



# Assessment of WhatsApp as a Collaborative Learning Tool in the post COVID-19 Era in Higher Learning Institutions: A Case of Tanzania

Mutajwaa Alphonse Shuubi and Kivara Minael Reuben  
Centre for Information and Communication Technology  
St John's University of Tanzania  
Email: [salphonse@sjut.ac.tz](mailto:salphonse@sjut.ac.tz), [rminael@sjut.ac.tz](mailto:rminael@sjut.ac.tz)

**Abstract:** Information Technology has changed our societies in a variety of ways, before COVID-19 and after COVID-19. A mobile phone being one of the devices under technological generation is needed in teaching and learning. In higher learning institutions, a great number of students make mobile phones part of useful tools for learning. This study aimed to assess WhatsApp as a collaborative learning tool in Higher Learning Institutions a case in Tanzania. The study used a multi-case method where students from three different Higher Learning Institutions were used as units of inquiry. These students came from different levels and programmes, the institutions were from one private institution and two public institutions. The tool used to collect data was an online form created by google. Data collected was then analysed and processed through the google form and the responses were shown with charts and graphs from google. The study included students from non-degree (certificate and diploma) and undergraduate students from bachelor's degree. The results indicated that WhatsApp is one of the most favored mobile based applications, especially in HLIs; students use the WhatsApp application in exchanging learning materials with their fellow students and their instructors. Not only that, but the application is also used for opening new collaboration and links with other students from different colleges and universities. Nevertheless, the results showed that some students in higher learning institutions in Tanzania use WhatsApp as a platform to learn new business ideas hence some open businesses while still students at College or University through this platform. The current study recommends that Higher learning institution should have conducive environment for learners to get free internet services throughout in the University compound at the same time having a policy that show rules and regulations to be followed on ways to use the WhatsApp tool.

**Keywords:** Collaborative Learning, WhatsApp, HLI, Tool, Tanzania

## How to cite this work (APA):

Mutajwaa, A. S. & Kivara, M. R. (2023). Assessment of WhatsApp as a Collaborative Learning Tool in the post COVID-19 Era in Higher Learning Institutions: A Case of Tanzania. *Journal of Research Innovation and Implications in Education*, 7(2), 287 – 299. <https://doi.org/10.59765/b7ds7910>.

## 1. Introduction

In this globalization era, education in one way or another must use or apply Information Technology. In addition, with the current COVID-19 pandemic, it is not easy to rely only on traditional ways of teaching. Educators and whosoever is involved in teaching should think outside the box on different ways of ensuring they deliver the required materials to students. The closure of businesses,

schools and colleges during COVID-19 outbreak late 2019 and in 2020 in other countries caused a shift in the way people communicate, hence creating new ways of communication. A lot moved online and going online means Information technology has to be applied. This forces HLIs to adapt quickly, to stabilize the ongoing situation. In Tanzania, several Higher Learning Institutions were affected by the COVID-19 pandemic, as most of them in greater percentage were still using

traditional way of teaching. Blended learning was then applied in mixing traditional way (face to face) of teaching and online learning. As technology advances, the use of social media is changing from only chatting with friends, family and people who are far away, but social media has been used as a platform for collaborative learning. Social media can be defined as forms of media that allow people to communicate and share the information using the internet or mobile phone (Aman & Hussaain 2018). This is a platform for people to communicate and share different things such as ideas, videos and photos to keep in touch with other people.

In (2012) The Education Center for Applied Research (ECAR) did a survey of how students in HLIs use information technology. The results of the survey showed that roughly 67% of the students who were involved in the survey accepted that mobile computing devices (cellphones, smartphones and tablet) and social media play a vital role in their academic performance. (Gikas & Grant, 2013) indicated that mobile devices and social media contribute in providing educational e-learning opportunities to the students for academic collaboration and accessing in course contents. According to Cornell University, cited in Johansson (2016:4) “when students join together in learning, for instance in discussion settings that provide groups solving tasks or contents, they are part of a collaborative learning environment”. Collaborative learning could inspire participants and evoke their interest as well (Njoku & Prince, 2015; Yin, 2016).

Among the social media is WhatsApp tool that is widely used by different people to support their daily activities (Susilo & Sofiarini, 2021). WhatsApp tool can facilitate communication at the education level by providing a channel through which teachers can achieve faster and more seamless communication with their students. It can also increase the level of communication. As of January 2017, WhatsApp was rated as the most popular messaging application in the world (statista.com). It is an Instant Messenger technology such as SMS with internet data assistance with more attractive supporting features (Kongchan, 2018; Kurniawati, Maolida, & Anjaniputra, 2018). This mobile application works across different operating devices like Ios, Android, Windows and Java (Alsaleem, 2016). The use of WhatsApp has increased in recent years; the application has the potential to be used as a learning tool. In WhatsApp there are different features that support the user to collaborate with other users. There is WhatsApp group which can facilitate more than fifty (50) students at once, a virtual classroom can be created using WhatsApp group. WhatsApp groups have pedagogical, social and technological benefits. This application provides support in the implementation of collaborative learning. The WhatsApp group allows its

users to deliver certain announcements, share ideas and learning resources and support online discussions (Amry, 2014).

To meet the demands in increasing number of students in Higher Learning Institutions in Tanzania, together with the COVID-19 pandemic, innovation in learning was to be considered immediately, a number of HLIs had to update themselves in the way of delivering their materials. The study conducted by (Susilawati & Supriyatno, 2020) indicated the increase of learning, motivation, occurrence of study groups which is the result of the use of WhatsApp application hence increase learners' knowledge and confidence.

Previous studies in Tanzania (Masele & Rwehikiza, 2021) show that social media, WhatsApp being one of them has been used in promoting upcoming and past events, university life and publishing new programmes.

While the use of WhatsApp in Higher Learning Institution in Tanzania has been mentioned in some studies, also as the number of WhatsApp users increase, it is yet not clear to what extent it is used as a collaborative learning tool. The current study was carried out in three higher learning institutions in Tanzania (one private and two public). The main objective of the study was to assess to what extent WhatsApp is used as a collaborative learning tool in the post COVID-19 era in higher learning institutions.

## 2. Literature Review

The teaching and learning system is among of the industries affected by the global spread of COVID-19 virus (Mwakyusa & Ng'webeya, 2022). In higher learning institutions the effect has been seen even in post COVID-19 era as a number of higher learning institutions have complement traditional learning systems with online teaching (blended learning). Furthermore, with the increased use of smartphone and internet all over the world, it is no doubt that learning and business in post COVID -19 era will not be the same compared to during the COVID-19 pandemic and before the pandemic (Rooks, E.A., Nayiga, J., Rousslang, L.K. et al (2023). At the same time, the use of internet, social media and networking platform like WhatsApp come up with distinctive opportunities to enlarge access to educational materials.

The advancement in technology in terms of how people interact and communicate before, during and post COVID-19 era has promoted collaborative and cooperative learning. Social media and networking has

lessen the distance that take place in communication where people had solely depended on traditional methods like telephone calls and letters as a communication mode of getting in touch with people (Henry L. Mambo,er al 2022). WhatsApp tool has come out as a quicker way of sending instant messages and videos across the country. This aspect has resulted in WhatsApp being used much in Higher learning Institution as a collaborative learning tool, this is due to the fact that, majority of students in higher learning use smart phone for communication and for learning. In addition to that a big number of youths are smartphone owners who are mostly found in higher learning institutions.

Since, the WhatsApp tool being among the tool that is freely available to use, it has transformed communication to be a two-sided conversation, which is vital to students in learning environment especially students in Higher Learning Institutions.

Two-sided conversation is advantageous to students in terms of ideas exchange and discussion but also knowledge exchange with their instructors and academic advisors. At the same time, the post COVID-19 era has seen WhatsApp becoming a reliable tool for initiating creative learning to students as it gives them chances of being independent and hence offers them room to be innovative. Teaching and learning are no longer limited in the classrooms and lecture theatres only but can also be outside four walls. With reference to Tanzania, the statistics showed that 13.8% of internet users were involved in social media networks (Pfeiffer et al., 2014). Awake (2011) revealed that nowadays many Tanzanian teenagers spend most of their time online using smartphones, computers and other devices like tablets and iPods, browsing social media networking sites. And in recent years, the mobile communication rate in Tanzania has increased by 21% in 2019, while internet users increased to 29,071,817 in March 2021(TCRA).

### 3. Methodology

The study used a multi-case study where students from different programmes in higher learning institutions in selected institutions were used as units of inquiry in the case method (Yin, 2013).

The research was conducted in three (3) Higher Learning Institutions in Tanzania, where one (1) was private

institution and two (2) were public institutions. Data was collected through softcopy questionnaire shared via a google form link. The study participants were students pursuing studies to the level of certificate, diploma and degree students. A total number of one hundred seventy-two (172) students from three institutions; one (1) University (St John's University of Tanzania (SJUT) private) and two (2) public institutions (Local Government Training Institute (LGTI) and Institute of Regional and Development Planning (IRDP) participated on this study. Few selected students were involved in in-depth interviews; these were class representatives and faculty or school representatives. These representatives were purposely selected as most of them happened to be WhatsApp groups administrators. There was a guide prepared to facilitate the in-depth interview in line with the objectives of the study. First, the guide facilitated getting information about background on the use of WhatsApp in the institution and second on whether the participants found WhatsApp as a useful collaborative learning tool. The study was conducted in the academic year 2021/2022 semester one.

Students were asked whether they owned a computer, laptop, tablet, or a smartphone. Then, participants had to explain if they had ever used WhatsApp application or not, and how often they used the application. Moreover, participants were asked to spell out what they primarily used WhatsApp for, and a number of contacts they had in WhatsApp, and how frequently they communicated. In addition to that, students were asked whether they were connected to how many WhatsApp groups and are those WhatsApp groups for academic purpose or not, and if there is any group that they communicated with their instructors for subject clarifications.

Among the question was in 5-point likert format (Nikčević & Spada 2020) where participants were asked how they evaluated themselves on the use of WhatsApp, with the category of choice, Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree.

### 4. Results and Discussion

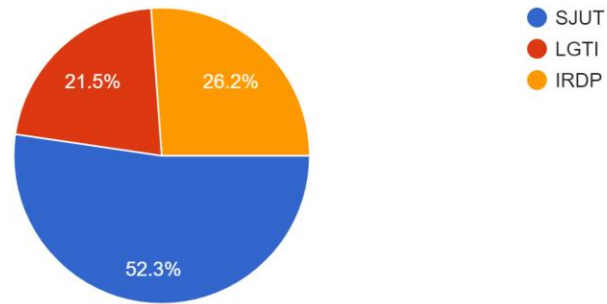
The COVID-19 pandemic, during the pandemic and after the pandemic has changed the way people interact. In higher learning institutions for instance, the impact was seen especially in the way students share their materials with their fellow students but also on how they interact

with their instructors. From the results of the current study, it shows that the use of WhatsApp tool has increased in Higher learning institution. During the COVID-19 pandemic mobile devices were used for

communication so as WhatsApp tool, after COVID or post COVID-19 mobile devices and WhatsApp tool has been used more especially in Higher learning institution.

Your institution

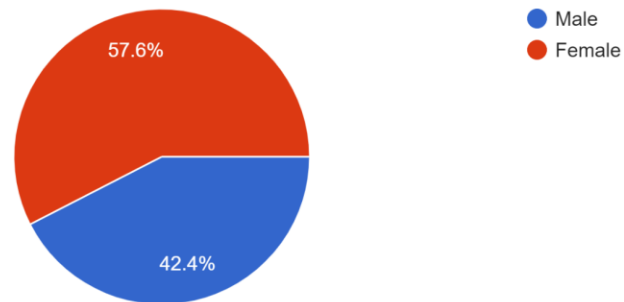
172 responses



**Figure 1: Participants per Institution**

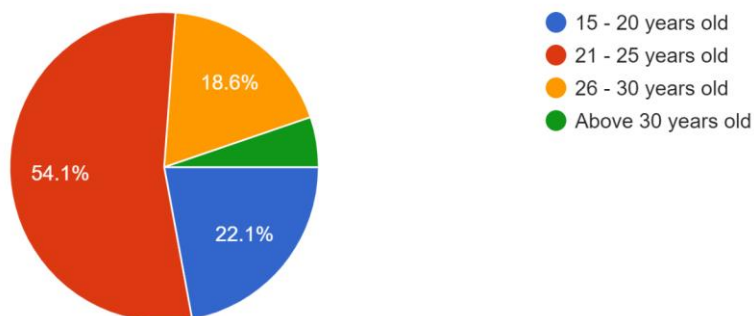
Your Gender

172 responses



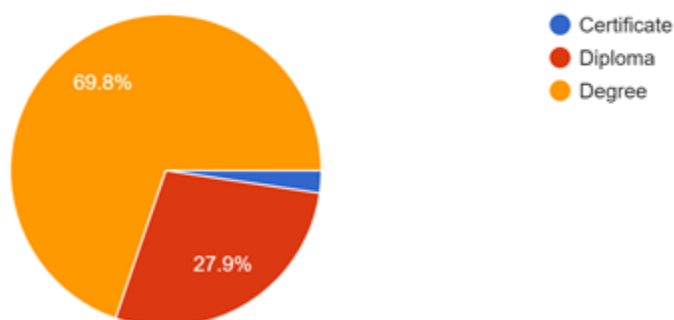
**Figure 2: Demographic Results**

Your age  
172 responses



**Figure 3: Age**

At what level?  
172 responses



**Figure 4: Level of Study**

From the results it was found out that WhatsApp is highly used in higher learning institutions in Tanzania in the post COVID-19 era. Many students in higher learning institutions in Tanzania owned smart phone and had downloaded the WhatsApp application. Furthermore, it was found out that over fifty percent (50%) of students who participated in the study used WhatsApp everyday and very few of students possessed laptops.

One student revealed during an interview “I once missed a seminar where there was a change of normal time for the seminar, as indicated on a main timetable, the

message was updated on Class WhatsApp group, I was not on Campus hence, couldn’t meet with anyone to give me the updates of the changes, and didn’t read messages on WhatsApp”.The study found out that eighty point two percent (80.2%) of the student use WhatsApp primarily for learning and chatting, and some of them use as a tool for marketing their businesses.

During the interview, another student was heard saying “WhatsApp has been a good business tool for me, I sell shoes for men and handbags for women, so I use my WhatsApp contacts and groups to share my business

items on my status so all my contacts can see”. Another student shared about how her business has expanded “I used to sell baobab fruits and honey in my institution,

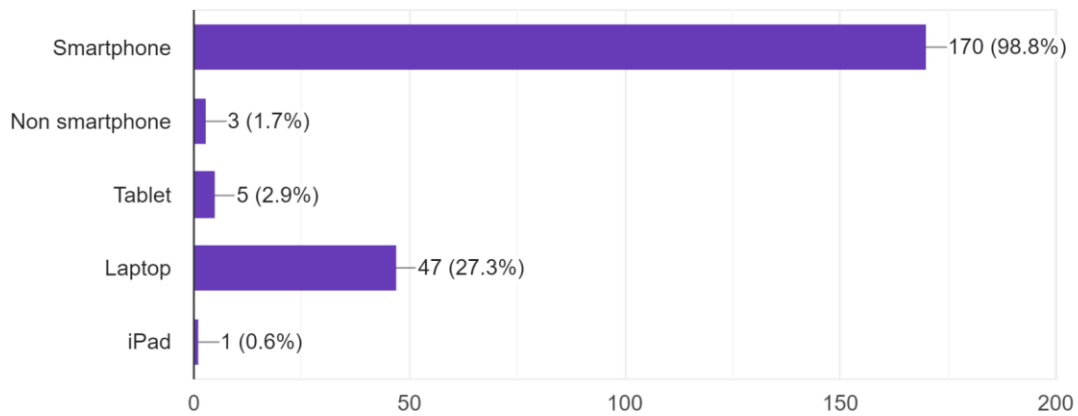
after owning a smartphone which is one of my tool for learning I now use WhatsApp to advertise my business to students of other institution

Table 1: Possession of mobile gadgets

“.

I possess my own .....

172 responses



Have you ever used WhatsApp?

172 responses

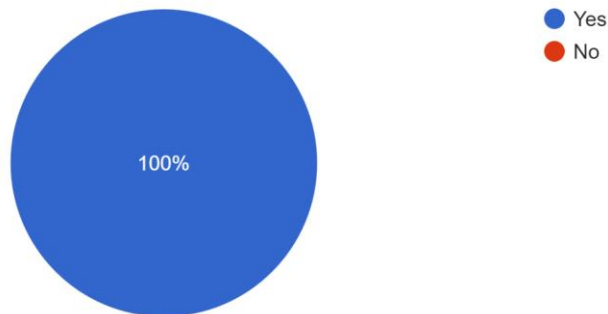
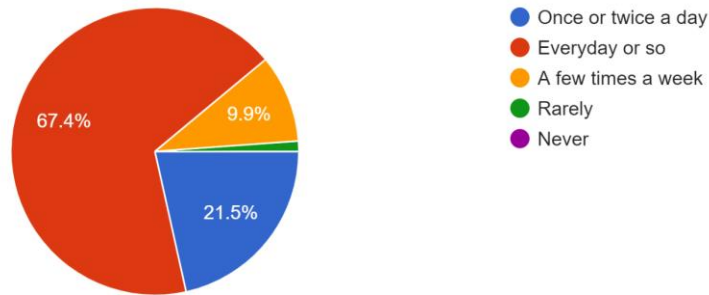


Figure 5: Usage of WhatsApp

How often do you use WhatsApp?

172 responses



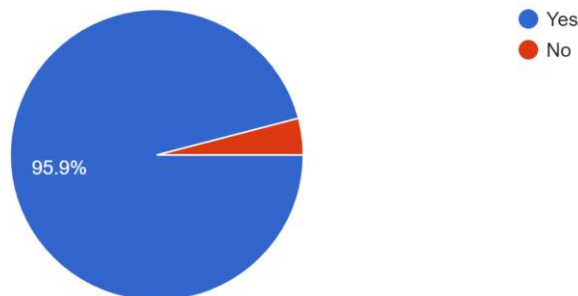
**Figure 6: Frequency of using WhatsApp**

“I am not addicted to WhatsApp, though I must say, before I go to bed, I normally check my WhatsApp groups just to update myself with anything that I have missed during the day.” Astudent was heard making a

point during interview. The findings of this study show that 95% and 69.2% of the respondents check WhatsApp before going to bed and when they wake up in the morning before doing anything respectively.

Do you check your WhatsApp before going to bed?

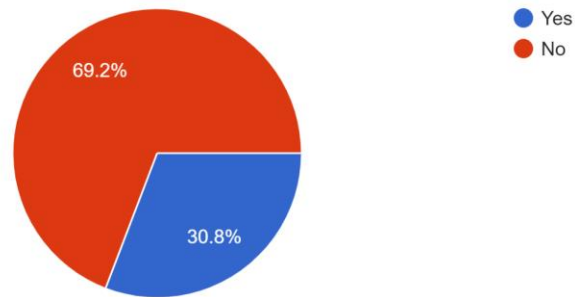
172 responses



**Figure 7: Frequency in checking WhatsApp**

When you wake up in the morning do you check WhatsApp before doing anything?

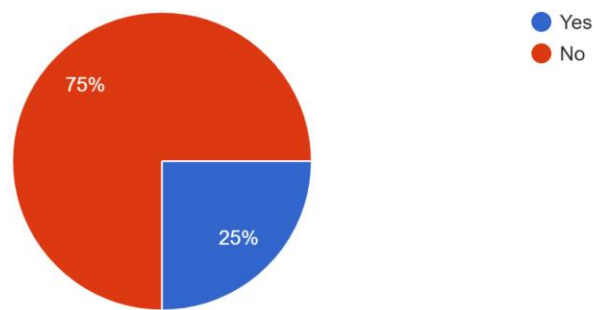
172 responses



**Figure 8: Checking WhatsApp**

Do you consider yourself addicted to WhatsApp?

172 responses



**Figure 9: Whether addicted to WhatsApp or not**

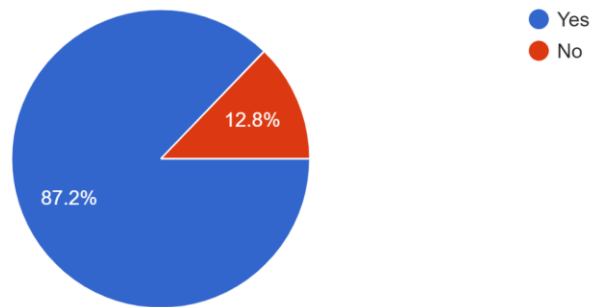
Another student presented during an interview that “We have one lecturer who sends practice questions on WhatsApp regularly, and sometimes share links for extra

materials on particular topics, if you miss checking your WhatsApp a day you miss a lot”



Do you have WhatsApp groups connected with any of your instructors?

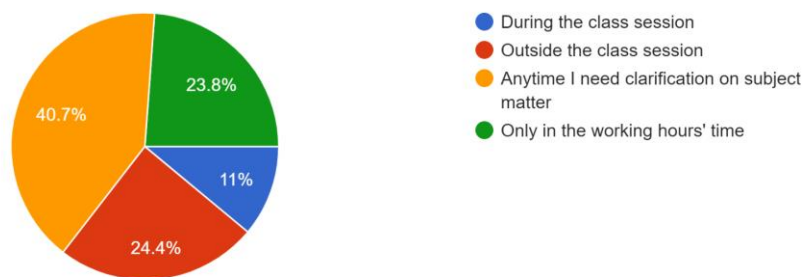
172 responses



**Figure 10: Connected to WhatsApp Groups**

How often do you interact with your instructor for subject clarification using WhatsApp?

172 responses



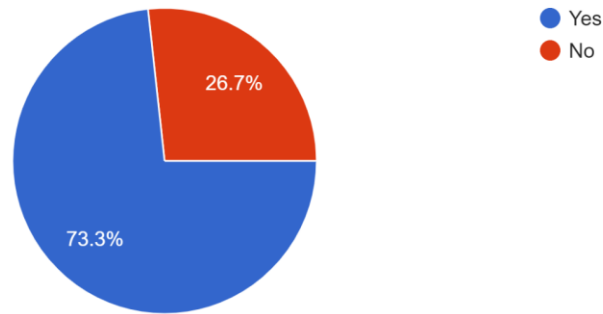
**Figure 11: Using WhatsApp for clarifications on subject matter**

A greater number of students pointed out that they do have links and collaboration with students from other institutions as shown in the chart below. Participants of the current study mentioned that these links have helped them in exchanging ideas, views of different things. Sharing of materials, including notes, past papers were

raised in high percentage. In some point, students mentioned that collaborating with students from other institutions have helped them not only academically but also socially in participating in sports and other activities that are not necessarily academic.

Do you have any link or collaboration with students of other institutions through WhatsApp?

172 responses



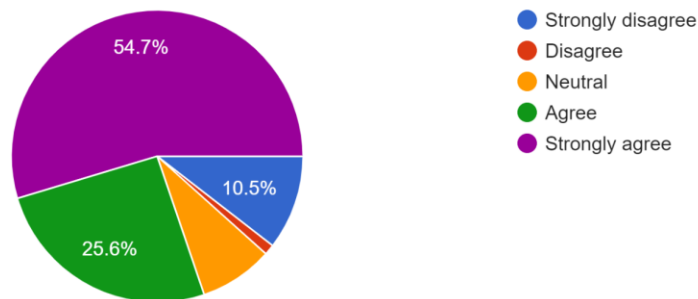
**Figure 12: Link with other students from other institutions**

Substantially, more than fifty percent (50%) of students who participated in the study strongly agree that WhatsApp is a good tool for quick delivery of lecture

materials, informing students about lecture activities and for group discussions.

WhatsApp is a good tool for quick delivery of lecture materials, informed lecture activities and schedule group discussions.

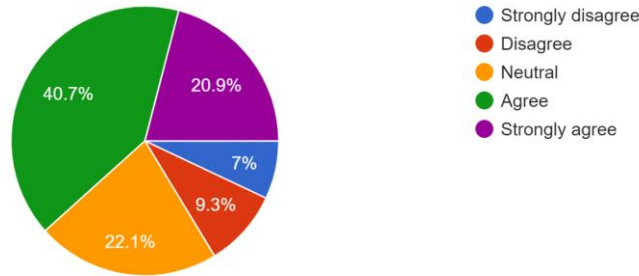
172 responses



**Figure 13: WhatsApp good for quick information delivery**

Moreover, the results from the study showed that forty percent (40%) of the students agreed that WhatsApp increases interest in learning.

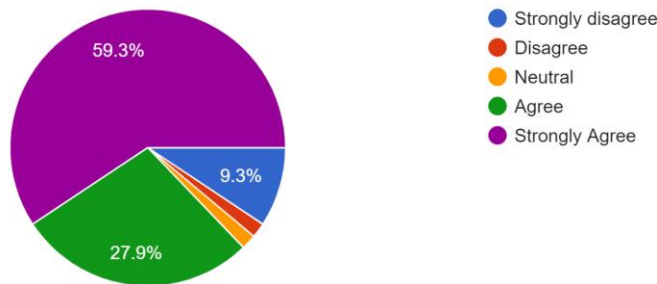
WhatsApp increase the interest of learning the course for students  
172 responses



**Figure 14: Increase interest of learning the course**

Students note that WhatsApp application helps them to share academic materials between themselves and their instructors.

WhatsApp helps to easy sharing of academic information between learners and instructors.  
172 responses



**Figure 15: Easy sharing of academic information**

## 5. Conclusion and Recommendations

### 5.1 Conclusion

The outbreak of Corona virus in the world has changed several things including the way education is delivered. In the Post COVID -19 era, specifically Tanzania, it has shown that some institutions in Tanzania do not depend anymore only on traditional way of teaching and learning. The COVID-19 pandemic as previously stated has affected HLIs all over the world including Tanzania not only to quickly adapt new ways of delivering education but also not to rely only on traditional (face-to-face) way of learning. Students cannot only learn in four walls but also even outside class, anytime and anywhere.

Previously, WhatsApp tool has been used mainly for chatting and communicating with people who are far from each other, but due to COVID-19, the WhatsApp tool has been used more as a collaborative learning tool. The current study found that, a big number of students in HLI's in Tanzania own smartphone, and most of these phones do have WhatsApp application. Students prefer to use WhatsApp for quick exchanging of academic materials, discussion, academic activities announcement and sharing other social activities. The Application has not only been used to communicate with fellow students but opening links and collaboration with students from other institutions and sharing different academic materials, exchanging experiences by learning from each other as well as collaborating in social activities.

The current study has shown that WhatsApp is more than just a platform for chatting, but rather can facilitate in improving someone's academic level. In addition to that students in HLI's in Tanzania have used the tool as an opportunity to do business with their fellow students. This opportunity of sending and receiving lecture notes, other academic materials, quick delivery of academic announcements, doing business, to name a few, should be properly monitored to ensure the main goal of learning is maintained. Technology growth and uncertainty of pandemic like COVID-19, have challenged HLI's to ensure quality of education is not affected. It is about time, WhatsApp be accepted by HLI's in Tanzania as a key tool in learning, not just a chatting tool which sometimes can be used for learning and exchanging academic materials, but rather a tool that is useful in teaching and learning.

## 5.2 Recommendations

It has been observed in this study that the WhatsApp tool plays a big role in education processes the fact that learners and instructors share academic related matters through it. The institutions are advised to create some convenient environments for learners to get free internet service throughout in the institution compounds by providing the free wireless service to favor those unable to buy data bundles for their smartphones. Therefore, there is a need to have policy which will show rules and regulations if possible that guide students and their instructors on proper ways to use the WhatsApp tool and still maintaining good environment for teaching and learning processes.

## References

- Alsaleem, B.I.A. (2014) "The Effect of Whatsapp Electronic Dialogue Journaling on Improving Writing Vocabulary Word Choice and Voice of EFL Undergraduate Saudi Students". *Arab World English Journal*, 4 (3), 213-225. [www.awej.org/index.php](http://www.awej.org/index.php)
- Alsen, F. Kapinga, & Augustino S. Mbunda (2021), Mobile Technology Usage for Enhancing Teaching and Learning at College of Business Education, Tanzania: An Exploratory Study. *Business Education Journal (BEJ)*, Volume 10, Issue II, [www.cbe.ac.tz/bej](http://www.cbe.ac.tz/bej)
- Aman, K., & Hussin, N. (2018). The Effectiveness of Social Media Marketing in Higher Education Institution. *International Journal of Academic Research in Business and Social Sciences*, 8(9), 827-834. <https://doi.org/10.6007/ijarbss/v8-i9/4657>
- Authority TCR. *Quartely Communications Statistics: Tanzania Communications Regulatory Authority*. 2021. Available online: [https://www.tcra.go.tz/uploads/texteditor/files/TelCom%20Statistics%20June%202021\\_1630483653.pdf](https://www.tcra.go.tz/uploads/texteditor/files/TelCom%20Statistics%20June%202021_1630483653.pdf) (accessed on 20 June 2021).
- Bruguera, C., Guitert, M., & Romeu, T. (2019). Social media and professional development: A systematic review. *Research in Learning Technology*, 27, 1-18. <https://doi.org/10.25304/rlt.v27.2286>
- Chan, A.K., Nickson, C.P., Rudolph, J.W., Lee, A. and Joynt, G.M. (2020) social media for Rapid Knowledge Dissemination: Early Experience from the COVID-19 Pandemic. *Anaesthesia*, 75, 1579-1582. <https://doi.org/10.1111/anae.15057>
- Constantinides, E., & Stagno, M. C. Z. 2011. "Potential of the social media as instruments of higher education marketing: a segmentation study." *Journal of Marketing for Higher Education*, vol. 21, no.1, pp. 7-24.
- Jimmy E. Kihwele & F. Mgata (2022) Mathematics Teachers "Use of WhatsApp Groups as a Platform for Continuous Professional Development in Tanzania. *African Journal of Teacher Education*. [journal.lib.uoguelph.ca](http://journal.lib.uoguelph.ca)
- Lynn G. Jiang, Peter W. Greenwald, Michael J. Alfonso, Jane T. Lavoro, Manish G., Ally M. Akrabi, Erasto S. Shahzadah S. and Radhika S. (2021). An International Virtual Classroom. The Emergency Department Experience at Weill Cornell Medicine and Weill Bigando Medical Center in Tanzania. *Global Health: Science and Practice*, 9(3) :690-697
- Masele, J.J., Rwehikiza, D.P. 2021. Application of Social Media in HLIs International Journal of Education and Development using Information and Communication Technology (IJEDICT), 2021, Vol. 17, Issue 2, pp. 37-54

- Mahyoob, M. (2020). Challenges of e-Learning during the COVID-19 Pandemic Experienced by EFL Learners. *Arab World English Journal*, 11 (4) 351-362. DOI: <https://dx.doi.org/10.24093/awej/vol11no4.23>.
- Mistar, I., &Embi, M. A. (2016). Students' Perception on the Use of Whatsapp As a Learning Tool in ESL Classroom. *Journal of Education and Social Sciences*, 4, 96–104.
- Mwakyusa, W. P. and Ng`webeya, L. M. (2022). The Response of Tanzania Higher Learning Institutions to e- Learning during COVID-19 Pandemic. *East African Journal of Education and Social Sciences* 3(1), 19-28.
- Nik`cevi`c, A.V., Spada, M.M., 2020. The COVID-19 anxiety syndrome scale: development and psychometric properties. *Psychiatry Res.* 292, 113322
- Pfeiffer, C., Kleeb, M., Mbelwa, A., & Ahorlu, C. (2014). The use of social media among adolescents in Dar es Salaam and Mtwara, Tanzania. *Reproductive Health Matters*, 22(43), 178-186. [https://doi.org/10.1016/S0968-8080\(14\)43756-X](https://doi.org/10.1016/S0968-8080(14)43756-X)
- Rooks, E.A., Nayiga, J., Rousslang, L.K. et al. A pilot program evaluating WhatsApp as an interactive educational tool for pediatric radiology in Eastern Africa. *Pediatr Radiol* (2023). <https://doi.org/10.1007/s00247-023-05658-x>
- Statista. (2017). Most Popular Mobile Messaging Apps Worldwide as of January 2017, Based on Number of Monthly Active Users (In Millions). <https://www.statista.com>
- Susilawati, S., &Supriyatno, T. (2020). Online Learning Through WhatsApp Group in Improving Learning Motivation in the Era and Post Pandemic COVID -, 852–859.
- Thoma, B. M., Huang, S., Milne, W., Martin, L., & Bond, C. et al. (2018) The Impact of Social Media Promotion with Infographics and Podcasts on Research Dissemination and Readership. *Canadian Journal of Emergency Medicine*, 20, 300-306
- Yin, R. K. 2013. "Case Study Research: Design and Methods. Essential guide to qualitative methods in organizational research" (5th ed.,) vol. 5. London: Sage Publications. <http://doi.org/10.1097/FCH.0b013e31822dda9e>.
- Yin, L. C. (2016). Adoption of WhatsApp instant messaging among students in Ipoh Higher Education Institutions.