

The Use of WhatsApp Messaging by Teachers of Medical Education as a Communication Tool at the Catholic University of Cuenca

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Abstract

Technological progress in electronic devices and their applications have appeared in various areas, and instant messaging is used in the daily life of each person with a smart phone. This study focused on using WhatsApp by teachers at the Catholic University of Cuenca (UCACUE). The purpose of this study was to understand how much teachers use WhatsApp and, secondly, to find out how useful this tool is for their academic activities. It was a quantitative study that took innovative arguments in everyday life, WhatsApp and its use among higher education teachers. This study conducted a survey with a sample of 63 professors from the Catholic University of Cuenca from the faculties of Medicine, Biopharmacy and Nursing. The results obtained show intensive use of the application. WhatsApp is becoming an effective communication tool between students and teachers because a wide range of people uses it, most of them have smartphones with the WhatsApp application installed, although other options may have an application with better features than WhatsApp. From the research results, it can be concluded that WhatsApp is a widely used tool among teachers and high-level students.

Keywords: Higher Education, Internet, instant messaging, whatsapp, applications

1. INTRODUCTION

Advances in technology have gained strength in recent years, generating different behaviors in individuals regarding communication, as it has been observed that there is a lot of influence of these advances in educational practices. In the last decade, it has become evident the use and widespread access to mobile devices of the Internet, and with it the step to the use of instant messaging applications highlighting among them WhatsApp (Coleman & Connor, 2019); (Tapia-Repetto, 2019)

Since communication in all individuals, the most used instant messaging application in recent years that is WhatsApp, which was launched in 2009 as an independent application and today has millions of users of all age groups, starting from the smallest or schoolchildren, to professionals and entrepreneurs, without forgetting the students and university professors who have made use of it to improve their communication (Coleman & Connor, 2019). Although these apps are not

entirely educational, they can facilitate learning through group collaboration, communication between people from different places, and even through connections between teachers and students. With their help, information can be exchanged, which can be very useful in creating a more educational environment.

While it is true that instant messaging has favored communication in different aspects, contact between students and teachers outside of class has been observed even more through this tool which can have both negative implications and disrespect for privacy limits, and positive mentioning among them is accessibility and immediacy (Hershkovitz, 2019).

A. Motivation for research

University education forms the main axis of the professional preparation of an individual, so the pedagogical dynamics at this level must always be up to the needs of students and teachers, so it is important to use technological tools that facilitate and complement this process with good communication between these groups (Guadamuz-Villalobos, 2020).

(Matienzo López, 2020) says that before the increased use and development of technology in modern life, various instant messaging applications have been created, and over time, these applications have become a

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real place in people's lives for basic interaction through devices connected to the Internet network.

Therefore, the integration of new information and communication technologies is important in current teaching practices, where instant messaging applications such as WhatsApp emphasize connectivity, adaptability and speed that facilitate communication and calm barriers. Currently, and for health reasons, separating teachers and students allows teachers to create new learning environments that are more interactive and personalized (Valerio, 2020).

Therefore, it is very important to thoroughly understand the strengths and weaknesses of this instant messaging application in the academic field because first, to improve the creativity (Lantarón, 2018) of teachers and students, texts, academic articles and the solution can be shared after each kind of confusion; it can also be mentioned that there are disadvantages such as inconvenience related to use at inappropriate times, misinterpretation of messages and reduced expressiveness and direct communication.

In recent years, the use of technological tools has increased as it offers more benefits and comfort to perform activities in various fields such as journal, academic and professional.

In the academic field, these technological tools are used by instant messaging applications such as WhatsApp, which has become the most popular application worldwide for its quality, providing countless alternatives such as audio exchange, video, links, images and documents. In addition, the use of messages and group calls without limit on the number of people and duration is specified. Thanks to the application's popularity, it has become one of the most important tools for communication between teachers and students, influencing the teaching methods educators use, making teaching more didactic, and displacing learning and traditional teaching methods.

B. review of the WhatsApp

An recently published article (Jimenez-Pitre, 2019) shows that the most popular social network among young people and the general population is instant messaging, which is the best in its class: WhatsApp, Instagram, Telegram, Snapchat, Facebook. Among all the apps described above, the most used in the study environment is WhatsApp; This is an instant messaging platform that is used by more than 1000 million people around the world every day and ranks as the most used mobile application in several countries since most people use a device or mobile.

WhatsApp is an application that works with Internet connection through mobile data or institutional, public or domestic Wi-Fi network (Portilla, 2020). Now

focus on the past, you will see how there have been some questions about communication in the past, you will see how there have been some questions about communication in the past, and you will have to ask yourself, how did they communicate? It can be noted that a lot of progress has been made. In addition, today they continue to innovate and create new things. This article attempts to analyze how this instant messaging affects whatsapp upper class students. I was waiting for this Work is a great contribution to society.

The University, to facilitate the receipt of notification, personal messages, events or tasks, takes into account the technological progress that and is being used. Whatsapp has been a great success, given that this application is a trend in all higher education institutions. In times of pandemic, there is some curiosity about the use of WhatsApp among young university students and the new forms of educational communication found in the UCACUE.

WhatsApp today has more than 2,000 million users in all countries of the world. This platform completely replaces the conventional table as sms and mms since it is considered faster, more effective and of higher quality for sending documents, audio, video and forums. That is why it is said that mobile operators can become disabled in the functions offered by conventional messaging.

On the other hand, it is inevitable that the Internet, as well as mobile applications and the web, continue to innovate over time, creating new technological infrastructure, both software and hardware, every day. According to Salinas (2017), the situation with the WhatsApp mobile application is the same as in 2009, and it already works on mobile phones (Salinas, 2017). Among the updates that were made on the platform is the use of whatsapp web ie, that this app can be used in the computer through the QR.

When you enter WhatsApp Web, the first thing you will see is that the screen is divided into two main areas. On the left we find a list of all contacts, and on the right there are conversations with individually selected customers. Moreover, the way we send and receive messages is the same as we use WhatsApp app on our mobile phones, you can send different types of files like photos, videos and documents stored on our computer, and you can also change your status, profile, etc. Download any type of file from your phone, such as images, videos or documents related to WhatsApp, Simply selecting the file and sorting the download. It's all very simple.

You can also share a link to a pre-selected website in your browser with your contacts. It should be remembered that many people find it convenient to use a mouse or the roof of their computer, be it a desktop computer or a laptop, to use this web tool. This tool is a

security application developed by the same creators of WhatsApp. Always remember that for WhatsApp Web to work, your phone must be turned on, connected to the Internet and near a computer or laptop (ACDeSdigital, 2019)

II. METHODOLOGY

This study is quantitative, according to the authors and by the characteristics presented (Torres, 2019) is a methodology that allows the separation of methods, medir fenó less, use statistics, etc. Among its advantages, it also allows to create results, controlling phenomena, accuracy and predictions according to their development.

Also, considering the use of WhatsApp in universities, the following proposal can be made to evaluate the impact of WhatsApp on the entire university population, covering a representative sample of teachers of higher medical education. How to improve creativity in teachers and students, you can share texts and academic articles and resolution of doubts generated after each class. Among the disadvantages are distraction due to use at inappropriate times, misinterpretation of the message and decreased expressiveness and direct communication.

Taking into account the previous approach, it is important to know in depth about the advantages and disadvantages of this instant messaging application in the academic field because within there are aspects such as improving creativity in teachers and students, there are texts and academic articles, and resolution of doubts generated after each class at UCACUE. The evaluation of the frequency and duration of the use of the application, in addition, took into account another objective, such as the knowledge of WhatsApp messaging in teachers of higher medical education as a communication tool, with this the degree will be analyzed of knowledge about messaging in WhatsApp in the professors of the Catholic University of Cuenca

To evaluate these phenomena, the study has been supported by conducting research that allows the collection of data and, therefore, results using computer tools of statistical analysis to provide more accurate answers to achieve the objectives set. Data collection was collected randomly from a group of higher medical education faculty. Like UCACUE's higher medical education professors, they usually prefer to use WhatsApp to communicate with their students, authorities, and peers, whether it's important to work.

A surveyed population composed of Professors of the Medicine career of the Catholic University of Cuenca was used with a finite and reduced sample, with a total of 146 teachers the study will be carried out in the entire population in order to reduce the margin of inferential error.

To determine the use of messaging application in WhatsApp, the survey called MULTICAGE-TIC will be

applied, which has been modified based on the objectives of study, resulting in a total of 10 questions aimed at the use of instant messaging in WhatsApp.

Figure 1 shows the primary data collection was carried out to know about the teachers and surveyed, requesting only data from them: gender, civil status, age, level of education and has a mobile phone.

Figure 1: Data collection

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Uso de mensajería de WhatsApp en docentes de la educación médica superior como herramienta de comunicación en la Universidad Católica de Cuenca

Los datos obtenidos mediante este formulario serán de total confidencialidad

Formulario # _____

Fecha: mes/día/año ____/____/____

1. Edad: ____ (años)
2. Sexo: femenino () masculino ()
3. Estado civil:
 - () Soltero
 - () Casado
 - () Divorciado
 - () Viudo/a
1. Nivel de instrucción
 - () Tercer Nivel
 - () Cuarto Nivel
1. Tiene en su teléfono móvil la aplicación de mensajería instantánea WhatsApp
 - () Si
 - () No

Source: Authors' own elaboration.

The tool called survey shows the title "The use of WhatsApp messaging by teachers of higher medical education as a communication tool at the Catholic University of Cuenca," then briefly explains what the tool does, you will find the list of questions related to the use of WhatsApp

Figure 2: Survey questionnaire

	Preguntas	SI	NO
1	¿Dedica más tiempo del que cree que debería estar conectado a Internet con fines educativos?		
2	¿Utiliza la herramienta de mensajería instantánea de WhatsApp para comunicarse con sus estudiantes?		
3	¿Usted ha creado grupos de mensajería de WhatsApp con sus estudiantes?		
4	¿Dedica más tiempo del que cree que debería a chatear con sus estudiantes por WhatsApp a través del móvil?		
5	¿Considera importante que la aplicación de mensajería WhatsApp para una comunicación efectiva con los estudiantes?		
6	¿Le han dicho sus familiares o amigos que pasa demasiado tiempo consultando y comunicándose con sus estudiantes a través de WhatsApp?		
7	¿Consideran que existe una comunicación eficiente en docentes y estudiante mediante la mensajería de WhatsApp?		
8	¿Considera a WhatsApp una herramienta rápida para enviar y recibir información de los estudiantes?		
9	¿Ha existido conflictos con los estudiantes por el mal manejo de mensajería de WhatsApp?		
10	¿Ha podido solucionar problemas educativos mediante el uso de la mensajería de WhatsApp?		

Source: Shows the ten questions asked to higher level students,

Authors' own elaboration.

III. RESULTS AND ANALYSIS

A sample of 63 professors from the Catholic University of Cuenca from the faculties of Medicine, Biopharmacy and

Nursing with whom the study was carried out, obtaining statistical quantitative variables

Table 1. Quantitative variable

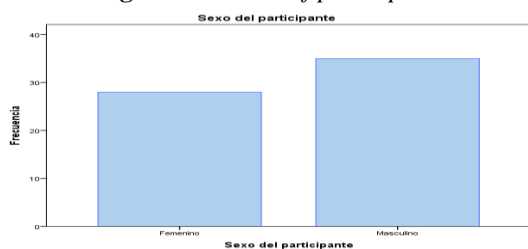
N	63
Valid	0
Lost	42,32
Mean	
Mean standard error	
Median	40,00
Mode	33 ^a
Standard deviation	10,309
Variance	106,285
Asymmetry	,242
Standard asymmetry error	,302
Kurtosis	-1,008
Standard error of kurtosis	,595
Rank Minimal	40
Rank Maximum	63

Source: Authors' own elaboration.

In relation to the age of the participants, an average of 42.32 is obtained, a median is in 40 and mode in 33, with a standard deviation of 10.30 and positive asymmetry since in this case, it is observed that the value of the mean is higher than the mode and median. We can also find the minimum age of 23 years and the maximum of 63 years. In Ospina's study of professors at the Pontifical Bolivarian University in the Faculty of Medicine, it was observed that the ages were in a range of 29 and 56 years finding a similarity with the data obtained in this survey. Gender of participant

Qualitative variables

Figure 3. Gender of participant

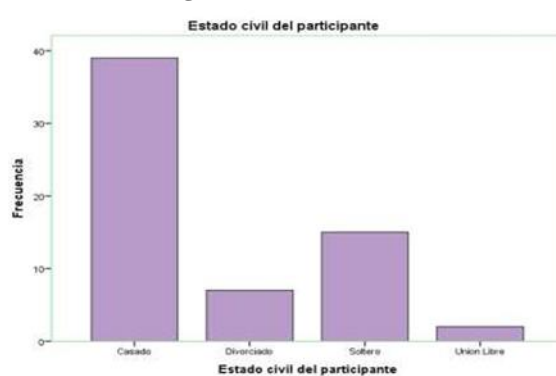


Source: Authors' own elaboration.

With regard to sex, Figure 3 of the participants surveyed can describe that there is a higher prevalence of males with 55.6% compared to 44.4% of females. In correlation with the literature Maffet et al. in their study of teachers and students, greater participation was found by the male sex in terms of teachers, while in the students, there was equal participation in the group of students.

Marital status

Figure 4 Marital status

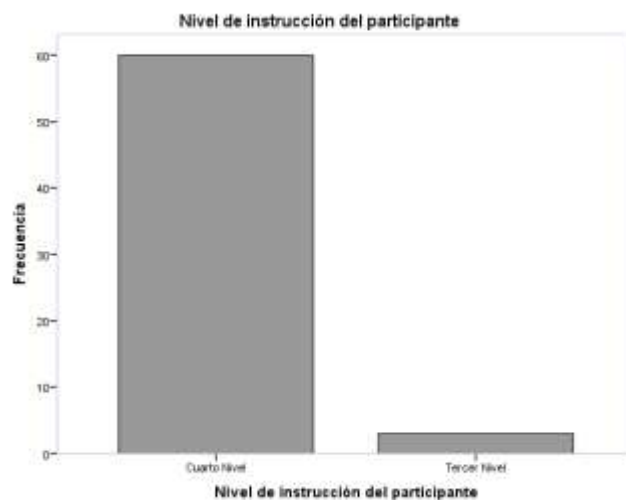


Source: Authors' own elaboration.

With regard to marital status, figure 4 of the respondents described that there is a greater number of married participants with 61.9%, followed by singles with 23.8%, divorced respondents represent 11.1% and those who are in a free union reach 3.2%.

Education level

Figure 5 Level of Education



In relation to the level of instruction, figure 5 of the respondents observed a marked predominance of participants who have a fourth level of preparation 95.2% to leaving with the remaining 4.8% of participants who have a third level, this is because in higher education teachers must have at least third-level instruction as a requirement to work within the University. However, the Catholic University of Cuenca in its accreditation process,

has raised the contraction of teachers who have fourth-level instruction, hence the predominance of this group.

Table 2 shows the answers for each probability related to the survey question, expressed as a percentage. Generally, the highest percentage in each question is reflected in the first option of the question, which for most questions corresponds to the affirmative part of the use of the

application. To facilitate the visualization of the answers in each variant of the question, Figure 3 only indicates the percentage of the questions and the graphs corresponding to these percentages, where it can be seen that the option "if" is the most frequent option among the answers obtained.

Table 2: Results in percentage of the survey applied to UCACUE teachers

Question	Yes	No
1-Do you spend more time than you think you should be connected to the Internet for educational purposes?	84%	16%
2- Do you use WhatsApp's instant messaging tool to communicate with your students? If your answer is "NO", immediately end the survey.	97%	3%
3- Have you created WhatsApp messaging groups with your students?	73%	27%
4- Do you spend more time than you think you should to chat with your students on WhatsApp through mobile?	44%	56%
5- Do you consider it important that the WhatsApp messaging application for effective communication with students?	84%	16%
6- Have your family or friends told you that you spend too much time consulting and communicating with your students via WhatsApp?	48%	52%
7- Do you consider that there is efficient communication in teachers and students through WhatsApp messaging?	78%	22%
8- Do you consider WhatsApp a quick tool to send and receive information from students?	95%	5%
9- Have there been conflicts with students due to the mishandling of WhatsApp messaging?	29%	71%
10- Have you been able to solve educational problems by using WhatsApp messaging?	84%	16%

Source: Authors' own elaboration. Fountain Table 2 shows the answers to the questions in a general way applied to UCACUE teachers.

Figure 3. Results of the survey applied to UCACUE teachers

QUESTION	OP 1	OP 2
P1	53	10
P2	60	3
P3	46	17
P4	28	35
P5	53	10
P6	30	33
P7	49	14
P8	60	3
P9	18	45
P10	53	10

Source: Authors' own elaboration. Fountain

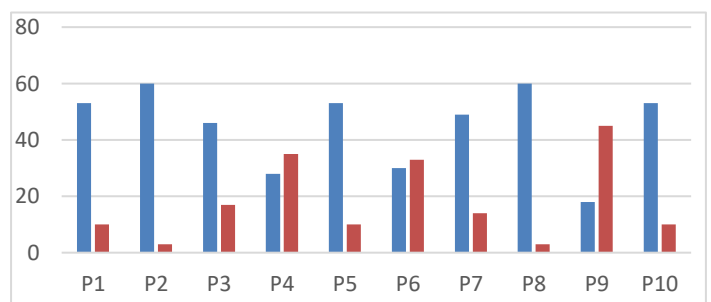


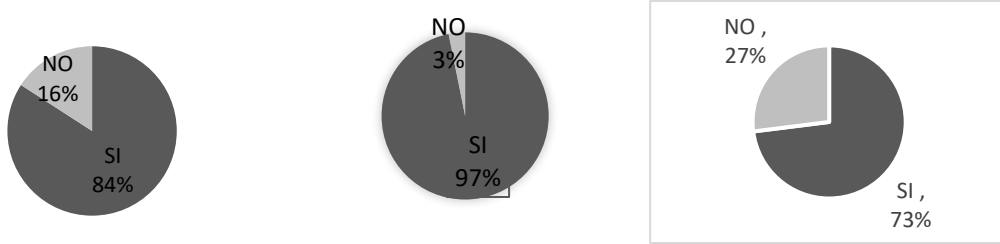
Figure 3 shows the graph and results of each of the answers used for each question, product of the applied survey.

The first question Figure 4 Do you spend more time than you think you should be connected to the Internet for educational purposes? Of the 63 teachers surveyed, 86% spend their time connected to the Internet for educational purposes and 16% do not spend their time for this purpose. The second question figure 5 Do you use WhatsApp's instant messaging tool to communicate with your students? If your answer is "NO", immediately end the

survey. 97% use it as a tool for their communication with students. And 3% don't. In the third question *figure 6*.

Have you created WhatsApp messaging groups with students answer 73% yes and 27% no

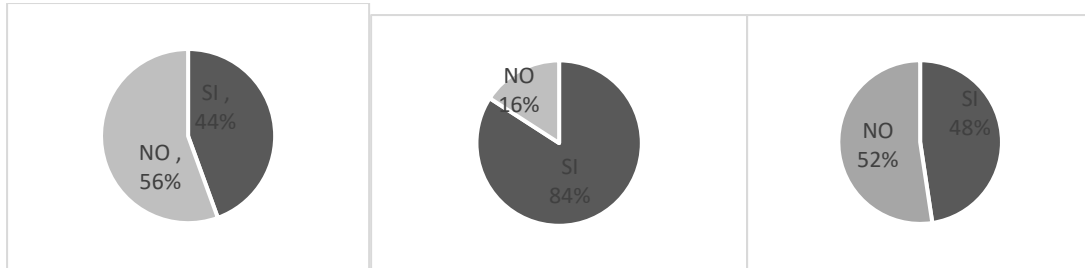
Figure 4 Percentage P1 Figure 5 Percentage P2 Figure 6 Percentage P3



In *Figure 7*, question four: Do you spend more time than you think you should chat with your students on WhatsApp via mobile? 44% were obtained that if they spend time chatting and 56% that they do not do this activity. In *Figure 8* Do you consider it important for the WhatsApp messaging app for effective communication with students? 84% consider messaging important and

16% do not. *Figure 9* Have your family or friends told you that you spend too much time consulting and communicating with your students via WhatsApp? With 48% answered that if they spend too much time communicating with students and 52% do not.

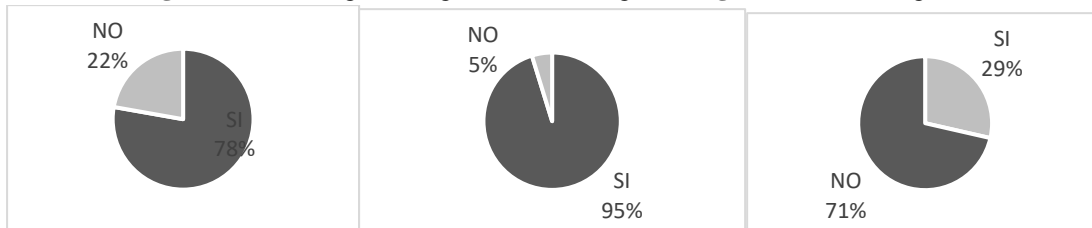
Figure 7 Percentage P4 Figure 8 Percentage P5 Figure 9 Percentage P6



In *figure 10* in question seven, do you consider that there is efficient communication in teachers and students through WhatsApp messaging? 78% say they have efficient teacher-student communication and 22% say no. *Figure 11* with question eight Do you consider WhatsApp a quick tool to send and receive information from

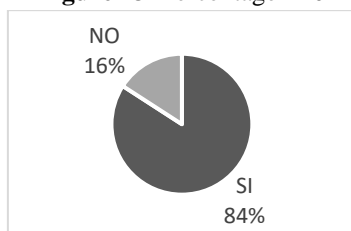
students? 95% answered positively and 5% no. In question nine *Figure 12* shows that 29% agree with the conflicts that have arisen or messaging whatsapp and 71% have not dealt with this conflict.

Figure 10 Percentage P7 Figure 11 Percentage P8 Figure 12 Percentage P9



In the last question it is observed that 84% have solved educational problems through this app and 16% have not.

Figure 13 Percentage P10



IV. Conclusion

In short, the popularity of this application has become one of the main tools for communication between teachers and students, influencing the teaching method applied by the educator, because in this way, teaching becomes more didactic, breaking with traditional learning and teaching techniques in which the student could only ask questions and concerns directly and in an assigned time. As for the results obtained through the survey carried out, it can be stated that the interaction between teachers and

students through messaging on WhatsApp is active, however, despite the benefits that this application can provide us, there are certain negative aspects, which create conflicts due to its misuse, which have not been able to be resolved entirely, generating a state of discomfort for both teachers and students involved.

This study shows that the use of WhatsApp as a communication tool in medical education is of great help because a high percentage interact frequently with their students in the creation of groups to submit information, tasks or any documentation that has to do with their education.

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