

## INFLUENCE OF SCHOOL LOCATION ON TEACHERS' ACCEPTANCE OF WHATSAPP/TELEGRAM FOR ONLINE INSTRUCTION

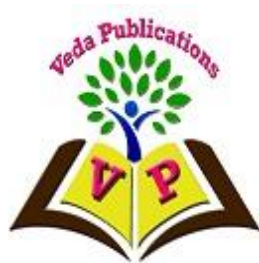
Temitope Adetokunbo Oteyola<sup>1\*</sup>, Oyetola, Oyeniran<sup>2</sup>, Omotayo Adebukola Afolabi<sup>3</sup> and Salome, Ireh<sup>4</sup>

<sup>1,2,3</sup>Department of Educational Technology and Library Studies, Faculty of Education, Obafemi Awolowo University, Ile Ife, Nigeria

<sup>1</sup>[toteyola@oauife.edu.ng](mailto:toteyola@oauife.edu.ng), <sup>2</sup>[ooyeniran@oauife.edu.ng](mailto:ooyeniran@oauife.edu.ng), <sup>3</sup>[aomotayo38@yahoo.ca](mailto:aomotayo38@yahoo.ca)

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### Abstract



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This study determined the teachers' level of acceptance of WhatsApp/Telegram for online instructions in secondary schools in Ondo East and Ondo West Local Government Areas of Ondo State. It determined the influence of school location on the teachers' acceptance of WhatsApp/Telegram for online instructions in the secondary schools. It also investigated the influence of teachers' characteristics (sex, qualification and years of experience) on the teachers' level of acceptance of WhatsApp/Telegram for online instructions across the secondary school locations and determined the relationship between the teachers' attitude towards and acceptance of WhatsApp/Telegram for online instructions in the secondary schools. The study adopted the descriptive survey research design. The population of the study consisted all the secondary school teachers in the local government areas. 299 teachers were selected across the schools using multistage sampling procedure. Teachers' Acceptance of Telegram/WhatsApp Based Online Classes was used for data gathering. Analysis of data showed that the level of acceptance of WhatsApp/Telegram for online instruction by the teachers is high (82.5%). Also that school location has no significant influence on the teachers' acceptance of WhatsApp/Telegram for online instructions. Results also revealed that sex has no significant influence on the teachers' acceptance of the tool ( $t_{(194)} = 0.67$ ;  $p > 0.05$ ). Academic qualifications also did not have significant influence on the teachers' acceptance of WhatsApp/Telegram ( $F_{(6,203)} = 1.26$ ;  $p > 0.05$ ). Years of experience as well had no significant influence on the teachers' acceptance of WhatsApp/Telegram ( $F_{(8,209)} = 1.52$ ;  $p > 0.05$ ).

**Keywords:** Acceptance, Online instructions, School location, Teachers' characteristics, WhatsApp/Telegram

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## Introduction

Adoption of Online instructional delivery mode in Nigeria educational system had been unsuccessful before the advent of Covid-19 pandemic. Attitude of secondary school teachers towards the integration of appropriate technology in providing learner's centred instructions had not been encouraging. In addition, several seminars and workshop being organized on application of ICT tools in instructional delivery and educational management seem not to have yield positive result. The lock down experienced at the peak of the pandemic actually forced the educational sector to look for alternative strategies for classroom instructions in Nigeria.

The Covid-19 pandemic affected the educational system in the country adversely. Students who were preparing for the West African Secondary School Certificate Examination (WASSCE) conducted by WAEC as well as National Examination Council (NECO) were unable to resume to schools. Secondary school students as well as students at the higher institutions of learning were not able to participate in face to face instruction for almost a year because of the interstate lockdown and the social distancing that was adopted in order to minimize the spread of Covid-19 among the populace. Places of worship, recreational centres and other public places were not left out. As a result of this, students' preparation for the WASSCE was somehow not possible. The students could not sit for the examinations as the scheduled time since the examinations have to be postponed across the West African countries that are member of WAEC. The fact that the students were unable to resume for school activities and the implication on the economic situation of private school owners as well as their teachers made the school owners and teachers apprehensive. The psyche of both the teachers and the students are also negatively affected. There was high rate of depression, rape and other social ills across the length and breadth of the country.

It was in a bid to forestall this situation that the Honourable Minister of Education Adamu Adamu as cited in Oteyola, Oyeniran, Awopetu and Bello (2021) advocated the adoption of online learning at all levels of education. The members of House of Representative also legislated that online instruction be adopted at all levels of education in the country. State governors across the Southwestern Nigeria adopted the use of Radio and Television. School owners adopted WhatsApp and Telegram for online classes while standard private schools also adopted the use of other Learning Management Systems (LMSs) like google classroom,

Edmodo, Moodle and so on. Some schools also adapted zoom, google meet and so on for online instructions.

Also because alternative instructional mode must be identified so that the students will not lose interest in schooling and so that they will not forget what had been taught overtime. The need to minimize job losses among the teachers in the private school is also an important factor in the adoption of online learning in classroom instructions. Classrooms been converted to poultry farms and for raising animals and some other non-education related conversion of schools were witnessed.

While teachers in the private schools were worried about job lose and payment of salary, their counterpart in the public schools have little or no worry. Their salaries are paid and the job appear secured. Oteyola et al (2021) quoting the Chairman Nigeria Union of Teachers (NUT) said that Nigeria educational system is not mature enough for online learning. The union opined that necessary infrastructure and facilities should be put in place before online classroom can be made feasible in the country. The Association of the Private School owners on the other hand argued that online learning is practicable and students should be allowed to resume. The Association argued that payment of staff salary will be difficult if students were not allowed to resume learning. Inability of educational activities to resume was opined will also lead to job losses and the multiply effect on the nation economy should be better imagined. Teachers in rural schools identified lack of electricity, non-accessibility to smartphones and internet access as major constraints to the adoption of online learning for classroom instructions.

WhatsApp is one the most widely used social media tool in Nigeria. Telegram because of its similarity with WhatsApp is also patronized by the people. The possibility of having more participants on a Telegram made it a suitable alternative to WhatsApp particularly in large group. Whatsapp/Telegram is cheap and affordable. It is user friendly and consume less data. WhatsApp/Telegram because of its interface can be adapted as a Learning Management Systems in online classes.

Ondo city is the second largest city in Ondo State. It is an agrarian and elitist society. Ondo East and Ondo West Local Government consisted of both rural and urban communities. There are five tertiary institutions in the local government areas. These are Adeyemi College of Education, Ondo State University of Medical Sciences which is the third specialized university in Africa, and Nigeria's first specialized medical university to be accredited by the National Universities Commission, Wesley University a private university owned by Methodist Church, Nigeria and Ondo City Polytechnic. The community also host National Institute for Educational Planning and Administration (NIEPA) which was established in 1992 by the Federal Ministry of Education, in collaboration with UNESCO/IIEP Paris, as a sub-regional staff college for West Africa. NIEPA seeks to realize its mission through capacity building, continuous training, consulting, and action research in educational planning, information dissemination and providing resource centre services. Ondo community pride herself in the adoption of western education and as highly adopter of educational innovations among the communities in Ondo State.

Teachers in the local government areas have access to smartphone and communicate with one another through Whatsapp and Telegram. At the peak of the lockdown witnessed as a result of Covid-19 pandemic, the teachers resulted to the use of Whatsapp/Telegram in online classes. There are divers' opinion on the effectiveness of Whatsapp/Telegram in classroom instructions and also on the teachers' acceptance of the tools for online classes. This study therefore set out to compare the acceptance of Whatsapp/Telegram for online instructions among teachers in the urban, rural and private schools in Ondo East and Ondo West Local Government Areas of Ondo State, Nigeria. The relationship between the teachers' attitude and their acceptance of the tools was also determined.

### 1.1 Objectives of the Study

The objectives of the study are to:

- (i) determine the teachers' level of acceptance of whatsapp/telegram for online instructions in secondary schools in Ondo East and ondo West Local Government Areas of Ondo State

- (ii) determine the influence of school location on the teachers' acceptance of Whatsapp/Telegram for online instructions in secondary schools in the local government areas
- (iii) investigate the influence of teachers' characteristics (sex, qualification and years of experience) on the teachers' level of acceptance of WhatsApp/Telegram for online instructions in the secondary schools
- (iv) determine the relationship between the teachers' attitude towards and acceptance of WhatsApp/Telegram for online instructions.

## 1.2 Research Question

What is the teachers' level of acceptance of whatsapp/telegram for online instructions in secondary schools in Ondo Metropolis?

## 1.3 Hypotheses

- H<sub>01</sub>: school location has no significant influence on the teachers' acceptance of WhatsApp/Telegram for online instructions in secondary schools in Ondo Metropolis of Ondo State.
- H<sub>02</sub>: sex has no significant influence on teachers' acceptance of WhatsApp/Telegram across the schools for online instructions in the metropolis.
- H<sub>03</sub>: academic qualifications has no significant influence on teachers' acceptance of WhatsApp/Telegram across the schools for online instructions in the metropolis.
- H<sub>04</sub>: years of experience has no significant influence on teachers' acceptance of WhatsApp/Telegram across the schools for online instructions in the metropolis.
- H<sub>05</sub>: there is no significant relationship between the teachers' attitude and their acceptance of WhatsApp/Telegram for online instructions.

#### 1.4 Literature Review

Application of WhatsApp for communication is prominent among Nigeria citizens. It is the most popular instant messaging platform been used across all the social strata in the country. It is a useful learning tool that makes posting, sharing content and engaging in online discussions easy and available anywhere and anytime (Alshammari, Parkes & Adlington, 2017). Alshammari et al (2017) argued that WhatsApp is particularly popular because it allows users to exchange text messages one-to-one or as group conversations. It also allow users to share documents and a variety of multimedia types as well as making voice or video calls. Students, teachers, artisans, professional with smart phones all have access to WhatsApp and Telegram.

Cetinkaya (2017) argued that the presence of positive and negative sides of social networks does not change the fact that these tools are rapidly becoming popular and gaining an important place in educational system. In recent years, instant messaging applications, which can be identified as mobile-based social networks, have started to become popular in classroom instructions. Church and De Oliveira (2013) observed that although there are a lot of instant messaging applications that can operate on mobile devices, WhatsApp application is one of the most favored mobile based applications. Church and de Oliveira (2013) also stated that WhatsApp has grown in popularity and that this is due to its benefits. These benefits include being able to send real-time messages to an individual or groups of friends simultaneously. Another important benefit is that it consume less data and also because of its end-end encryption which ensure adequate privacy.

WhatsApp according to Alshammari, Parkes and Adlington (2017) supports the development of language skills such as vocabulary, pronunciation, reading, and writing. As a result of this, WhatsApp/Telegram is considered as an effective tool for classroom instructions. Alshammari et al (2017) posited further that due to the novel potential of WhatsApp as a collaborative learning medium compared to SMS, the networking platform improves negotiation of meaning, the transferal, sharing and construction of language knowledge and active communication among students and teachers.

Aduba and Mayowa-Adebara, (2021) in their study found that WhatsApp, Telegram are platforms used for delivering online lectures by the LIS educators during the period of general lockdown caused by the COVID-19 pandemic. This they alluded was due to the fact that lecturers are always available and that whatsapp and telegram provide opportunity to store lectures and files for re-use at convenience. Also whatsapp and telegram made provision for collaborative learning, sharing learning materials, freedom in asking lecturer questions, and that the environments are conducive for online learning. It was also argued that teacher/students relationship can also be improved significantly with the use of WhatsApp in the academic environment. The adoption and use of WhatsApp was also believe makes the teaching/learning process an interactive, collaborative, and participatory activity for all students.

Basal, Yilmaz, Tanriverdi and Sari (2016) examined the use of WhatsApp in the Saudi Arabian context. The reports reflected the popularity of WhatsApp in the region. The use of WhatsApp for English language learning has been shown to improve all aspects of English usage including writing, reading, speaking, and knowledge of vocabulary and word choice and idioms. WhatsApp/Telegram therefore can be effectively used in online instruction.

According to Hamad (2017), almost all study-findings supported using WhatsApp to enhance students learning and enthusiasm. Using WhatsApp was posited helped students to develop English skills, enriched their vocabulary and learn from their mates' mistakes. The study laid out some disadvantages the students experienced which include materials preparation and effective class control by maintaining discipline in the group. Maria (2016) posited that using WhatsApp helps to motivate the learners to improve their writing skills despite that writing skills is considered the most difficult of the four language skills. Yuliantini, Paramita, Setyono, and Suciani (2021) said that learning with the Whatsapp Cooperative Learning method is more effective to be used in teaching writing.

Ahmed (2019) examined the pedagogical role of WhatsApp as one of mobile-assisted language learning applications in developing motivational levels of Yemeni EFL learners in order to develop reading and writing skills. Twenty EFL undergraduates of Aden University were made to join a WhatsApp English-medium chat group where they chatted, shared and

commented on news articles in English for two months. Participants also took a pre-test and a post-test and responded to a questionnaire at the end of the study. Results showed that WhatsApp was a very effective application in developing students' motivation to improve their reading and writing skills. Ahmed (2019) also reported that WhatsApp helped them to develop vocabulary, grammar, reading comprehension and writing. The study also revealed that WhatsApp was positively perceived by students as a pedagogical tool for their learning of English. The study concluded that WhatsApp English-medium groups provide students with opportunities for practising a natural language, especially in written communication, outside the classroom and motivate them to learn mutually. The study therefore recommends EFL teachers to utilize WhatsApp as a pedagogical technique and to encourage their students to create and join WhatsApp English-medium groups for natural interactions and contextualized language use that cannot be easily provided in traditional classrooms. In laying credence to this, Ningsih (2020) affirmed that WhatsApp can be used as online class tools. Also that it has effectiveness in online class pedagogically and that it is an easy and popular technology.

Cetinkaya (2017) explored the effects of WhatsApp use for education and determine the opinions of students towards the process. The study was designed in mixed research model which combines both qualitative and quantitative data. In the quantitative aspect of the study, quasi-experimental design, with a pretest-posttest control group was used and the data were analyzed by two factor variance analysis for mixed measurements. The results indicated that both learning environments have different effects on the success of students and that supporting the traditional environment by using WhatsApp is more effective for the increase of success. For the qualitative aspect of the study, content analysis techniques were employed to analyze the data which were collected by open-ended question forms. The analysis showed that students developed positive opinions towards the use of WhatsApp in their courses. They demanded the same practice in their other courses as well. They reported that learning could also take place unconsciously and the messages with images were more effective for their learning. However, a few students have expressed adverse opinions about the timing of some posts and the redundant posts within the group. Finally, it is suggested that use of WhatsApp in education process be encouraged as a supportive technology.

However, in studies on the use of different instant messaging platforms in education as reported in Cetinkaya (2017): WhatsApp have potential to increase learning (Smit, 2012), learners' being active in their studies (Cifuentes & Lents, 2010), interaction between students on personal, school, and course related topics (Cifuentes & Lents, 2010; Smit, 2012), create sense of belonging (Doering, Lewis, Veletsianos, and Nichols-Besel, 2008; Sweeny, 2010), eliminate social barriers (Doering, Lewis, Veletsianos, Nichols-Besel, 2008), and increase students' motivation (Plana et al., 2013). By the help of these benefits, which are also supported by the studies conducted on WhatsApp (Bouhnik & Deshen, 2014; Church & de Oliveira, 2013; Nguyen & Fussell, 2016). It was concluded that since WhatsApp can be a useful tool within the scope of learning anytime and anywhere, and collaborative learning, it won't take a long time for WhatsApp to influence the learning environments as well as the social life.

Bataineh, Al-Hamad and Al-Jamal (2018) held that WhatsApp is a popular mobile application that is compatible with both iOS and Android operating systems, for exchanging both text and multimedia (viz. photo, video, audio) messages. It was also argued that with Internet connectivity, WhatsApp enables both synchronous and asynchronous collaboration among individual or groups of users through the following capabilities:

- (i) multimedia for exchanging text, photo, audio, and video messages with up to 256 people at once;
- (ii) document sharing for exchanging PDFs, documents, spreadsheets, and slideshows up to 100 MB;
- (iii) unlimited messaging;
- (iv) unlimited voice and video calls;
- (v) group chat of up to 50 group members;
- (vi) end-to-end encryption for secure communication;
- (vii) cross platform engagement over multiple devices (viz., web, desktop) and various media;

Alenazi (2018) investigated the extent to which pre-service teachers utilized WhatsApp Messenger to create an effective learning platform without instructor interference. Twenty-six male pre-service teachers created a WhatsApp group and interacted through it

independently for nine weeks. Each pre-service teacher was required to share a minimum of two posts on a weekly basis, for eighteen posts in total. The pre-service teachers were given clear rules for participation that included a wide range of topics and the definition of an accepted post. The frequency of posts was recorded to determine the magnitude of participation. Focus group interviews were conducted to investigate reasons behind each pre-service teacher's magnitude of participation. The results revealed that the participation rate of the entire group was unsatisfactory (57%), with only six pre-service teachers meeting the minimum required number of posts. Interestingly, these six pre-service teachers created a small but unique norm of learning environment by regulating their own and other peers' performance as well. The reasons for the magnitude of participation was traced to the instructor's presence. Instructor's presence during the participation process was opined would have helped in improving the quantity and quality of their participation. They recommended that instructor presence may include, but not be limited to, assigning a specific topic to discuss weekly, providing feedback on their answers, and managing the discussion.

## 2. Methodology

### 2.1 Research Design

The study investigated the influence of school location on secondary school teachers' acceptance of WhatsApp/Telegram for online instruction in Ondo East and Ondo West Local Government Areas of Ondo State, Nigeria. The study adopted quantitative survey research technique. The instrument used for data gathering was adapted from Tan (2013) modified UTAUT model. The instrument was a likert-type scale of Strongly Agree, agree, Disagree and Strongly Disagree. This was considered suitable for eliciting information on the teachers' acceptance of the tools for online instruction.

### 2.2 Participants

The population consisted all the secondary school teachers in Ondo East and Ondo West Local Government Areas. 229 teachers were selected across the rural and urban centres of the local government areas using multistage sampling procedure were the sample. All the secondary schools in the metropolis were stratified into rural, urban (Private) and urban

(Public) schools using disproportionate stratification. Although there are Private schools in the rural area, the teacher were very few. Therefore teachers who taught in the Private schools in the rural area were not considered in sample selection.

Ninety seven (42.4%) teachers were selected from rural schools, 47 (20.5%) teachers were from Private schools in urban centres while 85 (37.1%) of the respondents were selected from Public schools (Government owned) in the urban centres using disproportionate stratification. The teachers were selected using convenient sampling technique. Four (1.9%) of the respondents were Principals, 9 (4.2%) were Vice Principals, 25 (11.8%) were Head of Departments and 174 (76.0%) were subject teachers. Eighty nine (45.4%) were male and 107 (54.6%) were females. Eighty one (42.4%) were in Science and Technology Departments, 43 (22.5%) were in Commercial and 67 (35.1%) were in Humanities and Arts. Fifty (24.6%) of the respondents had NCE certificate, 19 (9.4%) are with Bachelor but without Education degree, 123 (60.6%) had Bachelor with Education degree, 11 (5.4%) had Master degree. Forty one (19.6%) had 0 – 6 years of experience, 25 (12.0%) had 7 – 12 years of experience, 29 (13.9%) had 13 – 18 years of experience, 68 (29.7%) had 19 – 24 years of experience and 46 (20.1%) had above 24 years of experience.

### 2.3 Data Collection Tool and Analysis Procedure

Teachers' Acceptance of Telegram/WhatsApp Based Online Classes was used for data gathering. The instrument was adapted from Tan (2013) modified UTAUT model. The instrument was a likert-type scale of Strongly Agree, agree, Disagree and Strongly Disagree. The instrument consisted two sections. Section A elicited information on the respondents' demographic profile while Section B which consisted 23 items measured the teachers' acceptance of the tools for online instructions. Section B was divided into five subsections: Performance Expectancy; Effort Expectancy; Social Influence; Attitude towards Using Technology and Usage Behaviour (Behavioural Intention). The face validity of the instrument was determined by lecturers in the department of Educational Technology and Library Studies at Obafemi Awolowo University, Ile – Ife. The lecturers examined the tenses, structure, and items in the questionnaire. Corrections were made and all the corrections were effected. A clean copy of the questionnaire was produced. Copies of the final draft of the questionnaire were given to a 5-man panel comprising of three professors in the Department

of Educational Technology and Library Studies and two Lecturers of tests and measurements in the Department of educational Foundations and Counselling at Obafemi Awolowo University, Ile – Ife. This panel conducted the content validity for the instrument. Copies of validation sheet were given to the lecturers. Lawsshe’s test was conducted and it produced a content validity ratio (CVR)  $\alpha = 1$ . Thus, the instrument was considered valid. The reliability of the instrument was determined by administering the instrument on 20 secondary school teachers in Ile Ife, Osun State, Nigeria. These teachers were not within the scope of the study Split-half method was adopted and Spearman’s correlation coefficient  $r = 0.85$  was obtained and the instrument was considered reliable. The researcher with the help of two research assistants visited the schools. Permission was sought from the management of the schools through the Principals. The consent of the respondents was sought before the administration of the copies of the questionnaire. Three hundred and twenty-three copies of the questionnaire were administered and 299 were retrieved thus the return rate was 92.0%. Strongly agree on the item was score 4, Agree was 3, Disagree was scored 2 and Strongly disagree was score 1. Item not responded to was score 0. The total score of each of the participants was determined. The total score was categorized into Low for participants that scored below 30.67. Respondents that scored 61.34 and above were categorized as High while others were categorized as Average. Mean, standard deviation, t-test and ANOVA were employed in analyzing the data. All hypotheses were tested at 0.05 level of significance.

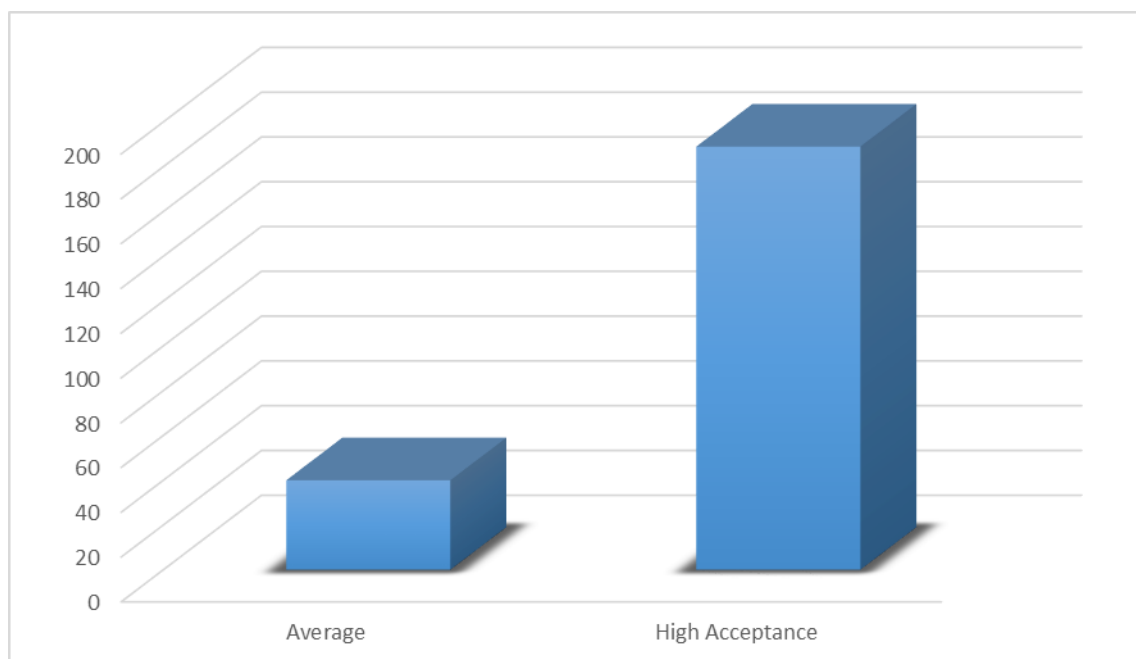
### 3. Results and Discussion

#### Research Question

What is the teachers’ level of acceptance of whatsapp/telegram for online instructions in secondary schools in Ondo Metropolis?

**Table 1: Teachers’ Level of Acceptance of Whatsapp/Telegram for Online Instructions in Secondary Schools in Ondo East and Ondo West Local Government Areas**

Level of Acceptance	Frequency	Percent
Average	40	17.5
High	189	82.5
Acceptance		



**Fig. (i) Teachers' Level of Acceptance of WhatsApp/Telegram in Secondary Schools in Ondo East and Ondo West Local Government Areas**

$H_{01}$ : school location has no significant influence on the teachers' acceptance of WhatsApp/Telegram for online instructions in secondary schools in Ondo East and Ondo West Local Government Area of Ondo State.

**Table 2: ANOVA of Influence of School Location on the Teachers' Acceptance of WhatsApp/Telegram for Online Instructions in Secondary Schools in Ondo East and Ondo West Local Government Areas**

Dependent Variable: Acceptance of WhatsApp/Telegram

Source	Type III Sum				
	of Squares	df	Mean Square	F	Sig.
Corrected Model	621.659 <sup>a</sup>	2	310.83	2.37	.10
Intercept	890174.653	1	890174.65	6790.55	.00
Location	621.659	2	310.83	2.37	.10
Error	29626.393	226	131.09		
Total	1017240.000	229			
Corrected Total	30248.052	228			

a. R Squared = .021 (Adjusted R Squared = .012)

Table 1 and Fig (i) present the frequency distributions and percentage of the teachers' level of acceptance of WhatsApp/Telegram for online instructions in secondary schools in Ondo East and Ondo West Local Government Areas. 82.5% of the respondents had high level of acceptance while the remaining 17.5% level of acceptance was average. None of the participants had low level of acceptance of the either of the tools for online instructions. Table 2 presents the Analysis of Variance of the influence of school location on the teachers' acceptance of WhatsApp/Telegram for online instructions in the secondary schools. The result showed no significant difference ( $F_{(2,226)} = 2.37$ ;  $p > 0.05$ ) and therefore the hypothesis was rejected. Finding showed that irrespective where the school is located, the teachers' acceptance of whatsapp/telegram for online instruction is very good. This is consonant with Bataineh, Al-Hamad and Al-Jamal (2018) that WhatsApp is a popular mobile application that is compatible with both iOS and Android operating systems. The above named scholars also opined that WhatsApp enables both synchronous and asynchronous collaboration among individual or groups of users. The result also agreed with Hamad (2017) that almost all study-findings supported using WhatsApp to enhance students learning and enthusiasm not even at the rural schools.

H<sub>02</sub>: sex has no significant influence on teachers' acceptance of WhatsApp/Telegram across the schools for online instructions in the metropolis.

**Table 3: t-test Comparism of the Mean Score of the Male and Female Teachers' Acceptance of Whatsapp/Telegram for Online Instructions in Secondary Schools in Ondo West and Ondo East Local Government Areas**

Sex	N	Mean	Std.		t	df	p
			Deviation				
Male	89	65.08	10.01		0.67	194	0.50
Female	107	66.18	12.47				

Table 3 presents the t-test analysis of the effect of sex on the teachers' acceptance of WhatsApp/Telegram for online instructions in the secondary schools. The mean score of the

male respondents was 65.08 while that of the females was 66.18. The analysis showed no significant difference ( $t_{194} = 0.67$ ;  $p > 0.50$ ). Therefore the hypothesis was rejected.

H<sub>03</sub>: academic qualifications has no significant influence on teachers' acceptance of WhatsApp/Telegram across the schools for online instructions in Ondo East and Ondo West Local Government Area.

**Table 4: 2-Way ANOVA of the Influence of Academic Qualifications on Teacher's Acceptance of WhatsApp/Telegram across the Schools for Online Instructions in Ondo East and Ondo West Local Government Areas.**

Dependent Variable: Acceptance of WhatsApp/Telegram

Source	Type III Sum				
	of Squares	df	Mean Square	F	Sig.
Corrected Model	1570.583 <sup>a</sup>	11	142.780	1.087	.374
Intercept	337337.465	1	337337.465	2567.498	.000
Location	330.278	2	165.139	1.257	.287
Qualification	198.992	3	66.331	.505	.679
location * Qualification	991.019	6	165.170	1.257	.279
Error	25095.033	191	131.388		
Total	908032.000	203			
Corrected Total	26665.616	202			

a. R Squared = .059 (Adjusted R Squared = .005)

Table 4: presents the 2-Way ANOVA of the influence of academic qualifications on teachers' acceptance of WhatsApp/Telegram for online instructions across the secondary schools in the Ondo East and Ondo West Local Government Areas. The results showed no significant difference ( $F_{(6,203)} = 1.26$ ;  $p > 0.05$ ). Since  $p > 0.05$ , the hypothesis which states that academic qualifications has no significant influence on teachers' acceptance of WhatsApp/Telegram across the schools for online instructions in the metropolis is therefore not rejected.

H<sub>04</sub>: years of experience has no significant influence on teachers' acceptance of WhatsApp/Telegram across the schools for online instructions in the Ondo East and Ondo West Local Government Areas.

**Table 5: 2-Way ANOVA of Influence of Years of Experience on the Teachers' Acceptance of WhatsApp/Telegram across the Schools for Online Instructions**

Dependent Variable: Acceptance of WhatsApp/Telegram

Source	Type III Sum		Mean Square	F	Sig.
	of Squares	df			
Corrected Model	2735.336 <sup>a</sup>	14	195.381	1.536	.101
Intercept	384598.201	1	384598.201	3023.494	.000
Location	576.918	2	288.459	2.268	.106
Experience	476.313	4	119.078	.936	.444
location * Experience	1547.145	8	193.393	1.520	.152
Error	24677.430	194	127.203		
Total	934388.000	209			
Corrected Total	27412.766	208			

a. R Squared = .100 (Adjusted R Squared = .035)

Table 5: presents the 2-Way ANOVA of the influence of years of experience on teachers' acceptance of WhatsApp/Telegram for online instructions across the secondary schools in the Metropolis. The results showed no significant difference ( $F_{(8,209)} = 1.52$ ;  $p > 0.05$ ). Since  $p > 0.05$ , the hypothesis which states that years of experience has no significant influence on teachers' acceptance of WhatsApp/Telegram across the schools for online instructions in the local government areas was therefore not rejected.

Demographic variables such as sex, qualifications and years of experience had no significant influence on the teachers' acceptance of WhatsApp/Telegram for online instructions. These results corroborate Centinkaya (2017) that since WhatsApp can be a useful tool within the scope of learning anytime and anywhere, and collaborative learning, it won't take a long time for WhatsApp to influence the learning environments as well as the

social life. The teachers' acceptance of WhatsApp/Telegram confirmed the readiness of WhatsApp/Telegram in influencing the learning environments for online instructions particularly in developing nation like Nigeria. The fact that WhatsApp/Telegram aided interaction between students on personal, school, and course related topics according to Cetinkaya (2017) citing Cifuentes and Lents (2010) and Smit (2012) would have in no small measure enhanced their acceptance as a result of the relative advantages possessed over all other social networking media.

H<sub>05</sub>: there is no significant relationship between attitude and teachers' acceptance of WhatsApp/Telegram for online instructions in secondary schools in Ondo East and Ondo West Local Government Areas

**Table 6: Pearson Product Moment Correlation of the relationship between attitude and teachers' acceptance of WhatsApp/Telegram for online instructions in secondary schools in Ondo East and Ondo West Local Government Areas**

		Attitude towards Using Technology	Acceptance of WhatsApp/Telegram
Attitude towards Using Technology	Pearson	1	.754**
	Correlation		
	Sig. (2-tailed)		.000
	N	229	229
Acceptance of WhatsApp/Telegram	Pearson	.754**	1
	Correlation		
	Sig. (2-tailed)	.000	
	N	229	229

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 6 presents the relationship between attitude and the teachers' acceptance of WhatsApp/Telegram for online instructions in the metropolis. The result shows a positive relationship ( $r = 0.75$ ). The attitude is positively correlated to the teachers' acceptance of WhatsApp/Telegram. This agreed with the technology acceptance of model of Davis (1989) and UTAUT model as promulgated by Venkatesh, Morris, Davis and Davis (2003). Attitude is one of the major factors that influences acceptance of technology. The right attitude of the

teachers towards the tools also contributed to its acceptance by the teachers in the metropolis irrespective of their locations.

#### 4. Conclusion and Recommendations

The study investigated the influence of school location on teachers' acceptance of WhatsApp/Telegram for online instructions in Ondo East and Ondo West Local Government Areas of Ondo State, Nigeria. The advent of Covid-19 pandemic act as catalyst to the adoption of online learning in the State. As a result of divers' opinion on the effectiveness and acceptance of the tools for online instructions, it is imperative that the acceptance of the technologies be investigated across the various school locations.

The teachers' level of acceptance of WhatsApp/Telegram for online instructions is very high. School location has no significant influence on the teachers' acceptance of the tools for online instruction and also the teachers' attitude towards Whatsapp/Telegram is positively correlated to their acceptance of the tools for instruction in online classes. Based on these study, it is recommended that workshop and seminars on how to effectively integrate Whatsapp/Telegram for online instructions should be organized for the secondary school teachers and also that necessary infrastructure and equipment that will enable the deployment of online instructions through Whatsapp/Ttelegram in secondary schools should be adequately provided for.

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