

AUTHOR:

Prof Geesje van den Berg¹ 

Dr Patience Kelebogile
Mudau¹ 

AFFILIATION:

¹University of South Africa

DOI: <http://dx.doi.org/10.18820/2519593X/pie.v40.i1.7>

e-ISSN 2519-593X

Perspectives in Education

2022 40(1): 112-128

PUBLISHED:

04 March 2022

RECEIVED:

10 August 2021

ACCEPTED:

29 November 2021

Postgraduate students' views on the use of WhatsApp groups as an online communication tool to support teaching and learning during COVID-19

Abstract

The purpose of this research was to identify students' views on the use of WhatsApp in an online postgraduate course at a South African Open Distance eLearning institution during the COVID-19 pandemic. During this time, lecturers and students relied on their mobile devices to communicate using different tools, including WhatsApp. Although it is a trending communication tool in teaching and learning, little is known about students' views on using WhatsApp to support teaching and learning in a time of crisis. Within an interpretative paradigm, the research followed a case study design and a qualitative approach. The study used questionnaires with open-ended questions to collect data. The sample consisted of 16 students enrolled for a Master's in Education programme. Data were analysed using a thematic approach. The findings showed that WhatsApp groups provided students with immediate, fast, easy to use and affordable communication and connection, thus, creating a sense of belonging. However, a possible disadvantage was also observed. A WhatsApp group can defeat its purpose if students use it for non-academic chats and it can become a distraction. This study proposes that institutions of higher learning consider using WhatsApp groups to support learning communities as they can alleviate feelings of loneliness and isolation, specifically in times of crisis. Furthermore, the study recommends that the purpose of WhatsApp groups should be clearly outlined to students and that lecturers and students should agree upon some ground rules before they start using WhatsApp groups to support teaching and learning.

Keywords: *connectedness; COVID-19 pandemic; isolation; online communication social needs; student support; WhatsApp groups.*

1. Introduction

The outbreak of the COVID-19 pandemic has affected all sectors globally since the beginning of 2020. Higher education was one of the worst-hit sectors as all institutions had to close to adhere to the lockdown rules that were implemented to save lives. Hagerty and Williams (2020)

note that crises such as COVID-19 pose a profound threat to our most basic human needs, which are connection and communication between humans. Lieberman (2013) confirms that social connection is essential for survival in humans.

To bridge the communication gap during the COVID-19 crisis, lecturers had to find new ways to connect with students and assist them in coping with unprecedented isolation. Although higher education institutions use walled platforms such as learning management systems (LMS) to support students (Maboe, 2017), Gomes *et al.* (2015) found that social media can complement this support. A study by Mnkandla and Minnaar (2017) found that although social media such as blogs, wikis, Skype, Google Hangouts, Facebook and WhatsApp lie outside conventional forms of student support, they could be used to facilitate e-learning in higher education. Chaka, Nkhobo and Lephala (2020) even argue for the importance of integrating online and mobile learning tools for student support in the Open Distance eLearning (ODEL) arena, which is the context of this study.

WhatsApp is a popular smartphone application for sending instant and real-time communication to individuals or groups. It also allows for easy sharing of different forms of content files such as audio, videos and images (Asmara, 2020). However, authors such as Güler (2017) and Giordano *et al.* (2015) agree that limited research has been done on the use of WhatsApp as a communication tool to support teaching and learning. Therefore, this research investigated if – and how – WhatsApp can act as a communication tool to support teaching and learning, specifically in times of crisis. The research question we were exploring in this article is: *What are postgraduate students' perceptions of the use of WhatsApp as a communication tool to support teaching and learning during COVID-19?*

From the main question, we derived the following sub-questions:

- How do WhatsApp groups assist postgraduate students as a communication tool to support their learning?
- What are the advantages of WhatsApp groups as a communication tool?
- What are the disadvantages of WhatsApp groups as a communication tool?
- How did the purpose of WhatsApp groups change because of the COVID-19 pandemic?

The article begins with a literature review, followed by the theoretical framework. Thereafter it covers the methodology for the empirical research before presenting the findings and the conclusions.

2. Literature review

The COVID-19 pandemic forced higher education institutions to use different technologies available at their disposal to continue with teaching and learning during lockdown. Given the need to connect socially as individuals, lecturers and students used means available to connect. In some contexts learning management systems were in use or preferred, while in others lecturers and students opted to use social media such as Facebook, Twitter and WhatsApp and communications technologies such as Microsoft Teams and Zoom. Such technologies did not only serve the purpose for lecturers and students to stay mentally balanced and socially connected, but also to continue with teaching and learning (Mishra, Gupta & Shree, 2020). As an example, a study by Mpungose (2020) showed that many students had to submit their assignments for the first time on the learning management system, while the Moodle learning

management system was the preferred way for learning and connection among higher education students in Ghana, followed by Google Classroom, WhatsApp, Google Meeting and Zoom (Agormedah, *et al.*, 2020).

Social media and other digital technologies such as WhatsApp have become indispensable in helping users stay connected during the lockdown. Although these technologies supported student learning and research needs prior to the COVID-19 pandemic (Deng & Tavares, 2013; Madge *et al.*, 2019), they became more popular for teaching during lockdown (Annamalai, 2019; Mpungose, 2020) as they made communication in and outside the learning arena possible. As an example, a study by Maphosa, Dube and Jita (2020) found that WhatsApp offered students opportunities to learn during the COVID-19 pandemic as it was easy to manoeuvre and it fostered engagement between students and their lecturers. The authors add that this tool allowed lecturers to give audio feedback, thereby facilitating communication. Thus, it helped students to construct knowledge and to stay involved in their own learning. Using WhatsApp increased collaboration and communication between lecturers and students, particularly during the hard lockdown (Major *et al.*, 2020). WhatsApp communication enabled lecture updates, assignment instructions and discussions about course content; students could contact their lecturers regardless of time differences, physical distance or office working hours – and thus reduce delays in feedback. As Asmara (2020) points out, using WhatsApp can enrich the learning experience and make it relatively easy for lecturers to contact students at their own convenience.

According to scholars such as Yeboah, Horsu and Abdulai (2014), Bouhnik, Deshen and Gan (2014) as well as Alsanie (2015), WhatsApp instant messaging is a cross-platform mobile messaging service that enables users to send and receive a variety of media, such as text, images, videos and audio media messages, using the internet. It operates on smartphones such as iPhone and Android devices (Alsanie, 2015). WhatsApp uses the same internet data as for email and web browsing without additional charges (Alsanie, 2015). Moreover, it is easy to form WhatsApp groups or to use the application for private communication (Tang & Hew, 2017). Within an educational context, Lambton-Howard, Kiaer and Kharrufa (2020: 1712) state that it allows lecturers and students to create “interconnected groups”.

Stone, Logan and Unit (2019) summarise the advantage of WhatsApp groups as facilitating online collaboration, connection and cooperation between students and lecturers. Church and De Oliveira (2013) posit that the reasons for the popularity of WhatsApp groups are the low cost, the ability to send an unlimited number of messages, immediacy, the ability to conduct an ongoing conversation with many fellow students simultaneously and the creation of a community of friends, fellow students or family. In addition, WhatsApp offers real-time texting or communication, with easy sharing of information and media content (Alubthane & Alyoussef, 2021). It is easier for students to enquire about academic-related matters and for lecturers to respond without having to contact students individually. Every person in the group receives the same message, and possible uncertainties are cleared up. In this regard, the presence of lecturers can influence the group conversation and make it more focused, formal and controlled (Nuuyoma, Mhlope & Chihururu, 2020).

A few shortcomings of WhatsApp groups were cited by various researchers. For example, Statista (2017) warns that WhatsApp communication, if not well managed, can defeat its purpose, create an extra workload and distract from learning. In addition, a study by Alubthane and Alyoussef (2021) found that instructors tended to ignore students’ questions and that

there was a lack of policies to guide the use of WhatsApp groups. Another shortcoming stated by Annamalai (2019) was a lack of student commitment to effective participation in WhatsApp groups when used for learning purposes. Thus, So (2016) suggests that the use of WhatsApp groups for teaching and learning could interfere with students and lecturers' private lives.

3. Theoretical framework

Because Maslow's theory of human motivation and the connectivist learning theory have connection as their key principle, they were found suitable to underpin the current study. In his seminal paper, Maslow (1943) proposed his Theory of Human Motivation outlining a set of basic human needs that are organised in a hierarchy of relative prepotency. He identified physiological needs as the lowest order and self-actualisation as the highest (Maslow, 1943). At the lowest level, Maslow posits that humans are driven by psychological needs to sustain life, including the need for food and air. At the second level, humans are motivated to pursue safety, driven by needs for order, certainty and comfort. The third level of Maslow's hierarchy refers to the social need to belong and the need for connection (which are relevant to the current study). According to Maslow (1962), the need to belong is more important than the requirement for knowledge and understanding, and it will take precedence over esteem and self-actualisation, which comprise the fourth and highest level. The sense of belonging has been stated by educational researchers such as Peacock and Cowan (2019) as one of the most important needs of all students – to function well in all types of learning environments. Madzalan *et al.* (2021) argue that in times of crisis such as the COVID-19 pandemic, students do not have the luxury of the physical presence of fellow students and/or lecturers, and therefore their social needs should be met in another way so that they will not feel abandoned and isolated. This is important for successful learning and for helping students to realise that they are not left to study and cope on their own, despite the crisis. Maslow's hierarchy of needs is shown in Figure 1 below.



Figure 1: Maslow's hierarchy of needs (Wikimedia Commons, 2019)

Closely linked to Maslow's reference to social needs, which include connection and belonging to a group (Madzalan *et al.*, 2021), is connectivism. George Siemens and Stephen Downes developed Connectivism as a learning theory in 2005; it is a network learning theory for the digital age influenced by technology and socialisation (Goldie, 2016). According to Goldie (2016), connectivist learning occurs when knowledge is actuated by students who are connecting to and participating in a learning community. Siemens defines the latter as the "clustering of similar areas of interest that allows for interaction, sharing and dialoguing and thinking together" (2005:78). The interaction takes place between humans and non-humans and it can include text, videos and multimedia, which are referred to as nodes in the connectivist model (Siemens, 2006). These nodes form networks or communities of learning. Participation is dispersed and distributed using technologies such as mobile devices and mobile applications (including WhatsApp), and people are seamlessly connected for a given purpose, for example communication, teaching or learning (Downes, 2010; Kop & Hill, 2008; Siemens, 2005; Thomas & Gelan, 2018).

4. Methodology

4.1 Design

Because the purpose of an interpretative research paradigm is to make an effort to understand and interpret what participants are thinking (Guba & Lincoln, 2000), we found this paradigm

to be the most suitable for this study. Interpretative paradigms emphasise understanding the individual and the interpretation of their experiences, rather than the viewpoint of the researcher (Kivunja & Kuyini, 2017). The purpose of the paradigm suited the purpose of our study, as we were interested in students' viewpoints on the use of WhatsApp as a communication tool to support their learning. Within an interpretative paradigm, a qualitative descriptive approach was best suited for this study. In order to describe the facts, their properties and relationships, this approach, which refers to a specific event experienced by individuals or groups of individuals, is particularly appropriate when information is required from those who are experiencing the phenomenon under investigation (Asmara, 2020). A single case study was deemed to be the appropriate design as the research intended to examine a contemporary phenomenon in a real-life situation (Yin, 2013). The phenomenon under study was the use of WhatsApp by a group of students enrolled for a specific qualification at the University of South Africa (Unisa).

4.2 Participants

The participants in this case study were 16 students enrolled for one or more of the four modules of a structured Master's programme in Education at Unisa, which is an ODeL institution. The four modules were offered by two lecturers who are also the authors of this article. Of the 16 students, ten were women and six were men, all mature students holding a teaching position at either a higher education institution or a school at the time of the study.

4.3 Context and procedure of data collection

The modules under study are part of an online structured Master's programme in Education, consisting of four taught modules and a research proposal which, upon approval, is followed by a mini dissertation. All modules have the same structure and consist of 12 lessons, six threaded, graded discussions, two written assignments and a summative reflective portfolio. Academics, administrators and students can connect at anytime from anywhere via the institutional LMS for general discussions, announcements or email.

As part of their welcome message at the beginning of the 2021 academic year, the lecturers tested the level of student interest in setting up WhatsApp groups for the different modules to create opportunities for communication to support their learning. Students were invited to submit their mobile phone numbers if they wished to join the WhatsApp groups. They were informed that signing up for the WhatsApp groups was voluntary and that they could leave the group at any time should they wish to do so. All students joined the WhatsApp groups of the modules for which they were enrolled.

The intention of the module WhatsApp groups was twofold. First, the purpose was to complement information sharing on the LMS. Brief notices and messages about LMS announcements regarding important events such as due dates for assignments, completion of grading or the commencement of a new lesson were shared on WhatsApp as an additional information source. Second, the WhatsApp groups served as a platform for students to contact one another or ask questions to the group or the lecturers. As lecturers, we were also mindful of the abnormal circumstances during the COVID-19 pandemic and we regarded the WhatsApp groups as possible additional support mechanisms for students. In line with the policy of the university, we used WhatsApp as a communication tool to support teaching and learning, in conjunction with the LMS, and not as a teaching tool (Unisa, 2020; 2021).

At the end of the fourth month of their studies, after students had completed their third graded discussions, they were requested to complete a questionnaire with biographical and

open-ended questions on their perceptions of the module WhatsApp groups. This was done to determine the value of and the need for WhatsApp groups (if any) in these modules, with specific reference to the unusual circumstances because of COVID-19. The feedback from students was also intended to assist us as lecturers in our planning. The questionnaire is available in Appendix A.

Students received the questionnaires on the module sites of the university's LMS. They were requested to complete the questions on the module sites or via email. The students were informed about the study, including the fact that participation was voluntary, and they were assured of anonymity. For this reason, participants are referred to as P1, P2, and so forth in the data analysis section to protect their identities. Ethical clearance was received from the Research Ethics Committee of the College of Education at Unisa. Of the 19 students involved in the programme at the time of the study, 16 completed the questionnaires, and all the responses were completed on the LMS.

4.4 Data analysis

Thematic analysis was used to analyse the data, which entails searching for themes emerging from the narrative data on the phenomenon investigated. Thematic analysis can either be inductive or deductive; for this study we used both. Inductive analysis followed Braun and Clarke's step-by-step coding procedure: become familiar with the data; generate initial codes; search for themes; review themes; define themes and write up the data (Braun & Clarke, 2006). Deductive analysis was used to respond to the theoretical framework, as discussed earlier in this article. This dual process was used in order to be data-driven and theory-responsive (Chaka *et al.*, 2020).

Based on the above steps, themes were created iteratively and revised constantly. The authors acted as independent reviewers to code the data, ensuring inter-rater reliability and validity (Downing, 2003). As part of the data analysis process, we compared the codes, removed what was irrelevant, reached consensus and finalised the themes.

5. Findings and discussion of the findings

From the student responses, the following themes emerged, namely communication and connection to support learning; advantages of WhatsApp groups as a communication tool; disadvantages of WhatsApp groups as a communication tool; and the influence of COVID-19 on the use of WhatsApp groups. Table 1 summarises the themes and sub-themes as well as their links to the theories framing this study and are discussed next.

Table 1: The themes and sub-themes and their relation to the relevant theories

| Themes | Sub-themes | Link to the theory (Maslow's hierarchy of needs; Connectivism) |
|--|---|--|
| Communication and connection to support learning | Immediacy and ease of communication Belonging to a group | Learning communities Connection among humans and between humans and non-humans A sense of belonging as a basic human need Lessen feelings of isolation Participation |
| Advantages of WhatsApp groups | Affordability Sharing of learning materials | Learning communities Connection among humans and between humans and non-humans A sense of belonging as a basic human need Lessen feelings of isolation Participation |
| Disadvantages of WhatsApp groups | Defeating the purpose, Distraction | |
| The influence of the COVID-19 pandemic on the purpose of WhatsApp groups | Change from a social networking tool to an academic and professional tool Mitigates feelings of loneliness | A sense of belonging as a basic human need Learning communities Connection among humans and between humans and non-humans Lessen feelings of isolation Participation |

5.1 Communication and connection to support learning

In this theme two sub-themes emerged: immediacy of communication and the sense of belonging to a group of students and lecturers.

When participants were asked how the WhatsApp groups assisted them with issues related to their modules, many of the responses referred to the immediacy and speed of communication. Nine students referred to WhatsApp as a platform that gave them immediate responses; efficiency because it was quick; ease of access to important information and answers when they needed them. Students also mentioned that important information was shared by lecturers and fellow students and urgent messages were received and could be posted on the WhatsApp group when needed. The fact that both students and lecturers could post messages when they needed to do so, created a sense of belonging as they felt comfortable to be part of this network or learning community. This feeling of belonging also prevent students from feeling isolated and left on their own. Regarding specific information, they mentioned examples such as sharing due dates, dates for Microsoft Teams meetings and assignment information by lecturers. Examples of information sharing amongst students referred to interesting and relevant articles they were sharing, and guidance on how to access information on the learning management system. This aspect of information sharing

showed that the WhatsApp groups functioned as learning communities, which allowed for interaction, dialoguing and thinking together using digital devices (Goldie, 2016). Learning took place in this connected context, and these communities are possible because the immediacy and ease of WhatsApp messaging have been noted by several authors (for example, Church & De Oliveira, 2013; Alsanie, 2015; Sampath *et al.*, 2017). Consequently, when students feel a sense of belonging, it can increase their educational success and assist them in staying motivated.

In respect of efficiency, it appeared that some participants contrasted this mode of communication with email. This was an unexpected response that showed that email was not their preferred mode of communication, and that social media platforms may be favoured because of their accessibility and immediacy. For example, one participant indicated:

WhatsApp is handy real-time communication for me. I notice and engage with WhatsApp communication sooner than with email (P1).

Another student had a similar response:

The WhatsApp group is fast and efficient – information is immediately at hand, rather than having to log into an email that contains so many entries that do not directly relate to my studies (P3).

From this response, it seems as if email communication is not necessarily experienced as a user-friendly way of communication.

The second sub-theme was the sense of belonging. Participants felt that the WhatsApp groups put them in contact with their fellow students and therefore assisted them in general with their learning. One participant stated:

The communication with my peers has been of value and was engaging (P16).

Another said:

The group helps us to know our peers who also have enrolled in this module. The WA group is a supportive platform. You do not panic alone. You can share your frustrations, and peers and colleagues offer support. It can be lonely to study in ODeL. The WA group gives you confidence that you have other people also in the course. You know, any time if you need information or support, you can get it from someone immediately. Communication and support are amongst the best advantages of the WA group (P14).

This statement is particularly important for distance education students who do not share a physical space with their peers and who might not have regular interaction with or know their fellow students and their lecturers (Croft, Dalton & Grant, 2010). This aspect is confirmed by a participant who regarded the WhatsApp groups as tools to meet his lecturers and fellow students online, despite the distance. Another example of a participant is of relevance:

If we did not have this WA group, I would not have known my lecturer and fellow students (P3).

The sense of belonging to a group was mentioned by most participants and is related to Maslow's level of social needs, which is considered one of the most important needs for students (Peacock & Cowan, 2019). Although participants referred to the connection they had

with their fellow students, many also mentioned the connection with the lecturers and other students. One participant stated:

Our WhatsApp groups help to bring students and lecturers together and are also a way of sharing ideas (P6).

Another added:

The WhatsApp groups have certainly connected me to the group and create a sense of belonging, collegiality and solidarity (P8).

The fact that participants mentioned that they could get information and support whenever they needed it, confirmed that they regarded the WhatsApp group as a tool connecting them to their learning community, which is in line with connectivist learning, stating that within such a community, learners can access, process, apply and create information with the help of others connected to the networks and technology (Siemens, 2005). Thus, WhatsApp acted as a catalyst to enhance interaction and connection among students and lecturers in real time across geographical separation caused by the lockdown.

5.2 Advantages of WhatsApp groups as a communication tool

The second theme emerged from the question about the advantages of WhatsApp groups. From this theme, two sub-themes emerged, namely affordability and a supporting tool for learning.

Students regarded WhatsApp to be an affordable tool. According to one participant:

For me to use WhatsApp is more affordable because the social media bundle rates are very affordable compared to any Internet data bundle – WhatsApp is a cost-effective communication tool with unlimited real-time messaging with the opportunity even to send and receive voice messages (P1).

More students noted that they only had data on their phones and that the WhatsApp groups helped them to stay connected, despite financial challenges. The affordability of WhatsApp communication, confirmed by authors such as Church and De Oliveira (2013) as well as Alsanie (2015), is an important advantage in a context where many students struggle financially.

Numerous participants found the WhatsApp group useful for sharing information, learning material and resources. In order to support learning, sharing information between humans and non-humans virtually is a tenet of connectivist learning (Siemens, 2006). It was interesting, that students used the WhatsApp groups on several occasions to share relevant information related to their lesson content with each other, confirming that WhatsApp was used as an actual learning tool.

5.3 Disadvantages of WhatsApp as a communication tool

Students were asked to comment on the disadvantages of their WhatsApp groups. Their responses indicated distraction and defeating the purpose of the group as sub-themes.

Three students said the group could easily become a chat group and lose its focus on information sharing. One student, while acknowledging that this had not yet happened in her WhatsApp groups, stated:

A disadvantage is when WhatsApp groups become “chat groups”, instead of focusing on the purpose for which they were created (this has not happened in any of my modules, but I do know that it does happen) (P3).

Other participants’ responses confirmed that students sometimes forgot the purpose of the group and indulged in irrelevant chat and messages. Two participants mentioned that they found the unrelated messages especially disturbing when they had limited time and/or insufficient amounts of data. In fact, the WhatsApp groups were sometimes experienced as invasive, distracting and disturbing. In this regard, one participant said:

WhatsApp messages can be invasive and distracting, especially when people post irrelevant messages (P7).

Another added:

WhatsApp can be very distractive. Sadly, they are a necessary evil (P13).

We found this an interesting finding, because, on the one hand the WhatsApp groups lessened feelings of isolation, created connections and a sense of belonging to a learning community, but on the other hand, when students were involved in non-academic chatting, they felt that they did not have time and even found it distractive and evasive. In this regard, So (2016) adds that irrelevant and distracting messages might be disturbing and go as far as interfering with students’ private lives if the messages are not planned and managed well. This means that the purpose of WhatsApp groups must be communicated to students when they are created.

The disadvantages pointed out by participants raised questions about the management of the WhatsApp groups under study. Although we as the lecturers did not provide any rules or guidelines for participation in the WhatsApp module groups, we are now aware that this is a necessary aspect to plan for in future. This point is confirmed by Statista (2017) in concurrence with Alubthane and Alyoussef (2021) noting that it is common for students using WhatsApp for teaching and learning to move on to other issues not related to academic matters. The authors claim that this happens if there are no policies guiding the flow of communication.

5.4 The influence of COVID-19 on the use of WhatsApp groups

This theme flowed from a question on whether and/or how the COVID-19 pandemic has changed students’ use of the WhatsApp groups. From this theme two sub-themes emerged: the change from a social networking tool to an academic and a professional tool; and mitigating the feeling of loneliness.

When asked if the use of WhatsApp groups have changed because of the influence of the COVID-19 pandemic, participants had different views. Nine of them indicated that the purpose of WhatsApp groups had not changed for them, but the rest of the participants had opposing views. One student went as far as referring to a “remarkable change in the use of WhatsApp” (P2) and admitted that previously she had not paid much attention to WhatsApp group communication as it was mainly used for social networking. She believed that since the start of the pandemic, WhatsApp groups are increasingly being used as academic and professional platforms. Other students made similar comments, saying that WhatsApp has become a tool to supplement the other professional communication channels provided by the university. Earlier research by Gomes *et al.* (2015) as well as Chaka, Nkhobo and Lephala (2020)

confirm that social media platforms are needed to complement the formal LMS in supporting students. However, from the student responses it seems that there is a new awareness of the need for WhatsApp to become a supplementary source of communication and support because of the pandemic.

The comment about WhatsApp as a tool to supplement formal communication structures at the university was in line with one of our intended purposes, namely, to communicate important messages, events and arrangements by the university during the pandemic – such as protocols and due dates. A study in Egypt by Sobaih, Hasanein and Abu Elnasr (2020) shows that Facebook and WhatsApp were the social media platforms most commonly used by staff and students to complement official communication channels.

The second sub-theme was reducing feelings of loneliness. Students said that the WhatsApp groups made them feel less isolated and alone, as in this example:

Did the purpose change since COVID-19? Yes, I often feel isolated. Especially during the last two weeks of a renewed lockdown, I was really struggling to sit down and work. The WhatsApp group just reminded me to get over myself, everyone is feeling the way I do and that I must just work – not feeling alone, therefore it really helped (P2).

This comment points to Maslow's identification of the need for connection and belonging to a group – confirmed by Madzalan *et al.* (2021). This need is more pertinent in times of crisis when students do not have the luxury of physical contact, cannot move around freely and might feel isolated. Social media such as WhatsApp can create a needed sense of connectedness and belonging.

6. Conclusion

This study was undertaken to report on postgraduate students' views on the use of WhatsApp groups as an online communication tool to support teaching and learning during the COVID-19 pandemic. The lockdown rules, isolation and social distancing caused by the pandemic have posed a threat to one of the most basic human needs, which is connection and a sense of belonging. The findings of the study indicate that the WhatsApp groups assisted students to communicate and connect with their fellow students and lecturers because the platform was immediate, fast and easy to use, and it created a sense of belonging. WhatsApp groups were also deemed suitable because of their affordability and the ease of sharing learning materials. However, WhatsApp groups also had disadvantages, such as deteriorating into a chat group and becoming a distraction. The pandemic had brought changes to the purpose of the WhatsApp groups for some participants: first, from being mainly a social networking group it became a more academic and professional group to supplement the official communication channels of the institution. The second major change was that it lessened feelings of loneliness and isolation, which is an important finding and a specific contribution to the body of knowledge.

Based on the findings, this study proposes that ODeL institutions of higher learning and lecturers in particular should consider using WhatsApp groups to support their students, specifically in times of crisis, as they can alleviate feelings of loneliness and isolation while creating connectedness and communities of learning. It is important, though, that the purpose of such WhatsApp groups be clearly stated to users and ground rules need to be provided to make WhatsApp groups meaningful and fulfil its purpose and prevent abuse.

Although we conducted this study with care, no study is without its limitations. One limitation of this study is that it involved a small sample of students who were studying modules in one Master's in Education programme. Furthermore, the feedback was not anonymous to the researchers, and the findings might have been different if we had used a platform with anonymous responses. However, we believe that the student responses were real and honest. This exploratory study should serve as a basis for more research on the possibilities and the use of social media platforms such as WhatsApp groups as a communication tool to support learning, in times of crises or otherwise.

References

- Agormedah, E. K., Henaku, E. A., Ayite, D. M. K., & Ansah, E. A. 2020. Online learning in higher education during COVID-19 pandemic: A case of Ghana. *Journal of Educational Technology & Online Learning*, 3(3): 183-210. <https://doi.org/10.31681/jetol.726441>
- Alsanie, S.I. 2015. Social media (Facebook, Twitter, WhatsApp) used, and its relationship with university students' contact with their families in Saudi Arabia. *Universal Journal of Psychology*, 3(3): 69-72. <https://doi.org/10.13189/ujp.2015.030302>
- Alubthane, F. & Alyoussef, I. 2021. Pre-service teachers' views about effective use of the WhatsApp application in online classrooms. *Turkish Online Journal of Educational Technology*, 20(1): 44-52.
- Annamalai, N. 2019. Using WhatsApp to extend learning in a blended classroom environment. *Teaching English with Technology*, 19(1): 3-20.
- Asmara, R. 2020. Teaching English in a virtual classroom using WhatsApp during COVID-19 pandemic. *Language and Education Journal*, 5(1):16-27. <https://doi.org/10.52237/lej.v5i1.152>
- Bouhnik, D., Dshen, M. & Gan, R. 2014. WhatsApp goes to school: Mobile instant messaging between teachers and students. *Journal of Information Technology Education: Research*, 13(1): 217-231. <https://doi.org/10.28945/2051>
- Braun, V. & Clarke, V. 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3: 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Chaka, C., Nkhobo, T. & Lephallala, M. 2020. Leveraging MoyaMA, WhatsApp and online discussion forums to support students at an open and distance elearning university. *Electronic Journal of E-learning*, 18(6): 494-515. <https://doi.org/10.34190/JEL.18.6.003>
- Church, K. & De Oliveira, R. 2013. What's up with WhatsApp? Comparing mobile instant messaging behaviors with traditional SMS. *Proceedings of the 15th international conference on human-computer interaction with mobile devices and services*. August, pp. 352-361. <https://doi.org/10.1145/2493190.2493225>
- Croft, N., Dalton, A. & Grant, M. 2010. Overcoming isolation in distance learning: Building a learning community through time and space. *Journal for Education in the Built Environment*, 5(1): 27-64. <https://doi.org/10.11120/jebe.2010.05010027>
- Deng, L. & Tavares, N.J. 2013. From Moodle to Facebook: Exploring students' motivation and experiences in online communities. *Computers & Education*, 68: 167-176. <https://doi.org/10.1016/j.compedu.2013.04.028>
- Downes, S. 2010. New technology supporting informal learning. *Journal of Emerging Technologies in Web Intelligence*, 2(1): 27-33. <https://doi.org/10.4304/jetwi.2.1.27-33>

- Downing, S.M. 2003. Validity: On the meaningful interpretation of assessment data. *Medical Education*, 37(9): 830-837. <https://doi.org/10.1046/j.1365-2923.2003.01594.x>
- Giordano, V., Koch, H.A., Mendes, C.H., Bergamin, A., De Souza, F.S. & Amaral, N.P. 2015. WhatsApp messenger is useful and reproducible in the assessment of tibial plateau fractures: Inter- and intra-observer agreement study. *International Journal of Medical Informatics*, 84(2): 141-148. <https://doi.org/10.1016/j.ijmedinf.2014.11.002>
- Goldie, J.G.S. 2016. Connectivism: A knowledge learning theory for the digital age? *Medical Teacher*, 38(10): 1064-1069. <https://doi.org/10.3109/0142159X.2016.1173661>
- Gomes, L.M., Guerra, H., Mendes, A. & Rego, I.E. 2015. Facebook vs Moodle: Surveying university students on the use of learning management systems to support learning activities outside the classroom. *10th Iberian Conference on Information Systems and Technologies (CISTI)*, pp. 1-4. <https://doi.org/10.1109/CISTI.2015.7170464>
- Güler, Ç. 2017. Use of WhatsApp in higher education: What's up with assessing peers anonymously? *Journal of Educational Computing Research*, 55(2): 272-289. <https://doi.org/10.1177/0735633116667359>
- Hagerty, S.L. & Williams, L.M. 2020. The impact of COVID-19 on mental health: The interactive roles of brain biotypes and human connection. *Brain, Behavior, & Immunity Health*, 5: 100078. <https://doi.org/10.1109/CISTI.2015.7170464>
- Kivunja, C. & Kuyini, A.B. 2017. Understanding and applying research paradigms in educational contexts. *International Journal of Higher Education*, 6(5): 26-41. <https://doi.org/10.5430/ijhe.v6n5p26>
- Kop, R. & Hill, A. 2008. Connectivism: Learning theory of the future or vestige of the past? *International Review of Research in Open and Distributed Learning*, 9(3): 1-13. <https://doi.org/10.19173/irrodl.v9i3.523>
- Lambton-Howard, D., Kiaer, J. & Kharrufa, A. 2020. 'Social media is their space': student and teacher use and perception of features of social media in language education. *Behaviour & Information Technology*, 40(16): 1700-1715. <https://doi.org/10.1080/0144929X.2020.1774653>
- Lieberman, M.D. 2013. *Social: Why our brains are wired to connect*. Oxford: OUP.
- Lincoln, Y.S. & Guba, E.G. 2000. Paradigmatic controversies, contradictions, and emerging confluences. In N.K. Denzin & Y.S. Lincoln (Eds.). *Handbook of qualitative research* (pp. 163-188) London: Sage.
- Maboe, K.A. 2017. Use of online interactive tools in an open distance learning context: Health Studies – students' perspective. *Health SA Gesondheid*, 22: 221-227. <https://doi.org/10.1016/j.hsag.2017.02.001>
- Madge, C., Breines, M.R., Dalu, M.T.B., Gunter, A., Mittelmeier, J., Prinsloo, P. & Raghuram, P. 2019. WhatsApp use among African international distance education (IDE) students: Transferring, translating and transforming educational experiences. *Learning, Media and Technology*, 44(3): 267-282. <https://doi.org/10.1080/17439884.2019.1628048>
- Madzalan, J., Hamdan, N., Pisol, M.I.M. & Madzalan, S.F. 2021. Basic needs in online teaching and learning: An outlook to adaptation in education. *Proceedings of the 4th International Conference on Education: "Innovative and Sustainable Education in Times of Challenges"*. Pattani, Thailand (Online) June 2021, pp. 70-77.

- Major, S., Sawan, L., Vognsen, J. & Jabre, M. 2020. COVID-19 pandemic prompts the development of a Web-OSCE using Zoom teleconferencing to resume medical students' clinical skills training at Weill Cornell Medicine-Qatar. *BMJ Simulation and Technology Enhanced Learning*, 6(6). doi: 10.1136/bmjstel-2020-000629
- Maphosa, V., Dube, B. & Jita, T. 2020. A UTAUT evaluation of WhatsApp as a tool for lecture delivery during the COVID-19 lockdown at a Zimbabwean university. *International Journal of Higher Education*, 9(5): 84-93. <https://doi.org/10.5430/ijhe.v9n5p84>
- Maslow, A.H. 1943. Preface to motivation theory. *Psychosomatic Medicine*, 5(1): 85-92. <https://doi.org/10.1097/00006842-194301000-00012>
- Maslow, A.H. 1962. Some basic propositions of a growth and self-actualisation psychology. In A.W. Combs (Ed.). *Perceiving, behaving, becoming: A new focus for education* (pp. 34-49). USA: National Education Association. <https://doi.org/10.1037/14325-000>
- Mishra, L., Gupta, T. & Shree, A. 2020. Online teaching-learning in higher education during lockdown period of COVID-19 pandemic. *International Journal of Educational Research Open*, 1: 100012. <https://doi.org/10.1016/j.ijedro.2020.100012>
- Mnkandla, E. & Minnaar, A. 2017. The use of social media in e-learning: A metasynthesis. *International Review of Research in Open and Distributed Learning*, 18(5): 227-248. <https://doi.org/10.19173/irrodl.v18i5.3014>
- Mpfungose, C.B. 2020. Is Moodle or WhatsApp the preferred e-learning platform at a South African university? First-year students' experiences. *Education and Information Technologies*, 25(2): 927-941. <https://doi.org/10.1007/s10639-019-10005-5>
- Nuuyoma, V., Mhlope, N.J. & Chihururu, L. 2020. The use of WhatsApp as an educational communication tool in higher education: Experiences of nursing students in Kavango East, Namibia. *International Journal of Higher Education*, 9(5): 105-114. <https://doi.org/10.5430/ijhe.v9n5p105>
- Peacock, S. & Cowan, J. 2019. Promoting a sense of belonging in online learning communities of inquiry at accredited courses. *Online Learning*, 23(2): 67-81. <https://doi.org/10.24059/olj.v23i2.1488>
- Sampath, H., Kalyani, S., Soohinda, G. & Dutta, S. 2017. Patterns, attitudes, and dependence toward WhatsApp among college students. *Journal of Mental Health and Human Behaviour*, 22:110-115.
- Siemens, G. 2005. Connectivism: A learning theory for the digital age. *International Journal of Instructional Technology and Distance Learning*, 2(1):3-10.
- Siemens, G. 2006. *Knowing knowledge*. USA: Lulu.com.
- So, S. 2016. Mobile instant messaging support for teaching and learning in higher education. *The Internet and Higher Education*, 31: 32-42. <https://doi.org/10.1016/j.iheduc.2016.06.001>
- Sobaih, A.E.E., Hasanein, A.M. & Abu Elnasr, A.E. 2020. Responses to COVID-19 in higher education: Social media usage for sustaining formal academic communication in developing countries. *Sustainability*, 12(16): 6520. <http://dx.doi.org/10.3390/su12166520>
- Statista. 2017. *Share of Facebook users worldwide who accessed Facebook via mobile from 2013 to 2018*. Available at <https://www.statista.com/statistics/380550/share-of-global-mobilefacebook-users/> [Accessed 5 March 2021]

Stone, S., Logan, A. & Unit, T.E. 2019. Developing guidelines for the use of WhatsApp as a back channel in higher education. *International Conference on Engaging Pedagogy (ICEP)*, University of Limerick, Ireland. 12-13 December.

Tang, Y. & Hew, K.F. 2017. Is mobile instant messaging (MIM) useful in education? Examining its technological, pedagogical, and social affordances. *Educational Research Review*, 21: 85-104. D <https://doi.org/10.1016/j.edurev.2017.05.001>

Thomas, M. & Gelan, A. 2018. Editorial: Special edition on language learning and learning analytics. *Computer Assisted Language Learning*, 31(3): 181-184. <https://doi.org/10.1080/09588221.2018.1447723>

Unisa. 2020. *ICT Acceptable usage policy*. Pretoria: University of South Africa.

Unisa. 2021. *Digital media guidelines*. Pretoria: University of South Africa.

Wikimedia Commons. 2019. *Maslows-Hierarchy-of-Needs-1.png*. Available at <https://commons.wikimedia.org/wiki/File:Maslows-Hierarchy-of-Needs-1.png> [Accessed 20 March 2021]

Yeboah, S.T., Horsu E.N. & Abdulai, A. 2014. Usage of WhatsApp and voice calls (phone calls): Preference of polytechnic students in Ghana. *Science Journal of Business and Management*, 2(4): 103-108. <https://doi.org/10.11648/j.sjbm.20140204.11>

Yin, R.K. 2013. Validity and generalisation in future case study evaluations. *Evaluation*, 19(3): 321–332. <https://doi.org/10.1177/1356389013497081>

Appendix A: Questionnaire on the use of WhatsApp as a communication tool to support teaching and learning

Good Day

At the beginning of the year, with your permission we have set up WhatsApp groups for all the modules in the programme. Your responses will assist in gaining more information in this field of research and in our planning for next year. The ultimate goal is to serve students in general, and specifically our Unisa students, in a better way.

Your information in this questionnaire will be treated anonymously and will be used for this research project. Your identity will not be revealed to anybody or in any document and all the principles of ethical research will be adhered to (Ref: 2020/08/12/90159772/19/AM).

Many thanks in advance.

| 1. Biographical information | | |
|--|---|--|
| 1.1 | Your name and surname | |
| 1.2 | Modules enrolled for | |
| 1.3 | Your current position at your institution | |
| 2. Questions related to the use of WhatsApp as a communication tool to support teaching and learning | | |
| 2.1 | How did the WhatsApp (WA) groups assist you with one or more of the following aspects: communication, connection and learning? | |
| | | |
| 2.2 | Did the purpose of WA groups change since the COVID-19 pandemic, and if so, how? | |
| | | |
| 2.3 | What do you think the advantages and disadvantages of WA groups are? | |
| | | |
| 2.4 | UNISA has a learning management system (myUnisa) and email address facilities and does not regard WA as an official communication tool. Is there any need for adding WA as a communication tool in the module? Please motivate. | |
| | | |
| 2.5 | Lastly, we will appreciate any recommendations for improving communication tools in this programme. | |
| | | |