smartphones for effective teaching is show in Table 2.

Table 2. Integration of Mobile Smartphones for Effective Teaching

S/N	Items	Yes (Y)	No (N)	Infereces
1	I used Mobile App for teaching Islamic studies	179(92.3%)	15(7.7%)	Y
2	I used Internet for Teaching Islamic studies	107 (55.2%)	87(44.8%)	Y
3	I do not own brows able mobile smartphones	91 (46.9%)	103 (53.1%)	N
4	I used Mobile smartphone to deliver instructions to the students	187 (96.3%)	7 (3.7%)	Y
5	I do use Smartphone for social media only	95(49%)	99(51%)	N

Table 2 shows that 179(92.3%) of the respondents used mobile apps for teaching senior secondary school Islamic studies while 15(7.7%) of the respondents did not. Also, 107(55.2%) of the respondents used the Internet for teaching senior secondary school Islamic studies while 87(44.8%) of the respondents did not. Similarly, 91(46.9%) of the respondents do not own browsable mobile smartphones while 103(53.1%) of the respondents own browsable mobile smartphones. In a similar vein, 187(96.3%) of the respondents used mobile smartphones to deliver instructions to the students while 7(3.7%) of the respondents did not. Consequently, 95(49%) of the respondents used mobile smartphones for social media only while 99(51%) of the respondents did not. This implies that senior secondary school teachers of Islamic studies integrate mobile smartphones for effective teaching of Islamic studies in Ilorin, Kwara State, Nigeria. Skills needed for integration of mobile smartphones for effective teaching is show in Table 3.

Table 3. Skills Needed for Integration of Mobile Smartphones for Effective Teaching

S/N	Items	Needed (N)	Not Needed (NN)	Inferences
1	Mobil App Skills	183(94.3%)	11(5.7%)	
2	Internet skills	191(98.5%)	3(1.5%)	
3	Mobile Smartphones literacy skills	193(99.5%)	1(0.5%)	
4	Technical Proficiency	187(96.3%)	7(3.7%)	
5	Communication Skills	190(98%)	4(2%)	
6	Creativity Skills	189(97.4%)	5(2.6%)	
7	Organization and Time management	173(89.2%)	21(10.8%)	
8	Flexibility Skills	167(86.1%)	27(13.9%)	
9	Digital Citizenship	91(46.9%)	103(53.1%)	
10	Pedagogical knowledge	193(99.5%)	103(0.5%)	

Table 3 shows that 183(94.3%) of the respondents needed mobile App skills, 191(98.5%) of the respondents needed Internet skills, 193(99.5%) of the respondents needed mobile smartphones literacy skills, 187(96.3%0 of the respondents needed technical proficiency, 190(98%) of the respondents needed communication skills, 189(97.4%) of the respondents needed creativity skills, 173(89.2%) of the respondents needed organization and

time management, 167(86.1%) of the respondents needed flexibility skills and 193(99.5%) of the respondents needed pedagogical knowledge for integration of mobile smartphones for effective teaching of Islamic studies while 103(53.1%) of the respondents did not need digital citizenship for integration of mobile smartphone for effective teaching of Islamic studies. This implies that mobile App skills, Internet skills, mobile smartphones literacy skills, technical proficiency, communication skills, creativity skills, organization and time management, flexibility skills and pedagogical knowledge are the skills needed for the integration of mobile smartphones for effective teaching senior secondary school Islamic studies in Ilorin, Kwara State, Nigeria.

Table 4. Factors Militating Against Effective Integration of Mobile Smartphones

S/N	Items	Agree (A)	Disagree(D)	Inferences
1	Limited Access to smartphone	171(88.1%)	23(11.9)	A
2	Limited Connectivity	154 (79.4%)	40(20.6%)	A
3	Distraction	137(71%)	57(29%)	A
4	Limited Space Size	87(44.8%)	107(55.2%)	D
5	Lack of technical skills	127(65.5%)	67(34.5%)	A
6	Security and privacy concerns	53(27.3%)	141(72.7%)	D
7	Teacher training and support	179(92.3%)	15(7.7%)	A
8	Cost	194(100%)	-	A
9	Instability of Electricity Power Supply	175(90.2%)	19(9.8%)	A
10	Low Attitudinal Interest	183(94.3%)	11(5.7%)	A

The data in Table 4 relate to the factors militating effective integration of mobile smartphones for teaching senior secondary school Islamic studies in Ilorin West, the result shows that 8 out of 10 factors militate against the effective integration of mobile smartphones for teaching Islamic studies while 2 out of 10 items were not considered as a factor militating against the effective integration of mobile smartphones for teaching Islamic studies in Ilorin West, Nigeria. Limited access to smartphones, limited connectivity, distraction, lack of technical skills, teacher training and support, cost, instability of electricity power supply and low attitudinal interest are the factors militating against effective integration of mobile smartphones for teaching Islamic studies while limited space size and security and privacy concerns were not considered as factors militating against the effective integration of mobile smartphones for teaching Islamic studies. This implies that limited access to smartphones, limited connectivity, distraction, lack of technical skills, teacher training and support, cost, instability of electricity power supply and low attitudinal interest are the factors militating against the effective integration of mobile smartphones for teaching senior secondary school Islamic studies in Ilorin, Kwara State, Nigeria. An independent-sample t-test was conducted on the responses from teachers of the sampled schools, the result is show in Table 5.

Table 5. Gender Difference in the Integration of Mobile Smartphones for Effective Teaching of Senior Secondary School

Gender	N	Mean	Std	T	Df	p-value	Decision
Male	87	3.05	0.467	1.57	192	0.117	Accepted
Female	107	2.93	0.554				

Table 5 shows that there was no statistically significant difference between male and female responses on the integration of mobile smartphones for effective teaching of senior secondary schools in Ilorin $\tilde{x}$ = (3.05; 2.93), t (1.57) = .117 p>.05. Since the p-value was

greater than 0.05 thresholds, the hypothesis was therefore accepted. It implies that male and female teachers integrate mobile smartphones to enhance the effective teaching of senior secondary school Islamic studies in Ilorin, Kwara State, Nigeria.

Discussion

Senior secondary school teachers of Islamic studies integrate mobile smartphones for effective teaching of Islamic studies in Ilorin, Kwara State, Nigeria. The finding of this study supported the submissions of previous studies whose findings revealed that teachers used ICT tools (mobile smartphones) to teach (Hromalik & Koszalka, 2018; Samerkhanova & Imzharova, 2018; Virvou et al., 2005). However, contrary to the finding of this study findings revealed that the integration of mobile smartphones leads to distraction, mental or behavioural disorders such as attitudinal changes to school or work, low level of social interaction with the society and psychological problems (Demirci et al., 2015).

Similarly, mobile App skills, Internet skills, mobile smartphones literacy skills, technical proficiency, communication skills, creativity skills, organization and time management, flexibility skills and pedagogical knowledge are the skills needed for the integration of mobile smartphones for effective teaching of senior secondary school Islamic studies in Ilorin, Kwara State, Nigeria. This finding supported the submission of previous study whose finding revealed that some skills necessary for the integration of mobile smartphones in education include critical thinking and problem-solving, communication and collaboration, information, media and technical skills (Piotrowska et al., 2022; Virvou et al., 2005). However, this finding contradicts the submission of Scanlon et al. (2005) whose findings revealed that pedagogical potential is the skill needed for the integration of mobile technology to enhance effective teaching and learning within and outside the classrooms.

In a related development, limited access to smartphones, limited connectivity, distraction, lack of technical skills, teacher training and support, cost, instability of electricity power supply and low attitudinal interest are the factors militating against effective integration of mobile smartphones for teaching senior secondary school Islamic studies in Ilorin West, Kwara State, Nigeria. This finding corroborated the submissions of previous study whose finding revealed that one of the top three barriers to teachers' use of ICT in teaching students was the lack of training (Roy, 2019). Also other study submitted that failure to give adequate training to teachers on the use of ICT in Turkish schools negatively affects the teaching and learning process (Qodr et al., 2021). However, other research observed that time for training, pedagogical training, skills training and ICT use in initial teacher training are fundamental factors that should be considered to facilitate the application of ICT in education (Baran et al., 2011; Ozdamli & Ozdal, 2018).

The implications of this research highlight the benefits of smartphones in teaching religious subjects to increase students' access to religious material, especially in the secondary school environment. This research reinforces the importance of religious education in secondary school curricula, and its implications may include reform of curricula and teaching approaches. However, this research has limitations may be limited to certain contexts and cannot be applied universally. The effectiveness of smartphone use in teaching can vary depending on factors such as technological infrastructure and student characteristics.

4. CONCLUSION

This study examined the integration of ICT tools, particularly mobile smartphones for effective teaching of Islamic studies among senior secondary schools in Ilorin, Kwara State, Nigeria. It is concluded that to enhance the effective integration of ICT tools particularly

mobile smartphones for effective teaching, certain skills needed to be acquired by teachers that would facilitate effective teaching of Islamic studies in Ilorin, Kwara State, Nigeria.

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