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Students' Acceptance of WhatsApp/Telegram for Online Classes: Osun State, Nigeria as a Pilot

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ABSTRACT

The COVID-19 pandemic disrupted educational and other socio-economic activities globally. This stimulated the advocacy of online classes in preparing Senior Secondary School III students in Nigeria for West Africa Senior School Certificate Examination (WASSCE). The argument for and against the adoption of the emerging technologies necessitated determination of the level as well as parental background influence on the students' acceptance of WhatsApp/Telegram for online classes. The research adopted the survey research design. The population for the study was all Federal Unity SSS III students that registered for the 2020 WASSCE in Osun State. One hundred SSS III students each from the three Federal Unity schools in the State were sampled using the accidental sampling technique. Students' Acceptance of Telegram/WhatsApp Based Online Classes, a Likert-type questionnaire was used for data gathering. Lawshe's CVR test ($\alpha = 1$) and Spearman's correlation produced ($r = 0.71$). The study concluded that the acceptance of WhatsApp/Telegram by the Federal Unity SSSIII students is slightly high and that none of the demographic variables (gender, parental background) influenced the acceptance of the technologies.

Keywords: *Acceptance*; *Covid-19; Federal Unity School; Online classes, Whatsapp/telegram.*

INTRODUCTION

The COVID-19 pandemic has caused a very great disruption to all human activities globally. The disruption which led to the lockdown of various activities across the world necessitated global changes in the way business is being transacted. Sectors that are seriously affected include education, commerce, security, and governance among others. The concept of social distancing caused a paradigm shift in human interactions and classroom activities. This favoured to a greater extent the integration of web-based and internet driven instructions to classroom activities particularly among educators in developing nations like Nigeria.

Despite the fact that the integration of ICT for instructional purposes is entrenched in the National IT Policy of Nigeria (USE IT Policy, 2006; Ministry of Communication Technology, 2012 pp. 24), institutions of learning at all levels of education prior to this period had not effectively leveraged on the opportunities provided. The advent of COVID-19 stimulated stakeholders in secondary school education in the country to advance the use of appropriate internet driven ICT platforms in preparing students for the West African Senior School Certificate Examination (WASSCE). Five credit passes in five subjects including English Language and Mathematics in WASSCE are required for students to secure admission to higher institutions of learning in Nigeria. Although there is an alternative examination body, students prefer WASSCE because it is internationally recognized.

As the lockdown persisted, agitation from students, parents, teachers, school administrators and managers made the introduction of online class activities an imperative. In a bill presented on the floor of the House of Representatives, Rep. Aniekan Umanah (PDP-Akwa Ibom) as reported in the Vanguard Newspaper (2020) noted that

> ***"****According to UNESCO, most Governments around the world have temporarily closed schools in an attempt to contain the spread of the virus; these nationwide closures are impacting over 72% of the world student population. This has brought significant setback to academic endeavours with far-reaching impacts on more vulnerable and disadvantaged countries developing world such as Nigeria".*

Rep. Aniekan Umanah further noted

> *"…the COVID-19 induced schools closure has kept over 1.2 billion children out of classrooms and as a result, education has changed dramatically, with the distinctive increase in the use of e-Learning, whereby teaching is undertaken remotely and on digital platforms. This sudden event has caused a shift from the classrooms in our Nation's schools, teachers and students have been forced to adjust and adapt to this unplanned and rapid move to online teaching and learning with no structure, training and equipment tools and are faced with inadequate preparations".*

The Honourable Minister of Education Prof. Adamu Adamu in a teleconference held with heads of tertiary institutions in Nigeria as reported by EduCeleb (2020) also said ***"****COVID-19 has changed everybody. I am pleading with you to device alternative ways. Make sure the education of our children will not stop. We have to create virtual learning environment"*

The need to explore online learning becomes necessary given the agitation and requests that stimulated the quest to look for instructional alternatives to reach out to the affected students. These students are in the exit class and the lockdown was preventing them from writing the 'all important' WASSCE.

While some parents were in full support of this development others felt e-learning or online classes were not feasible in Nigeria. The Nigeria Union of Teachers (NUT) and Academic Staff Union of University (ASUU), through their leaders, believed schools in Nigeria were not prepared enough to adopt e-learning as a form of instructional delivery. They believed school should not open and that the students should wait till the situation was suitable for the traditional face to face instruction (Olokor, 2020). Reasons advanced included, but were not limited to, insufficient facilities for effective deployment of e-learning; teachers' lack of requisite skills to engage the students in e-learning; students were not familiar with the use of e-learning in classroom instructions; and teachers were not favourably disposed to its usage.

The use of WhatsApp/Telegram became inevitable as the lockdown persisted and the students were becoming idle. The use of WhatsApp/Telegram for communication had been effective across all categories of people in Nigeria. It has been the most affordable means of information sharing among the populace. Students as well as teachers have been participating in various WhatsApp/Telegram groups for socializing and awareness creation. Issues of interest are also being discussed in the respective WhatsApp/Telegram groups. It is in the light of this that school

administrators and teachers adopted the use of WhatsApp/Telegram to provide online instruction to students.

Teachers that teach the SSSIII students were encouraged to engage the students in classroom activities through the technologies to prepare them for the West African Senior School Certificate Examination (WASSCE). Relevant text, videos, and audio were sent to the students through the platform created. Feedback was also received from the students through the platform.

The Federal Unity School in Nigeria was established in 1966 with the establishment of three Federal Government Colleges (FGCs) in Warri, Sokoto and Okposi, now in Anambra State. The main objective was to create model secondary schools within a state. There was also a need to promote values among students and schools. The unity schools are expected to foster unity among the ethnic groups in the country. Joshua, Loromeke & Olanrewaju (2014) noted that students were drawn from all the geopolitical zones of the country. These schools were to serve as model for all other secondary schools across the nation.

The SSSIII students in the schools like other students were supposed to have written their exit examination between May and June 2020. These students were unable to write the examination because of the lockdown occasioned by the COVID-19 pandemic. Various WhatsApp/Telegram groups were created by subject teachers to teach the respective subjects. The students who cut across all the geopolitical zones of the nation were taught in the comfort of their homes. Instructional materials were sent to the students and feedback which might be synchronous or asynchronous was also received from the students through the technologies. Access to both mass and individualized Instructions were also provided with the sole aim of preparing the students for the WASSCE.

In a situation like this, one application that can be used is WhatsApp/Telegram. La Hanisi, Risdiany, Dwi Utami, and Sulisworo (2018) posited that students and teachers can interact with each other online and that discussion groups on WhatsApp/Telegram allow the teacher and students to communicate effectively. Both the teacher and the students can have their discussion, send pictures, recordings and many more instructional activities which can be carried out on the platforms. According to La Hanisi et al (2018), all activities can be arranged by teachers so that students can improve their skills in English during the classroom activities.

Hammed (2019) citing Bere (2013) claimed that WhatsApp messenger has the following collaborative features:

i. **Multimedia**: It allows the user to exchange videos, text messages, images, and voice notes.
ii. **Group Chat**: It supports the interaction of up to 50 group members.
iii. **Unlimited Messaging:** The number of messages you can share on WhatsApp is unlimited.
iv. The application uses **3G/EDGE Internet data plan or Wi-Fi** to ensure continuous data transmission across platforms.
v. **Cross Platform Engagements:** Interactants with different devices (personal digital assistants, Smart phones, Galaxy tablets) can message one another through various media (text messages, pictures, videos, voice notes).
vi. **Offline Messaging:** Messages are saved automatically when the device is off or outside the coverage area.
vii. **No Charges involved:** there is no charge involved for using WhatsApp as it uses the same Internet data plan which is used for email or web browsing.

viii. **Pins and Users Name:** WhatsApp user need not to remember passwords or username as it works via phone numbers and integrates with the address books of users.

ix. There is also emerging evidence that these Apps have a **significant potential to support the learning process** and has major implications on pedagogies, allowing direct access to lots of online resources, more focus on student's creativity, autonomy, and responsibility for one's own learning.

With these and many more features, the use of WhatsApp/Telegram becomes a welcome option. While WhatsApp can accommodate up to 256 participants in a group, telegram can accommodate 200,000 participants in a group. WhatsApp and telegram are similar in operation and have similar features. Telegram and WhatsApp are affordable in a developing nation like Nigeria. Zoom and other emerging technologies are relatively expensive and are not readily available to both the teachers and the students. However, there are diverse opinions on the effectiveness of the WhatsApp/Telegram online classes for senior secondary school students' preparation for the WASSCE. The National Union of Teachers (NUT) and Academic Staff Union of University (ASUU) through their leadership believed the examination should be postponed indefinitely until the conditions were suitable enough for face to face instruction while proprietors of private schools and parents believed students' preparation through WhatsApp/Telegram should be explored.

Factors such as parental background: parents' education, occupation, economic and social status; accessibility to information technology and student's digital skills can create a digital divide among students. Considering this, students with perceived poor parental background will be disadvantaged in accessing, using and engaging in online learning activities. Therefore, the use of e-learning for classroom instruction can be jettisoned by the disadvantaged students. It is therefore pertinent to ascertain the veracity of these opinions.

The Federal Unity Schools were established to provide equal opportunity to all students across the nation irrespective of their background (Joshua, Loromeke & Olanrewaju, 2014). Students in the school are from all the geopolitical zones in the country and they were taught during the COVID-19 Pandemic lockdown through WhatsApp/Telegram. Other technologies such as Zoom, Google Plus and other learning management systems were not effectively deployed because of some challenges. This study therefore sets out to determine the students' acceptance of WhatsApp/Telegram for online instructions during the COVID-19 pandemic lockdown.

THEORETICAL FRAMEWORK / LITERATURE REVIEW

The Unified Theory of Acceptance and use of Technology (UTAUT) model discussed in Oteyola, Akande, Oyeniran and Awopetu (2020) is an offshoot of the Technology Acceptance Model (TAM) by Venkatesh, Morris, Davis and Davis (2003). It was argued by Oteyola et al (2020) that the UTAUT framework predicted users' acceptance of new technology by approximately 70%. It was also argued that UTAUT, unlike TAM and previous technology acceptance models, could only successfully predict the acceptance of an innovation with about 30% and 70% accuracy. The key advantage of UTAUT is that it demonstrates superior factor strength. It can explain up to 70% of variance of intention. It was also reported that UTAUT has the advantage of including a distinction between the moderating and the determining factors.

The Unified Theory and Acceptance of Use of Technology (UTAUT) is based on eight technology acceptance theories or models. The UTAUT draws on the Theory of Reasoned Action (TRA), the Technology Acceptance Model (TAM), the Motivational Model, the Theory of Planned Behaviour (TPB), the combined TAM and TPB, the model of Personal Computer Utilization, the Innovation Diffusion Theory, and the Social Cognitive Theory. At the core, the UTAUT model uses behavioural intention as a predictor of the technology use behavior (Oteyola et al, 2020, Tan, 2013).

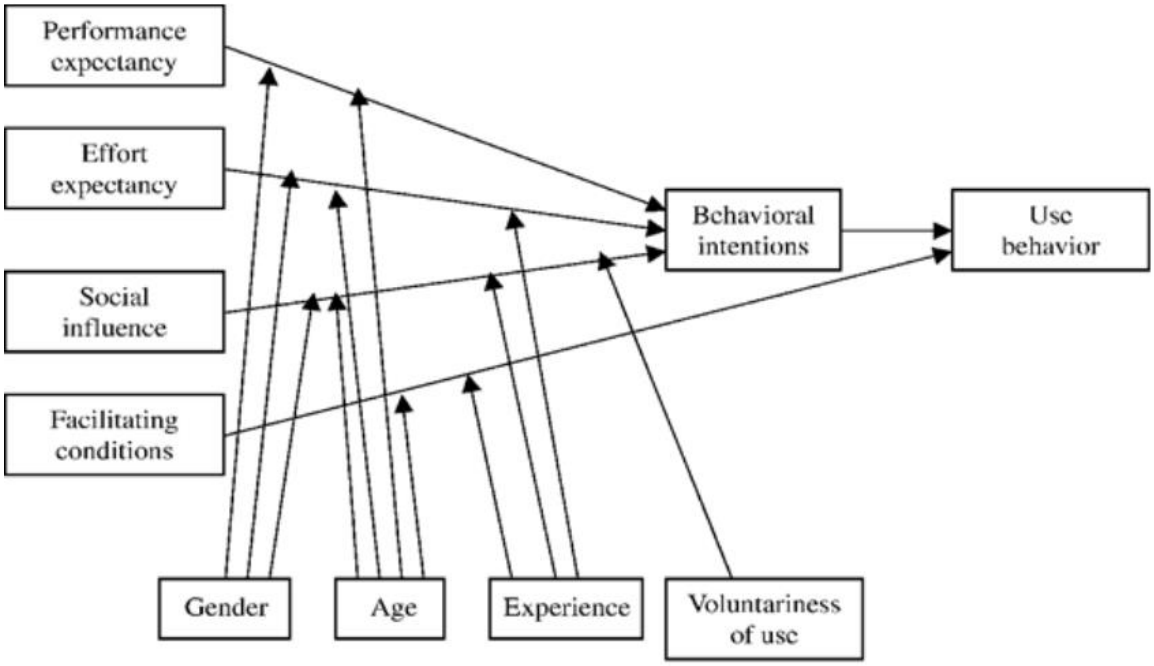

***Figure 1*:** Diagrammatic representation of the UTAUT Model (Venkatesh, Morris, Davis and Davis, 2003) cited in Oteyola et al (2020)

The UTAUT according to Venkatesh et al (2003) cited in Tan (2013) consists of four constructs which are Performance Expectancy, defined as the degree to which the individuals believe that the use of technologies will result in performance gains; Effort Expectancy, defined as the ease of use of the technology; Social Influence, defined as the extent to which the individuals believe that people that can influence their decisions on technology usage believe that they should use the technology, and Facilitating Conditions, is defined as the extent to which the organizational and technical infrastructure required for the support of the technologies exist.

The model according to Venkatesh et al (2003) also includes four moderating variables - age, gender, experience, and voluntariness of use. It was posited that in the UTAUT, performance expectancy, effort expectancy and social influence have direct effects on behavioural intention. Behavioural intention with facilitating conditions was argued has direct effects on use behaviour and hence the acceptability of the technology (Oteyola et al, 2020). The effects of interactions of performance expectancy, effort expectancy and social influence with age and gender was also established to affect technology acceptability. The interactions of experience with effort expectancy and social influence as well as interaction of voluntariness of use and social influence on behavioural intention was also established (Tan, 2013; Oteyola et al, 2020). The UTAUT model was adopted because of the degree of accuracy. The UTAUT model is being employed in the investigation into the SSSIII students' acceptance of WhatsApp/Telegram.

WhatsApp is a free multimedia and instant messaging social networking application designed for posting and swapping communications individually and collectively as a group. It could equally be hosted on any smartphone (Allagui, 2019). Bere (2012) stated that WhatsApp is an interactive platform that permits users to freely access connection (by sending and receiving photos, videos, and audio messages, text documents of different forms to a size of 100MB) to a targeted individual or multiple users in a group. Some features such as permission for multimedia postings, group

chatting in the form of collaborative, interactive sharing of information, unrestricted message delivery, cross platform engagements, offline access to posted messages without charges required, and secured management of account through pins and usernames are some of the effective features of WhatsApp (Bere, 2012).

Studies have shown that WhatsApp has the dual tendency of serving as social and educational online platforms. In their study, Bouhnik and Deshen (2014) identified four instructional functions of WhatsApp. These functions include communicating with students; encouraging social interaction; sharing content or activities among students; and providing a general learning opportunity for students. Also, Aburezeq and Ishtaiwa (2013) studied and testified to the potency of WhatsApp as an instructional platform in promoting learning by boosting student-student interaction (71%), student-content interaction (54%) and student-instructor interaction (42%). Yilmazoy, Kahraman and Baysan (2019) noted that students derived great convenience adopting WhatsApp as an educational tool.

Bere (2013) noted the promotion of students' engagement and self-confidence through active participation in an instructional WhatsApp discussion group. Further, students in a WhatsApp instructional setting experienced an increase in their level of motivation and pleasure (Plana, Escofet, Figueras, Gimeno, Appel, & Hopkins, 2013), displayed positive attitudes to learning through social interaction, and collaborative learning (Bansal & Joshi, 2014) thereby making the application of WhatsApp for educational purposes very effective.

The choice of WhatsApp/Telegram as the best and most suitable online instructional delivery platform is because of its unique features that could facilitate and accelerate instruction delivery. Features such as: ease of use, communication and interactivity that are highly structured (Moran, 2015 in Yilmazoy et al, 2019), permission of group conversations, sharing of multimedia files, and easy access to speech-conversation activities (Calvo, Arbiol & Iglesias, 2014; Souza, 2015 cited in Yilmazoy et al, 2019)). According to Moran (2013) and Lopes and Vaz, (2016) as cited in Yilmazoy et al (2019) the possibility of virtual communication between students to students, and students to teachers, with evidence to confirm information received by students and teachers (Kaieski, Grings & Fetter, 2015 cited in Yilmazoy et al, 2019)) has made WhatsApp usage for educational purposes a reality.

STATEMENT OF THE PROBLEM

The COVID-19 Pandemic lockdown in Nigeria disrupted students' preparation for the WASSCE. The use of WhatsApp/Telegram was adopted by teachers at the Federal Unity Schools in Nigeria to provide online instruction to SSSIII students for adequate preparation. The need to investigate the level of students' acceptance and determine the influence of gender and parental background on the students' acceptance of these emerging technologies for online classes necessitated the study.

OBJECTIVES OF THE STUDY

(i) investigate the Federal Unity Schools students' level of acceptance of WhatsApp/Telegram for online classes;
(ii) determine the influence of gender on students' acceptance of the emerging technologies;
(iii) determine the influence of parent's occupation on students' acceptance of the technologies;
(iv) determine the influence of parent's academic qualifications on students' acceptance of the technologies.

RESEARCH QUESTION

What is the Federal Unity Schools students' level of acceptance of WhatsApp/Telegram for online classes?

RESEARCH HYPOTHESES

H_{01}: gender has no significant influence on the students' acceptance of WhatsApp/Telegram for online classes

H_{02}: parents' occupation has no significant influence on the students' acceptance of the emerging technologies for online classes

H_{03}: parents' academic qualification has no significant influence on the students' acceptance of the technologies for online classes

METHODOLOGY

The study adopted a descriptive survey research design. The population of the study consisted of all the SSSIII students at the Federal Unity schools that registered for the WASSCE in Osun State. The sample was made up of 300 students with 100 students selected from each of the three Federal Unity schools that were in the state. The Accidental sampling technique was employed in the sample selection. The questionnaire Students' Acceptance of Telegram/WhatsApp Based Online Classes was used for data gathering. This questionnaire was adapted from Tan (2013) modified UTAUT model. Section A of the instrument gathered information on the respondents' demographic profile while Section B with 23 items elicited information on the students' acceptance of the technologies under five subheadings: 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 professionals in educational Technology and two test experts at Obafemi Awolowo University, Ile – Ife. This panel conducted the content validity of the instrument. Lawsshe's test 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 SSSIII students at Adeyemi College of Education Demonstration School, Ondo. These students were not within the scope of the study. Split-half method was adopted and Spearman's correlation coefficient $r = 0.71$ was obtained and the instrument was considered reliable.

The researcher visited the schools in the first and second weeks of school reopening after the COVID-19 pandemic lockdown for data gathering. Permission was sought through letters written to the Director/Principal of each of the three Federal Unity schools in the State. The Vice Principal Academics in each of the schools accompanied the researcher to administer the questionnaire on the students in their various classrooms. COVID-19 protocol was strictly adhered to by the researcher and students as follows: the temperature of the researcher was taken before gaining entrance to the schools; the use of face masks, social distancing, hand sanitizers, and gloves. The students sat in their classrooms with a maximum of 20 students in a class. The purpose of the study was explained to the students and their consent to participate in the research was sought. Copies of the questionnaire were distributed to the respondents in their schools. In all, 290 out of the 300 copies of the questionnaire that were administered to the respondents were retrieved. The return ratio was 96.67%. The occupation of the students' parents was classified based on

International Standard Classification of Occupations (ISCO – 08) (ILO, 2012 p.13). Strongly agree (S.A) was scored 4, Agree (A) was 3, Disagree (D) was 2 and Strongly disagree (S.D) was scored 1. Items not responded to were considered undecided and were scored 0. The overall mean score used was determined by categorizing the students' level of acceptance of the technologies into 3 (Low, Average and High). The total score on each item was 4+3+2+1 = 10. The scale was 4 (S.A. A, D and S.D.) and therefore the mean = 10/4 = 2.5 (approx. = 3). The total number of items was 23 and the maximum score obtainable = 23 x 4 = 92. The mean score interval was therefore 92/3 = 30.7 (approx. = 31). Mean, two ways analysis of variance and t-test were employed in the data analysis.

FINDINGS AND DISCUSSION

Research Question: What is the Federal Unity Schools students' level of acceptance of WhatsApp/Telegram for online classes?

Table 1 below provides data on the interval table for the students' acceptance of WhatsApp/Telegram for online classes. The interval between 0.00 and 30.67 was categorized as low level of acceptance, between 30.68 and 61.35 was categorized as average, while the interval between 61.40 and 92.00 was categorized as high. The mean score of the Federal Unity School students' acceptance of the technologies was 63.38. This value corresponds to High on the interval table.

Table 1: *Interval table for the students' acceptance of WhatsApp/Telegram*

Interval	Overall mean score image	Remark
0.00 – 30.67		Low
30.68 – 61.35		Average
61.40 – 92.00	***63.38**	High

The Bar chart in Figure 1 below shows the distribution of the students across Low, Average and High level of acceptance. 12 (4.1%) of the respondents' level of acceptance of the technologies was Low, 101 (34.8%) of the respondents' level of acceptance was Average while 177 (61.0%) of the respondents' level of acceptance was High.

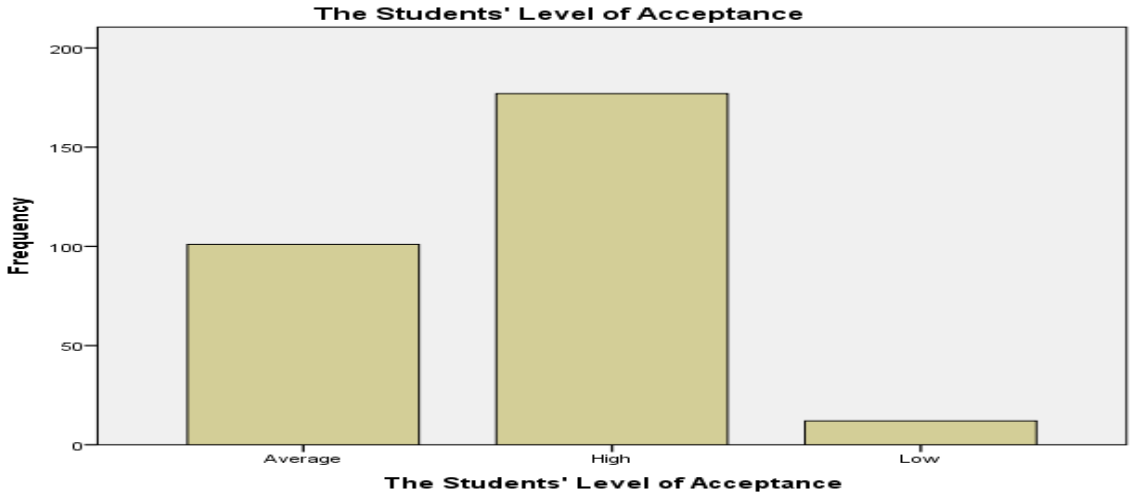

Figure 1: Bar Chart Showing the Students' Level of Acceptance

From the data shown in Table 1 and Figure 1 we can conclude that the students' level of acceptance of WhatsApp/Telegram for online classes is slightly high. This finding is supported by other studies. Yilmazoy, Kahraman and Baysan (2019) noted that students derived great convenience from adopting WhatsApp as an educational tool. Hamad (2017) while sharing experiences on students' use of WhatsApp for classroom activities also showed students' enthusiasm toward using the technology. It was reported that even after the classroom had been closed the students were still sending messages whenever they needed assistance. Barhoumi (2015) has also noted that students used WhatsApp frequently in their daily lives and therefore found the technology easy to use, and further posited that the students had attitudes that were positive and oriented toward the learning process while integrating WhatsApp into learning activities. The use of WhatsApp/Telegram for classroom instructions is therefore accepted by most of the students that participated in the study. The teachers can employ these cost effective technologies in providing blended learning experiences for the Senior School Students. This will enable the students to have access to classroom activities without the constraint of time and space, using familiar technologies that are easy to maintain.

Hypotheses:

H_{01}: gender has no significant influence on the students' acceptance of WhatsApp/Telegram for online classes

Table 2: *t-test comparison of the mean score of the male and students Federal Unity Schools acceptance of WhatsApp/Telegram for online classes*

Group	N	mean	Sd	T	Df	Remark
Male	114	62.65	15.18	0.54	281	> 0.05
Female	169	63.62	14.68			

Table 2 presents the t-test analysis of the effect of gender on the students' acceptance of the emerging technologies for online classes. The mean score of the male acceptance of the technologies was 62.65 and the mean score of the female acceptance of the technologies was 63.62. The standard deviation for the male and the female were 15.18 and 14.68 respectively. The t-test analysis shows no significant difference ($p > 0.05$). The hypothesis which states that gender has no significant influence on the students' acceptance of WhatsApp/Telegram for online classes is therefore not rejected.

When we compare the results to other studies, we noted that the study carried out by Bataineh, Al-Hamad and Al-Jamal (2018) showed significant differences in the EFL writing of male and female students, with female students having higher mean scores. This was attributed to the fact that while female students use WhatsApp for studying, their male counterparts often time use it for entertainment. The finding for both sexes accepting the use of WhatsApp is supported, however in this study, the mean score for female acceptance of the technologies is slightly higher than that of males, but the difference is not significant at 95% level of significance. We can conclude that students' acceptance of WhatsApp/Telegram is not gender dependent. Both sexes can learn effectively using these technologies.

H_{02}: parent's occupation has no significant influence on the students' acceptance of the emerging technologies for online classes

Table 3 shows the results of the two-way ANOVA conducted to examine the effect of fathers' occupation and mothers' occupation on the students' acceptance of WhatsApp/Telegram for online classes. Father's occupation was coded *occupation1* while mother's occupation was coded *occupation2.* The data showed that there was no significant interaction between the effects of father's occupation and mother's occupation on the students' acceptance of the technologies, ($F_{(22,254)} = 0.64$, $p = 0.89$).

Table 3: *Two way ANOVA of the tests of between-subject effects of fathers' and mother's occupation on the students' acceptance of the emerging technologies*

Dependent Variable:	**Acceptance**				
Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	5757.600[a]	37	155.611	.747	.854
Intercept	139061.096	1	139061.096	667.995	.000
Occupation1	1542.850	8	192.856	.926	.495
Occupation2	618.961	7	88.423	.425	.886
Occupation1 * Occupation2	2941.803	22	133.718	.642	.890
Error	45174.384	217	28.177		
Total	1095668.000	255			
Corrected Total	50931.984	254			

a. R Squared = .113 (Adjusted R Squared = -.038)

The hypothesis which states that fathers' and mothers' occupation has no significant influence on the students' acceptance of the emerging technologies for online classes is therefore not rejected. Parents' occupation has no significant influence on the students' acceptance of the technologies. The digital divide envisaged because of the occupation of the parents is either not existing or does not have significant influence on the students' acceptance of the technologies.

H_{03}: parent's academic qualification has no significant influence on the students' acceptance of the technologies for online classes

Table 4: *Two ways ANOVA of the tests of between-subject effects of parent's academic qualification on the students' acceptance of the emerging technologies*

Dependent Variable: Acceptance					
Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	5985.800[a]	27	221.696	1.124	.318
Intercept	272935.137	1	272935.137	1383.899	.000
Qualification1	765.121	5	153.024	.776	.568
Qualification2	245.397	5	49.079	.249	.940
Qualification1 * Qualification2	3099.375	17	182.316	.924	.546
Error	32936.046	167	197.222		
Total	835723.000	195			
Corrected Total	38921.846	194			

a. R Squared = .154 (Adjusted R Squared = .017)

Table 4 above shows the two-way ANOVA conducted to examine the effect of fathers' academic qualification and mothers' academic qualification on the students' acceptance of WhatsApp/Telegram for online classes. Fathers' academic qualification was coded *qualification1* while mothers' academic qualification was coded *qualification2*. The analysis showed that there was no significant interaction between the effects of fathers' academic qualification and mothers' academic qualification on the students' acceptance of the technologies, ($F_{(17,254)} = 0.92$, $p = 0.55$). The hypothesis which states that fathers' and mothers' academic qualifications has no significant influence on the students' acceptance of the emerging technologies for online classes is therefore not rejected. Parents' academic qualification does not seem to have significant influence on the Federal Unity school students' acceptance of WhatsApp/Telegram for online learning. There is no divide across parents' academic qualifications on the students' acceptance of WhatsApp/Telegram for online classes.

CONCLUSION AND RECOMMENDATIONS

The students' acceptance of WhatsApp/Telegram for online classes is slightly high. The students' performance expectancy of WhatsApp/Telegram was high. The effort expectancy of the tools was also high. The students had very good attitude towards using WhatsApp/Telegram and their behavioural intention to use the technologies was also high.

The results of our study showed that gender has no significant influence on the students' acceptance of WhatsApp/Telegram. The tools are gender friendly and there is no significant difference regarding the perception of the male and female students on the usefulness and ease of use of the tools, and they held very good attitude towards using the tools. Parents' occupation as well as academic qualification also had no significant influence on the students' acceptance of the tools. The digital divide created as a result of parental background has no significant influence on the students' acceptance of WhatsApp/Telegram. Adoption of WhatsApp/Telegram for online classes should therefore be encouraged particularly in low income communities. The possibility of adopting WhatsApp/Telegram in providing blended learning post the COVID-19 pandemic lockdown experience by stakeholders in senior secondary school educational system should be explored.

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