
Sociological inquiry: Media richness of WhatsApp as a social media platform for teaching and learning at the University of Maiduguri, NigeriaIdris Mu'azu¹, Abdulmutallib A. Abubakar², & Janet Jonathan³^{1&3}*Department of Sociology and Anthropology,
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Abstract

The work investigates WhatsApp as a social media platform for teaching and learning at the University of Maiduguri. The objectives of the study' are to determine the extent to which WhatsApp is applied as a tool for teaching and learning; to determine the effectiveness of WhatsApp on students' academic performance, and to find ways to improve the application of WhatsApp for teaching and learning at the University of Maiduguri. The study's population consists of students from University Maiduguri, where 394 students were selected as sample responders from various departments. The tools of data gathering were questionnaire. Activity and Media Richness theories guided the research as the framework of analysis since both theories suggested that WhatsApp might be an effective communication medium in teaching and learning, respectively. Findings revealed that, most respondents (students) use WhatsApp for exchange of educational material with peers. Similarly, most respondents acknowledged that utilising WhatsApp for educational purposes improves their academic performance. Further, as communication medium, sharing knowledge with course mates and asking lecturers or classmates questions through WhatsApp makes teaching and learning less cumbersome. In addition, the study found that the use of WhatsApp chat generally saves time and effort by avoiding superfluous conversation while reading via WhatsApp chats. Finally, the research suggests that school officials should inform students at orientations about the consequences of irrelevant conversations with friends on WhatsApp on academic performance. Regular, in service training for lecturers should be conducted on the optimal use of WhatsApp chats between lecturers and students for successful teaching and learning outcomes.

Keywords: Sociological inquiry, Social-media, Teaching and learning tool, WhatsApp**1. Introduction**

The use of WhatsApp chat has assimilated into modern society's way of life. The usage of information is ubiquitous. WhatsApp chat on mobile devices and desktops is one piece of technology that makes it simple and quick to share information and close the communication gap between two people and two communities. For rapid reference and conducting in-depth research between students and staff in tertiary institutions, WhatsApp chat gives the convenience and speed of using information. Using WhatsApp chat has improved service by

allowing for open communication with customers and the quick sharing of information and knowledge. Students and staff may now connect more effectively and share knowledge and information at anytime and anywhere via WhatsApp chat. Today is a digital age that affects nearly every aspect of human being and society including teaching and learning. In America, technology advancement impacts all elements of human existence in the contemporary days. The advancement of technology in the present digital age has resulted in a significant increase in the use

of social media. WhatsApp is one of the most widely used social media platforms, with practically everyone using it regularly (Khusaini, Suyudi, Winarto, & Sugiyanto, 2017). It facilitates communication between users using text, images, music, documents, and WhatsApp's unique feature, group discussions. Educators have realised the value of the WhatsApp application in the classroom. As a result, experts recommend using WhatsApp to teach pupils about the variety of fun things they can do with the messaging program (Lampe et al., 2011). In addition, social media may provide important information such as analytics and insights on various subjects or concerns for research purposes. It is critical for educational institutions to be active on a variety of social media platforms; this aids in the development of better student training tactics and moulds student culture.

In Africa, social media provides valuable audience and topic monitoring tools, and it is one of the greatest data extraction platforms. By using WhatsApp Polls to conduct a poll, one may learn how most people feel about a given issue. In addition, it may assist students in compiling and producing relevant research material. Whether students are working on an assignment, a project, or attempting to learn more about a topic, social media may provide some of the greatest information and outcomes (Cain & Policastri, 2011).

WhatsApp's popularity among youngsters enables them to send limitless messages, photographs, and videos to their friends and family members at no cost other than their existing internet data plan. After you have downloaded the app, it's really simple to use. It displays who in your contacts is using WhatsApp and also allows you to invite people who have not yet downloaded and used the apps. They may then begin communicating, exchanging audio, video, and document files and updating their status. WhatsApp does not gather personal information such as your name, gender,

residence, or age, one of its most attractive aspects.

However, in Nigeria, the interaction between students and the university may be maintained using social media platforms such as WhatsApp. Moreover, the advantages of social media in the classroom do not have to be limited to the teacher-student connection. May derived several more advantages from using social networking at a higher level. Administrators, for example, may develop a new approach to incorporate social media. Sharing school news on social media is one example of this (Levent, 2017).

In University of Maiduguri, lecturers and teachers also use social media platforms such as WhatsApp to obtain new resources for their lessons, activities to teach specific concepts, bulletin board ideas, information on new apps to follow up on specific topics, and to network and stay informed about what is going on in schools around the world (Mayer, 2013). The basic line is that WhatsApp is a social media platform that has become an integral part of our daily lives, and there is no reason to exclude it from the educational process. Furthermore, staff in schools, colleges, and universities should be encouraged to communicate with students and parents. The advantages are clear, beginning with improved parent-teacher connections and progressing to a lasting change in how pupils learn.

Students and schools may use social networking platforms to enhance their learning processes in various ways. Today, educational institutions incorporate social media platforms like WhatsApp into their systems and rely on group resources and methods to enhance student life. The use of social media in education allows students and instructors to have access to more helpful material, interact with learning groups, and access other educational systems that make studying more comfortable.

Scholars have undertaken various studies on the usage of WhatsApp in education in

this regard. Olaremu (2017), for example, performed research on the rate of WhatsApp use among Benue State Polytechnic students. Still, Zaks and Lincon (2018) studied the usage of WhatsApp among students and its influence on academic achievement. On the other hand, previous studies have focused only on WhatsApp's negative effects on education while ignoring its beneficial effects. It is a research vacuum that needs to be address; thus, the authors of this study focused on the beneficial effects of WhatsApp by evaluating the usage of WhatsApp chat as a Social Media tool for teaching and learning at tertiary institutions, utilising the University of Maiduguri as a case study. The study aimed at achieving the following objectives: determine the extent to which WhatsApp is applied as a tool for teaching and learning; determine the effectiveness of WhatsApp on students' academic performance; and find ways to improve the application of WhatsApp for teaching and learning at the University of Maiduguri.

2. Review of the Literature

WhatsApp as a Social Media Platform for Education and Learning

Social media is new entry into the media discourse. It includes WhatsApp and many other platforms such as Facebook and Twitter. According to Kaplan and Haenlein (2010), social media refers to how individuals engage in virtual communications and networks by creating, sharing, and/or exchanging information and ideas. It allows people to connect with others who have similar or shared interests, aspirations, and ambitions. A person may establish and develop solid business partnerships in any area of the globe using a social media network such as WhatsApp without ever meeting that person in person. Thanks to WhatsApp messaging, mobile communication has become simpler, quicker, and less expensive. Compared to traditional phone texting, it is less costly. Without incurring international SMS rates, a person may talk with friends and family

from across the world using WhatsApp. The availability and accessibility of learning materials at any time and in various forms can improve students' deep learning capacities. WhatsApp is being utilised in higher education to improve dialogue and information exchange between students and teachers. It was found in this study that most of the students utilises WhatsApp chat as means of learning to enable them communicate with their fellow colleagues and lecturers where necessary.

Cetinkaya and Sutcu (2018) investigated the efficacy of utilising WhatsApp Messenger as a tool for allowing mobile learning; he said that "the learning environment is taking use of the quick astounding growth in information and telecommunications technology." Most educational institutions attempt to adjust their systems to include modern technologies, with mobile technology playing an important role. Several academics have sought to demonstrate the applicability and additional techniques of mobile learning in current teaching and learning (Norman et al., 2015). Apart from conversing with friends, Olaremu (2017) claims that WhatsApp may be used to study and even learn a new language: The goal of this research was to see how beneficial it was to use WhatsApp Messenger as a mobile learning tool to help students improve their writing abilities. This research utilised a quasi-experimental approach, in which a group of fourth-year English department students took an "Essay" writing course and were divided into experimental and control groups. A pre/post-test was carried out to assess the program's success. WhatsApp was found to increase student writing abilities as a consequence of this trial. This argument sounds revealing. However, it could be perceived that WhatsApp and other social media platforms might have negatively changed the pattern of writing and social interaction both physically and virtually.

This study revealed that WhatsApp chat has come with positive and negative aspect, but it helps students and staff to improve and ease their means communication among colleagues by engaging in learning and sharing of useful materials.

WhatsApp usage in English language studies was investigated by Plana et al. (2013), who performed their research among Spanish students. The pupils said they felt more motivated and enthusiastic about reading in a foreign language. In comparison to face-to-face learning in the classroom, Levent's (2017)'s study revealed the usefulness of WhatsApp social networking. WhatsApp has evolved into a shared platform that promotes accessibility, collaboration, and cooperation among students and encourages them to participate actively in their academic endeavours (Cetinkaya & Sutcu, 2018). WhatsApp has gained popularity as a platform for instant messaging, and one of its distinctive features is its potential to improve group collaboration. WhatsApp groups have four basic purposes: interacting with students, cultivating the social climate by stimulating conversation and sharing, and serving as a learning platform.

Email, SMS, Facebook groups, Twitter, and, more recently, WhatsApp, were all used to communicate throughout the previous decade (Smit, 2012). Each of these instruments has its own set of qualities that determine how well it may use it for learning. Lan and Sie (2000) suggested employing RSS to facilitate mobile learning based on media richness theory. Bouhnik and Dshen (2014) explained how WhatsApp might improve social presence in an online course by allowing for more spontaneous, just-in-time interactions. Apart from the advantage of improving the possibility for good social presence during online learning chances, WhatsApp may not be appropriate for all learning settings, it may be time-consuming, and its 140-character restriction might promote sloppy grammar. Because of the emergence of

immediate mobile messaging apps, the traditional Short Message Service is at risk of losing its throne as the king of mobile communications. WhatsApp, for example, allows smartphone users to send free real-time text messages to individuals or groups of friends.

Students' Academic Success and the Impact of WhatsApp Chat

The study was created in a mixed research methodology, which incorporates both qualitative and quantitative data to explore the impacts of WhatsApp usage for education and determine the attitudes of students towards the process. The data were examined using two-component variance analysis for mixed measures and a quasi-experimental design with a pre-test post-test control group in the quantitative portion of the investigation. According to the findings, pupils formed favourable attitudes on the usage of WhatsApp in their classes. They required the same behaviour in all of their classes. They claimed that learning may happen automatically and that messages containing visuals were more successful in helping them learn. However, a few students have reported dissatisfaction with the timing of certain postings and the group's repeated messages. Finally, it is advised that the employment of WhatsApp as a supporting tool in the educational process be promoted.

However, studies on the use of various WhatsApp platforms in education have found that these applications have the potential to increase learning (Smit, 2012), learners' involvement in their studies (Cifuentes & Lents, 2011), student interaction on personal, school, and course-related topics (Cifuentes & Lents, 2011; Smit, 2012), create a sense of belonging (Doering, Lewis, Veletsianos, and Nichols-Besel, 2008; Sweeny 2010; Plana et al., (cen2013). These advantages, which are also corroborated by other WhatsApp research (Bouhnik & Dshen, 2014; Church & de Oliveira, 2013; Nguyen & Fussell, 2016), indicate that the program may be a

beneficial tool for learning anytime and anywhere, as well as collaborative learning. In this situation, as with Facebook, Twitter, and other social media platforms, it won't be long until WhatsApp impacts both learning settings and social life.

According to Plana et al. (2013), WhatsApp for language learning, the instant messaging software WhatsApp increases students' interest and readiness to participate in immersion programs. The realisation of learning is another important factor that influences students' willingness to implement similar strategies in their other classes. Smit (2012) claimed in his research that instant messaging systems could improve learning. Students' remarks throughout the research that learning may happen subconsciously and deliberately are noteworthy. Leonardi (2014) has suggested that learning may occur via observation of others' studies and conversations in his research on social networks. The graphics used to supplement informative texts are another component that contributes to the implementation process and is well received by pupils. Students claimed that the visuals, which were delivered together with certain instructional texts and connected to them, helped them study better. The concept that learners learn better in situations where words and visuals are combined rather than single words (Mayer, 2013) is backed by theoretical foundations (Dual coding, restricted capacity, multimedia learning, etc.) tested in many studies. The paper revealed the important of WhatsApp chat as means that assisted students to resolve their problems by pending meagre amount of data while at the end came up with positive results.

How to improve the use of WhatsApp Chat for Teaching and Learning

When there is a human aspect in virtual settings, conflicts are unavoidable, just as they are in face-to-face contact. However, problems may be minimised by correctly controlling the process and identifying potential difficulties. WhatsApp, for

example, is a social network that has begun to become a part of education in the natural flow of everyday life (Leonardi, 2014). WhatsApp, as previously mentioned by researchers, provides an unstructured learning environment and can be used as an effective educational tool (Cain & Policastri, 2011; Lampe, Wohn, Vitak, Ellison, and Wash 2011; Madge, Meek, Wellens, and Hooley, 2009; Towner & Munoz, 2011; Arteaga Sánchez et al., 2014; Norman, Nordin, Din, Ally, and Dogan, 2015). However, it is too early to tell what influence the WhatsApp program, which plays a vital role in students' everyday lives and has a social network's characteristics, will have on education. Nevertheless, the application is decided to positively influence success, and its usage is enthusiastically encouraged. WhatsApp technology can be a natural educational technology with the capabilities to contribute to education as a supporting technology, which should not be overlooked (Arteaga Sanchez et al., 2014). According to Leonardi (2014), there are several methods that instructors might enhance WhatsApp for educational purposes, including: create learning and study groups using the group chat tool; make audio lessons that may distribute to students immediately; maintain touch with pupils outside the class; and even if students are not in class, send them problems or tasks.

The study revealed that WhatsApp chat has minimise face to face interaction where both students and staff can communicate easily, share ideas, ask questions, and improve what has been taught in the classrooms during lectures/lessons. This study would help by improving the needs for students to own an android phone for easy communications via WhatsApp.

Theoretical Framework

The researcher utilised activity and Media Richness Theory. The Activity theory constructs and evaluates interactions between members of a group and finds

variables that influence their engagement in online discussions. The theory identified elements that impact students' online discussions and examines human-computer interactions (Nardi, 1996). In the area of computer and mobile technologies,

Using the Activity Theory to explain this research indicates that using WhatsApp conversation for teaching and learning offers an outlet for group learning rather than solo learning. As a result, information or knowledge may travel quicker and reach the intended recipients (students) in less time, enhancing the efficacy of teaching and learning in which knowledge is passed from one student to the next.

On the other hand, the Media Richness theory proposed that the power of information to affect knowledge within a period is media richness. If the communication framework can overcome different frames of reference or promptly clarify ambiguous issues to change, it is rich communication. Low communication is also defined as taking a long time to understand or overcome different points of view. In conclusion, richness refers to a communication's ability to learn: Draft L. Richard and Robert H. Lengel proposed the Media Richness Theory (MRT) in 1984. It is mostly used to describe and assess the efficacy of communication mediums inside an organisation. Media richness was described by Lan and Sie (2010) in terms of content timing, richness, correctness, and adaptability.

The Activity and Media Richness Theory was adopted as the theoretical framework for analysis for this research. Both theories suggested that WhatsApp might be an effective communication medium in teaching and learning, respectively.

3. Methodology

Research Area

The research was carried out at the University of Maiduguri. The university is in Maiduguri, the capital of Borno State, in Nigeria's north-eastern region. The institution was founded in 1975 as one of

the second-generation universities that were part of the Federal Military Government's Third National Development Plan (1975-1980). The university did not have its physical buildings when it was founded, but in April 1976, it acquired the previous North East College of Arts and Science facilities (NECAS). In terms of office complexes, classrooms, staff quarters, labs, and other physical structures required for an institution of its size, the facilities handed to the University by NECAS were sufficient. Moreover, the workers from NECAS were evenly integrated into the university's workforce, allowing the institution to begin academic programs in October 1976.

In its inaugural academic year, the university admitted 743 students, distributed over three faculties: Arts and Education, Science, and Social Science and Law. With the Faculty of Agriculture and the split of faculty from the Arts and the separation of the Faculty of Law from the Social Sciences, faculty had grown to six by 1978. Similarly, in 1976, a two-year School of Basic Studies program was established to absorb NECAS students, and in 1980, it was changed into a one-year remedial program for both Arts and Sciences.

The National Universities Commission of Nigeria announced in 2019 that the University of Maiduguri has an enrolment of between 29,000 and 35,000 students. On the other hand, the university's surroundings are abundant in both human and natural resources. Moreover, the area is one of the primary meeting sites of early African civilisations, both culturally and socially. As a result, the region's outstanding cultures attest to the region's rich benefits in terms of higher learning and research for researchers, students, and the general public.

The university has drawn students from both inside and beyond Nigeria due to its unusual position in the country's north-eastern region, which borders the republics of Niger, Chad, and Cameroon, as well as

its cosmopolitan atmosphere. As a result, the institution has hired teaching and non-teaching employees from Europe, Asia, the Caribbean Islands, and Africa. As a result, the number of students enrolled at the university has increased dramatically, as has the number of people employed in academic, administrative, and technical departments. By the year 2000 A.D., the number of students enrolled had increased to 26 000, and there were eight (8) faculties, including a College of Medical Sciences, Faculty of Engineering, and Faculty of Veterinary Medicine. These faculties also have a total of 77 academic departments. The university has one College of Medical Sciences, a School of Postgraduate Studies, and 11 Faculties as of 2016. Agriculture, Arts, Dentistry, Education, Engineering, Law, Management Sciences, Pharmacy, Science, Social Sciences, and Veterinary Medicine were among the faculties available. In addition, basic Medical Sciences, Basic Clinical Sciences, Environmental Studies, and Clinical Sciences were among the new faculties that have developed as of 2019 (NUC, 2019). However, the participants in this research were University of Maiduguri students from fifteenth (16) faculties owned by the university. Faculty of Education, Faculty of Engineering, Faculty of Law, Faculty of Social Sciences, Faculty of Management Sciences, Faculty of Arts, Faculty of Agriculture, Faculty of Pharmacy, Faculty of Science, Faculty of Veterinary Medicine, Faculty of Environmental Studies, Faculty of Allied Health Sciences, Faculty of Basic Medical Sciences, Faculty of Basic Clinical Sciences, Faculty of Clinical Sciences, and Faculty of Dentistry are the faculties that make up the university at the time of this study (Unimaid Academic Planning 2021) The population was used to determine the sample size for this investigation. Out of the sixteenth (16) faculties with a total number of 26, 000 students, one Department each from the sixteenth (16) faculties were chosen to give a clear picture of the study.

Animal Science, English, Private Law, Public Administration, Pharmacology, Environmental Biology, Sociology and Anthropology, Veterinary Pathology, Medicine and Surgery, Medical Laboratory Science, Radiography, Human Anatomy, Dentistry and Dental Surgery were among the twenty-five (25) students chosen using simple random sampling. except for Department of Chemical Engineering with a smaller number of students as compared to other Department in the University. Hence, only nineteenth (19) students were selected totalling three hundred and ninety-four (394) respondents using structured questionnaires. However, Yamane (1976) sample size for a given population determination formula was used to calculate the sample size for the quantitative study which involves the administration of questionnaire for the study. The formular is as follows:

$$\begin{aligned} \text{Population (n)} &= N/1+N (e)^2 \\ \text{Where n} &= \text{sample size} \\ N &= \text{total population} \\ 1 &= \text{a constant} \\ e &= \text{level of significance (0.05)} \\ N &= \text{Population size} = \\ N &= \frac{26,000}{1+26,000 (0.05)^2} \\ &= \frac{26,000}{1+26,000 (0.0025)} \\ &= \frac{26,000}{66} \\ &= 393.9 \\ &= \underline{\underline{394}} \end{aligned}$$

The Data was sources from both primary and secondary means. The data acquired were analysed using frequency count and percentage and presented in tabular form below.

4. Results and Discussion

The respondents were given three hundred and ninety-four (394) questionnaires, but four (3) questionnaires were not retrieved, while one (1) were found not usable for the analysis due to incomplete response and too

many cancellations from the side of the respondents. Therefore, the researcher utilised three hundred and ninety (390)

questionnaires that were found to be usable for the analysis.

Table 1: Socio-demographic Characteristics of the Respondents

Gender of Respondents	Frequency	Percentage
Male	286	73.3%
Female	104	26.7%
Total	390	100%

Age of Respondents	Frequency	Percentage
18 – 25	210	53.8%
26 – 35	120	30.8%
36 – 45	50	12.8%
46 and above	10	2.6%
Total	390	100%

Class level of Respondents	Frequency	Percentage
100 level	40	10.3%
200 level	120	30.8%
300 level	80	20.5%
400 level	130	33.3%
500 level	20	5.1%
Total	390	100%

Source: Field Survey, 2022

The socio-demographic characteristics of the respondents are shown in Table 1 above. There were 286 males (73.3%) and 104 females (26.7%) among the responders. The bulk of the responders were men, according to this data. Similarly, 210 (53.8%) of those polled were between the ages of 18 and 25, 120 (30.8.7%) were between the ages of 26 and 35, and 50 (12.8%) were between the ages of 36 and 45, while 10 (2.6%) were between the age

of 46 and above. This indicates that the bulk of the responders were aged 18 to 25 years old. Consequently, the study also reveals that 40 (10.3 %) of responses were from 100 level, 120 (30.8%) were from 200 level, 80 (20.5%) of the students were 300 level, while 130 (33.3%) were from 400 levels and 20 (5.1%) were from 500 level respectively. This implies that the bulk of the people that responded came from the 400 level.

Table 2: Extent to which WhatsApp Chat is used as Tool of Teaching and Learning

	Frequency	Percentage
Have you ever used WhatsApp for academic purposes?		
Yes	350	89.7%
No	40	10.3%
Total	390	100%
If yes, to what extent do you use WhatsApp for academic purposes?	Frequency	Percentage
Always	50	12.8%
Occasional	340	87.2%
Total	390	100%
Does WhatsApp chat improve learning among students?	Frequency	Percentage
Yes	340	87.2%
No	50	12.8%
Total	390	100%
If yes, do you share educational information with your classmates?	Frequency	Percentage
Yes	310	79.5%
No	80	20.5%
Total	390	100%
Does the university support WhatsApp chat as a tool for teaching and learning?	Frequency	Percentage
Yes	80	20.5%
No	30	7.7%
No idea	280	71.8%
Total	390	100%
Have you ever received educational information from your lecturers, either personally or in a group chat?	Frequency	Percentage
Yes	310	79.5%
No	80	20.5%
Total	390	100%

Source: Field Survey, 2022

The degree to which WhatsApp messaging is utilised as a teaching and learning tool is seen in Table 2. First, according to the data, most respondents, 350 (89.7%), indicated that they had used WhatsApp for academic purposes, whereas 40 (10.3%) had not. Second, the table above also implies that 50 (12.8%) of them utilised WhatsApp regularly, while 340 (87.2%) used WhatsApp for academic purposes just sometimes. Third, it also implies that most respondents, 340 (87.2%), feel that WhatsApp discussion improves students learning, whereas 50 (12.8%) disagree. Similarly, in fourth place, the majority of the respondents, 310 (79.5%), agreed that

they use WhatsApp to share educational information with their classmates, while 80 (20.5%) of the respondents don't. However, 80 (20.5%) of respondents stated that universities promote the use of WhatsApp chat as a teaching and learning tool, while 30 (7.7%) disagreed and 280 (71.8%) had no clue. Similarly, all 310 (79.5%) of the respondents feel that they had received educational information from their lecturers via WhatsApp chat as a tool for teaching and learning. In comparison, 80 (79.5%) acknowledged that they had not gotten education information from their instructors, either individually or in a group conversation via WhatsApp chat.

Table 3: Effectiveness of WhatsApp chat on students' academic success

	Frequency	Percentage
Does your academic performance improve by using WhatsApp for educational purposes?		
Yes	340	87.2%
No	50	12.8%
Total	390	100%
If yes, to what extent do you think WhatsApp chat increase your academic performance?		
I exchange educational information with my classmates	210	53.8%
I usually ask questions via WhatsApp to my lecturers or/and classmates	108	27.7%
I usually have group discussions via WhatsApp chat with my colleagues	72	18.5%
Total	390	100%
WhatsApp is the most viable social media platform that improves students' academic success if used for educational purposes. Do you agree?		
Yes	370	94.9%
No	20	5.1%
Total	390	100%
WhatsApp chat motivates students to engage in group assignments or/and other class works. Do you agree?		
Yes	365	93.6%
No	25	6.4%
Total	390	100%

Source: Field Survey, 2022

The impact of WhatsApp communication on academic progress is seen in Table 3 above. It was showed that the majority of respondents, 340 (87.2%), thought that using WhatsApp for educational purposes improved their academic performance, while 50 (12.8%) did not. The table also shows that the respondents who believed that WhatsApp chat increased their academic performance, about 210 (53.8%) of them confirmed that they exchange educational information via WhatsApp chat. Furthermore, 108 (27.7%) of the respondents use WhatsApp chat to ask questions via from their lecturers or/and classmates; and (61.1%) of them, who are the majority, confirmed that their academic performance improves because they

exchange educational information with their classmates; and ask questions via WhatsApp to their lecturers or/and classmates. While 72 (28.5%) of the respondents utilises WhatsApp chat for discussion with their colleagues.

In another response, most of the respondents, 370 (94.9%), agreed WhatsApp chat is the most viable platform that improves educational purpose in academia.

Finally, table 3 above shows that 365 (93.6%) of respondents believed that WhatsApp encourages students to participate in group assignments or other class activities, while 25 (6.4%) disagreed with that assertion.

Table 4: Ways to improve the use of WhatsApp Chat for Teaching and Learning

	Frequency	Percentage
Will you encourage the use of WhatsApp chat for teaching and learning?		
Yes	360	92.3%
No	30	7.7%
Total	390	100%
How can WhatsApp chat be improved for teaching and learning in tertiary institutions?		
Schools should be encouraged to use WhatsApp chat as a tool for teaching and learning among students	108	27.7%
Lecturers should create audio lessons that can send to students via WhatsApp chat	110	28.2%
Create a WhatsApp group to exchange educational information with students	172	44.1%
Total	390	100%
Do you think WhatsApp can be used at the University of Maiduguri as a communication tool effective for teaching and learning?		
Yes	106	27.1%
No	104	26.7%
I don't know	180	46.1%
Total	390	100%

Source: Field Survey, 2022

According to the data in the table above, most respondents support the usage of WhatsApp conversation for teaching and learning purposes. About 360 (92.3%) of the respondents agreed that they would encourage WhatsApp chat for teaching and learning in tertiary institutions, while 30 (7.7%) of respondents disagreed with that assertion.

However, 108 (27.7%) of the respondents assert that schools should be encouraged to use WhatsApp chat to teach among students. In comparison, 110 (28.2%) of respondents responded that lecturers should create audio lessons that can be send to students via WhatsApp chat and 172 (44.1%) of the respondents were on the opinion that teachers/lecturers should create WhatsApp group chat to exchange educational information to students.

Finally, the table also indicated that 106 (27.1%) of respondents opined that WhatsApp could be utilised as a successful communication medium for teaching and learning at the University of Maiduguri,

while 104 (26.7%) doubt it and 180 (46.1%) are undecided.

Discussion of findings

The bulk of the respondents were male, between ages of 18-25, and they are from 400 level, according to the data on socio-demographic characteristics of respondents.

According to the data, the majority of respondents (students) sometimes use WhatsApp for academic purposes, and it increases learning among students. This is because they pass on educational material to their peers. This contradicts Choudhury's (2021) conclusion that kids who are always involved in WhatsApp have lesser educational attentiveness. Checking their messages or skimming through their friends' conversations exacerbates the situation. This is seen to be one of WhatsApp's most detrimental consequences on kids. Another research found that most respondents did not know whether or not universities accept the usage of WhatsApp chat as a teaching and

learning tool. However, most responders (students) have received instructional material from their instructors, either directly or via group chat.

According to the research on the impact of WhatsApp conversation on students' academic achievement, the majority of respondents agreed that using WhatsApp for educational purposes improves their academic performance. This is because they share educational knowledge with their classmates, ask their lecturers or classmates questions through WhatsApp, and prevent superfluous conversation while reading via WhatsApp chats. This aligns with Khusaini et al., (2017) findings, which found that WhatsApp had a favourable impact on students' academic achievement. The majority of students in the survey who used WhatsApp for academic purposes indicates that WhatsApp usage had a beneficial influence. Other studies indicated that WhatsApp is the most feasible social media platform for improving students' academic progress when utilised for educational purposes and that WhatsApp motivates students to participate in group assignments or/and other class activities.

Finally, the data demonstrated that most respondents (students) favour the usage of WhatsApp conversation for teaching and learning. As a result, schools should be encouraged to utilise WhatsApp conversation as a teaching tool; lecturers should make audio courses delivered to students, and students should create WhatsApp groups to share educational knowledge. This supports Levent's (2017) suggestion that students should use group chats to improve learning among themselves, teachers should create audio lessons that can be sent directly to students, teachers should stay connected with students outside of the classroom, and students should be send problems or assignments even when they are not in class. However, another conclusion was that most respondents had no clue if

WhatsApp could be utilised as an effective communication medium for teaching and learning at the University of Maiduguri.

5. Conclusion and Recommendations

Despite the negative consequences of using WhatsApp conversation among students, the research found that it may have a favourable influence on academic achievement if utilised appropriately. WhatsApp has several advantages for students, including the exchange of educational material and ideas, improving reading abilities, and so on. However, despite the benefits of using WhatsApp among students, its overuse may lead to addiction, which can negatively damage a student's academic life and their performance.

Recommendations

It is recommended that:

1. During student orientations, school authorities should warn students about the hazards of texting with friends on WhatsApp. They should put it to better use in the classroom.
2. Regular in-service training for lecturers at tertiary institutions on how to effectively use WhatsApp discussions between lecturers and students for good teaching and learning outcomes should be arranged regularly.
3. The government should fund the re-training of university instructors on using ICT equipment since this would lead to their accessing appropriate academic WhatsApp sites to supplement classroom teaching.
4. The government should investigate the potential of developing a policy for teens in WhatsApp services that varies according to the student's age and educational level.
5. Instead of spending their time conversing with pals on WhatsApp, students who do not utilize it for scholastic objectives should be encouraged to visit school libraries.

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