

## THE WHATSAPP APPLICATION USE AS A SUPPORT SERVICE IN DISTANCE EDUCATION: A CASE ANALYSIS

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### ABSTRACT

This study aims to reveal the strengths and limitations of the WhatsApp application as a support service in distance education, conducted through a learning management system during the Covid-19 pandemic, and make suggestions on improving its use in this capacity. Despite the lack of readiness on the part of the students and the lack of sufficient knowledge regarding distance education during the pandemic, many universities had to revert to emergency remote teaching. This situation necessitated the intensive use of various support services for the students to get the most out of their emergency remote teaching. However, their lack of experience with distance education prevented them from using the support services offered by learning management systems. Due to the increasingly widespread use of mobile technologies, one of the support services used by course instructors became the WhatsApp application. The following research is a qualitative case study. The sample for the study was determined through purposive sampling. The data was analyzed using the content analysis method. Nvivo qualitative data analysis software was used to contribute to the detailed and versatile data analysis. The most important results of the study were that the application supported and strengthened distance learning by allowing instant communication, but that the absence of a moderator caused various limitations in this communication. In addition, it was concluded that incorporating natural language processing techniques into learning management systems and clearly stated rules by course instructors improved the use of such instant communication applications as a support service for distance education.

**Keywords:** Distance education, Emergency Remote Teaching, Whatsapp, support services, digital communication technologies, Covid-19.

### INTRODUCTION

Many universities have had to maintain their curriculum with emergency remote teaching (ERT) because education is interrupted within the scope of precautions taken all around the world during Covid-19 pandemic. ERT, outside the scope of distance education, is the activities that include distance education activities without preliminary preparation from institutions in order to continue basic education within the

framework of emergency precautions taken because of the rapid spread of the epidemic all over the world (Bozkurt, 2020). It has been needed to use support services intensively in ERT activities because learners have not enough readiness and knowledge on distance education.

The main objective of support services in distance education is to provide an opportunity of individual study to learners or of independent study among distance learners in the absence of face-to-face learning (Paier, 2007). It is proven by many studies that the success of attracting, serving, and keeping learners in open and distance education depends on very effective support services. On the other hand, ease of use, usefulness, and convenience are the features that have a positive effect on learners' desire to learn with technological devices (Pilcher, 2010). In this context, it is an inevitable fact that the creation of educational and technical support opportunities in open and distance learning environments is effective on the success of learners (Yuksekdag, 2017). Further, Kenny (2002) states that technical support is significant for learners who experience feelings of anxiety, fear, and inhibition in distance learning environments due to having less computer experience. Also, Kenny (2002) suggests that the learners who have no experience in distance learning need to be continually supported instructively in terms of learning activities as well.

It is mentioned in the studies on support services that insufficiency or absence of instructors, academic planners and programmers, and technical assistants who provide technical support and serve cause anxiety in learners and complicate the learning process (Yuksekdag, 2017). Learners take charge of their own learning more in open and distance education since they have more freedom and opportunities. Nevertheless, each learner may need assistance at some point because he is not able to succeed, and learners can recede from the system when they cannot get the necessary assistance. In that case, it is inevitable that learners leave the system if the learners cannot be contacted, and/or help and guidance demands cannot be provided (Zawacki, 2004). At this point, it can be concluded that the absence of educational and technical support affects learners' motivation for computer technology use.

Distance education support services that have a great deal of importance in regular processes have been necessitated a lot in applications in ERT specifically during the Covid-19 pandemic. Lots of learning management systems which include different support services have been activated in ERT activities carried out during pandemic; however, the fact that the learners did not have previous learning experience in distance education prevented them from using the support services of the learning management systems offered to them in order to continue their teaching activities. That's why instructors, too, have needed to develop various support services. Specifically, the frequency of mobile technology use and learners' usage habits regarding these technologies have caused unplanned usage of mobile applications as support services. One of the support services used by instructors during this period has been the WhatsApp application due to its usage intensity. WhatsApp is a cross-platform instant textual, voice, and visual messaging and calling application developed for smartphones (Manan, 2017). Its unplanned use has also brought some limitations as it also causes the sharing of personal data such as phone number, status and location features although it has often solved the problems in ERT implementations.

Despite the fact that there are plenty of studies on the use of the WhatsApp application in education, there is no detailed research based on the use of it as a support service in distance education. The limited number of studies on the subject adds unique value to the study and makes it important to investigate the use of the application as a support service during the pandemic even though it is used by many instructors within the scope of ERT during the Covid-19 pandemic.

Moreover, the value of different applications that offer simultaneous instant support to learners is understood considering that the digital transformation realized within the framework of distance education will continue during the Covid-19 pandemic, which is called the new normal. In this context, it is expected to contribute to the subject field with analyzing use of the application as a support service, but also to learning with increasing the interaction degree between instructors and learners conducting analysis of a different application provided simultaneous support.

The subject matter of this study is to reveal strengths and limitations of the WhatsApp application use as a support service in distance education. The scope of this study is to investigate the dynamics of the WhatsApp application use as a support service in ERT applications during the Covid-19 global pandemic in a Higher Education Institution, and to make suggestions for the development of its use.

## PURPOSE OF THE STUDY

In this research, it is targeted to reveal the strengths and limitations of the WhatsApp application use as a support service in the classes via a learning management system and to make suggestions in order to improve the use of it as a support service in the ERT during Covid-19 pandemic.

To reach this aim, the following research questions are addressed:

1. In which subjects has the WhatsApp application been used as a support service in ERT activities carried out during the Covid-19 pandemic?
2. How has the WhatsApp application been used as a support service in ERT activities carried out during Covid-19 pandemic?
3. What limitations have been encountered in using the WhatsApp application as a support service in ERT activities carried out during the Covid-19 pandemic?
4. What kinds of strengths have appeared in using the WhatsApp application as a support service in ERT activities carried out during the Covid-19 pandemic?
5. What changes can be made to improve the use of the WhatsApp application as a support service in ERT activities carried out during Covid-19 pandemic?

In order to reach the aim of the study, firstly, support services have been examined in detail in the literature in order to support the revealing of the existing situation.

## LITERATURE REVIEW

### Support Services

In general, support services have an important role in educational institutions, but also, they consist of one of the unavoidable and significant components in distance education, and are defined as creating learning communities and the whole of services given in order to provide maintenance of them (Kumtepe et. al., 2019, p.42). Support services which refer to many activities assisting to achieve high quality in education include the creation of administrative processes and suitable conditions in addition to pedagogical support (Moser, 2007, p. 23- 24), and except access to information on any subject, non-technical support types such as technical support, carrier assistance, and emotional support (Porter, 2004, p. 223), or fundamental academic (definition, explanation, evaluation, improvement track, skill development, discovery, enrichment) and non-academic (consultant, evaluation in non-academic areas, advocacy etc.) categories towards learners' needs (Simpson, 2002, p. 6- 7; Mutlu, Beyaz & Iseri, 2004, p.1).

In terms of groups that support systems serve, there are two main categories: a) instructors and b) distance learners (Kumtepe et. al., 2019, p. 44). Instructors' need for support services is connected to their professional development and related to the expectation of changing and improving different areas such as technology, curriculum, and teaching methods they have been taught and they use currently (Burns, 2011, p. 198). The most significant expected characteristics of an instructor in distance learning are self-confidence, efficient use of equipment, high level of interaction with learners and media use. By this way, with the support offered to learners (Sherry, 1995, p. 343), instructors are considered as the critical component regarding learners' academic success (Roddy et. al., 2017). Learner support expresses the whole activities and elements designed for helping cognitive, affective, and systematic fields towards a learner or a group of learners in education and covers information and management systems with guidance and counseling (Brindley, Walti, & Zawacki-Ritcher, 2003, p. 205).

### The Importance and Function of Support Services in Distance Learning

Support services in distance learning provide important opportunities to be able to solve problems encountered in line with the current needs of instructors and institutions and to minimize limitations. The studies show that the factors affecting the increase in the need for support systems in distance learning consist of a) being learners away each other (Ludwig-Harman& Dunlap, 2003, p.1), b) learners' responsibility of managing their own learning, c) different competence levels of stakeholders in the system (Kumtepe et. al., 2019, p.

42), d) decreasing interaction because flexibility of time and place, which is the strongest side of distance learning at the same time, is fragile, e) low motivation caused by deficiency of guidance and management that may arise from, and f) negative effects on general quality of classes (Abrami & Bures, 1996; Moore, 2016, p. 405; Dhawan, 2020, p. 14- 15). To add, that ability and self-confidence level of each learner differs and insufficiency of customization of learning process might affect teaching process and create imbalance in learning environment (Dhawan, 2020, p. 14- 15).

Use of support services has qualifications of enhancing the quality of academic career and individual learning skills, and strengthening bonds with institutions, so it influences learners' success level positively (Ludwig-Harman & Dunlap, 2003, p. 11). From this point, support systems in distance education are needed in terms of ensuring that objectives of education are realized by learners, having the improving effect on learning experiences of learners, offering the support they need to inadequate learners, and providing counseling services to learners who have individual difficulties (Picciano, 2001, cited in Durak, 2007, p.162). Besides these, support systems have a function of providing support in personal issues such as empowering learners and embracing differences in addition to academic issues (Gunawerdana & LaPointe Deborah, 2007, p. 603). As indicated, support services have positive influences on dealing with technical difficulties encountered by users in distance education because academic, pedagogical and psychological needs, and also technical needs are at the forefront of distance education (Favalea et. al. 2020; Dhawan, 2020).

### **Covid-19 and Support Services**

With the worldwide Covid-19 pandemic, closure and restriction conditions have made it necessary to carry out education that previously conducted face-to-face in the virtual environment all over the world and to switch to ERT. ERT refers to the compulsory switch to distance education completely of the classes designed as face-to-face, mixed or blended during the crisis, opposed to planned experiences at the beginning distantly (Hodges, Moore, Lockee, Trust & Bond, 2020). With Covid-19 crisis, education activities have been needed to switch urgently to learning management systems, real-time/ recorded web conferences or the other Internet-based tools and many learners, instructors and institutions have had to switch distance learning without enough knowledge about current technology, software, services and distance education relating with learning virtually (Ahadi, Bower, Singh & Garrett, 2021, p. 30).

As there is a necessity of support services in every field during natural disasters or crisis periods except routine situations, support services have been one of the prior necessities in also ERT activities. During this period, support and guidance services have carried a vital role in switching learners from the traditional classroom environment to self-controlled learning. Learners have needed in many different issues while switching (Sherry, 1995, p. 52). First, the emergence of a health problem that has no solution for everyone involved in every stage of education and the sudden curfews applied all over the world have created negative psychological effects on learners and instructors. Besides, a pedagogical anxiety has emerged on both learners and instructors and administrators of institutions due to the absence of readiness because learners have had no information about how they continue education and institutions have faced this crisis suddenly. Next, academic worries have appeared with initiating ERT activities. Particularly, the tools which assist to access education activities, to follow learning improvement, and to receive feedback on time have become essential. At this point, it has been revealed that having access to distance education tools, and having experience in technology literacy and technology use affect the levels of success and the learners who experience distance education for the first time have struggled rather than experienced learners (Hannafin et. al., 2007, p. 125). Academic, psychological, pedagogical, and technical support has become a must in ERT systems carried out to continue education activities in Covid-19 crisis for these reasons. Even though there are numberless studies based on support services in the discipline of distance learning and many learning management systems include support services integrated themselves, these support services have not been used effectively because of learners' and instructors' technological limitations or lack of readiness. Smith (2005) indicates that there are three main goals related to support services in distance learning. These are 1) determining learners' needs 2) providing services at the time when learners need, not at the time determined by institutions 3) making distance support services as effective as face-to-face support services at least. If these three goals cannot be accomplished, it does not matter how support services are technically well-equipped. In this perspective, different support services use has emerged

because needs analysis is inconvenient to conduct in ERT activities created in Covid-19 pandemic owing to time limit. One of those is the WhatsApp application, an instant messaging application, which provides communication with the feature of synchronous and asynchronous use.

### **WhatsApp Use as a Support Service in Distance Education**

An efficient communication process must be run for support services to be successful in crisis periods. Thus, to scrutinize key trends in support services, communication and technology are the basic fields that determine the direction of trends. Creating a distance learning community for a successful distance learning experience and the importance of sustainability of this community, in other words, requires a communication process for each education process. Integration of digital communication technologies to distance education supplies communication and bonding ways developed with digital technologies (Porter, 2004, p. 162; Veytia-Bucheli, Gomez-Galan & Vergara, 2020, p. 2- 3).

Development of digital technologies and especially smartphones and usage intensity have advanced interaction forms in synchronous and asynchronous ways in formal and informal areas. As one of the applications included in these developments is instant messaging applications, the WhatsApp application is heavily used (Veytia-Bucheli, Gomez-Galan & Vergara, 2020). It is defined that WhatsApp is a smartphone instant messaging application that enables to be sent different formats of messages such as image, voice, and picture in various platforms worked with the Internet data (Wijaya, 2018, p. 47). It is indicated that the reasons for general use are its low cost, unlimited message sending, convenience for informal communication, need of adaptation to the others because of its popularity, its social side, convenience for mutual dialogs, suitability of talk with a community, allowance of synchronous, dynamic and fluent messaging, and provision of confidence that messages reach the intended person (Church & de Oliveira, 2013, p. 357- 340).

Applications for mobile devices developed with digital communication technologies take a place in trends in the field of support services of open and distance education institutions (Durak, 2007, p. 167). As one of these applications, WhatsApp has been adopted by the whole world and has been preferred as an application providing ease of use in ERT activities carried out in the Covid-19 period, as well as. In case of use in education, WhatsApp provides academic information sharing between learners and instructors with its characteristics of allowance of mutual and fluent talk, creation of sense of belonging, accessible and low cost, easily use for communication purpose (Ujakpa, Heulkelman, Lazarus, Neiss & Rukanda, 2018, p.2). Additionally, instant messaging facilitates learning and supports problem solving and it solves learning difficulties linked to learning content, information sharing etc. delivered via learning process or WhatsApp simultaneously (Amry, 2014, p. 132).

In addition to use in education, WhatsApp is also regarded as an important support service for meeting educational needs of university-level learners and it is concluded that WhatsApp is found as preferable because it is a mobile platform used in light and portable tools by learners, it supplies possibility of reachable and easy use, and also it includes both social and academic messages (Reeves, Alkharaf & Amasha, 2019, p. 400). According to results of the study carried out in 2018 (Wijaya, p. 47), it is found out that WhatsApp use for communication and learning support increases interaction and intimacy between learner-learner and learner-instructor. On the other hand, it is stated that the use of the feature of creating a group on the WhatsApp application in the field of education provides interaction among all learners. Results of another study conducted in 2018 support the result that the WhatsApp application increases interaction between learners-learners and learners-instructors and they demonstrate that learners' level of interest rises when humor is included to messages and it plays a very significant role in education in the case of absence of a structured learning management system (Ujakpa, Heulkman, Lazarus, Neiss & Rukanda, 2018, p. 5). Also, it stands out as an appropriate tool since learners in distance learning psychologically need to know that someone cares about them and that they can help them during the class (Porter, 2004, p. 162).

The WhatsApp application has been frequently used as a support system in distance education by many learners and instructors (Al Fadda, Osman & Metwally, 2020, p. 1024). It is appropriate for providing coordination by learners, opportunities of document sharing with groups, educational organization and information sharing (Reeves, Alkharaf & Amasha, 2019, p. 400). In the study aiming to investigate the WhatsApp effect of improving learning and teaching in Covid-19 restrictions, it is revealed that learners have positive thoughts on

using WhatsApp as a support system with the other distance tools, that the application is efficient to increase the success of teaching and learning process, that it is needed to be encouraged as a supportive tool (Al Fadda, Osman & Metwally, 2020, p. 1024). A study carried out before Covid-19 pandemic (Susilo, 2014) concludes that WhatsApp has high potential in use as complementary of distance education because it offers pedagogical, social, and technological opportunities that enable to post announcements, to share ideas and sources, and to implement discussions distantly and this situation has been experienced during Covid-19. Nevertheless, it has been experienced that it includes diverse limitations in addition to its benefits.

In this context, it is important to make suggestions for in-depth research and development of the use of WhatsApp as a support service in distance education.

## **METHOD**

This study is a qualitative designed case study for its suitability of the research aim. Case study is defined as an empirical research method (1) that studies a current phenomenon within the framework of its real-life context, (2) that the boundaries between phenomenon and its content are not clearly defined, (3) that is used where multiple sources of evidence and data are available (Yin, 2003). In a more summative definition, case study aims to analyze one or a few cases within its boundaries holistically. In general, four case study designs are accepted. They are (1) holistic single-case design, (2) embedded single-case design, (3) holistic multiple-case design, and (4) embedded multiple-case design. In this study, holistic single-case design is selected. This design can be used in the existence of three cases:

1. Confirming or falsifying a theory,
2. Studying idiosyncratic situations that do not fit well with general standards,
3. Study of previously unstudied cases.

Examining such situations is significant in terms of exploring a subject that has not been studied before, creating a source for future studies and being a guide.

Since the phenomenon of use of instant messaging applications as a support service in distance education which is the subject of this research is needed to examine within the framework of its real content and real-life context and is an idiosyncratic implementation that does not fit well with general standards, the research is determined as a case study in holistic single-case design. The limitation of the research is that this research is designed with holistic single-case design and it is framed by examining the messages of an instant messaging application that serves a specific purpose in only a part of education given with a single group. However, it is expected that the research contributes to the literature in terms of being source research carried out later for support services with larger groups for a longer time because the messages shared in the application are numerically high. Further, in order to increase the validity and reliability of the research, the method of data diversity with sharing the basic results with the participants selected from the sample group taking part in the research and obtaining their opinions, and of seeking opinions in the literature of different researchers studying in this field while interpreting the findings (Merriam, 1988) is used.

## **Participants**

Sampling of the study is selected through purposive sampling. From a Higher Education Institution, Schools of Foreign Languages, preparatory class education has a considerably higher rate compared to semester department classes in terms of class hours. Moreover, to think that learners gain the right to pass their departments with a single language proficiency exam of which they are responsible at the end of the term or that they repeat preparatory class education, it is a significant factor for learners to receive support in both face-to-face and distance education especially before, during and after the proficiency exam for their success and managing the process. For this, the research sampling consists of the messages shared in the WhatsApp group called "Technical Support" before the proficiency exam of all learners in preparatory class who continue their education in School of Foreign Languages at a foundation higher education institution and of 4 instructors and 4 learners who send messages most. The ethical approvals required for the examination of the messages in terms of the use of personal data are obtained before the study.

## Data Collection and Analysis

Data which are analyzed through content analysis are collected in two phases. In the first phase of data collection process, qualitative data are obtained by examining descriptively the messages shared in the WhatsApp group in terms of group active and uptime, messages in the group, the number of learners and instructors, and also reply time to messages. Also, the first part of qualitative data is collected by decoding the messages shared in the group and dividing into the categories of class support, technical support, informative messages, in-group communication, and simultaneous call. In the second phase of data collection, in order to increase the validity and reliability of the findings, semi-structured interviews are conducted online with two learners and two instructors who share most. Semi-structured interview questions are prepared based on the purpose of the study, the research questions, and information obtained from the literature and then the questions are checked by two experts in this field.

It is aimed to conduct in-depth and multi-directional analysis of all qualitative data in the data pool by the means of Nvivo 12 Qualitative Data Analysis Software, and to increase the validity and reliability of the study with the use of the software.

Data analysis is carried out through content analysis. The main objective of content analysis is to reach the concepts and relations that can explain data collected. For this aim, it is required to conceptualize data collected first and then to organize them logically according to these concepts emerged (Yildirim, Simsek, 2013, p. 242). So, the basic function in content analysis is to bring similar data together within the framework of definite concepts and themes and to organize and interpret them intelligibly (Strauss, Corbin, 1990).

## FINDINGS

### Findings on Descriptive Data

Firstly, descriptive analysis of the messages shared in the WhatsApp group is conducted to analyze the data obtained from content analysis in a multi-directional and in-depth way. In addition, descriptive analysis of the messages is also conducted to interpret data determining the general framework of the instant messaging group, and to increase the validity and reliability of the study. To do this, the messages are examined in terms of group active and uptime, messages in the group, the number of learners, group administrators, and instructors, and reply time to messages.

Table 1. Descriptive data

| Group Usage Time                   | Number of Learners | Number of Administrators | Number of Instructors | Number of Messages   | Reply Time                  |
|------------------------------------|--------------------|--------------------------|-----------------------|--|-----------------------------|
| 22 Days<br>(May 20- June 12, 2020) | 53                 | 2                        | 6                     | 2063<br>(1148 learners' messages,<br>915 administrators' messages) | Average 1 minute 20 seconds |

*\*These messages include voicemails, visual posts, documents sent by instructors. The messages of joining and leaving the group are not added to the number.*

The group for technical support and instant communication during preparatory class proficiency exam of the higher education institution which the study is carried out was opened on May 20, 2020 when is the starting date of "Proficiency Mockup Exams" and was closed June 12, 2020 when the results of proficiency exam announced. There are seven instructors in total who teach in preparatory classes and in charge of School of Foreign Languages administration. Two of the instructors are also WhatsApp group administrators. These two WhatsApp group administrators interact mostly with the 53 learners in the group. The administrator of a School of Foreign Languages, who is also a group administrator, gives information and the other instructor provides technical communication. Other instructors, who are invigilators in the exam, only make learner calls during the speaking skills exam taken simultaneously and do not communicate learners one-to-one.

2063 messages are shared in total between these dates in the WhatsApp group. In this context, 915 of the messages are sent for information by invigilators and administration during the examination. These messages include files related to the exam such as voicemails, visual posts and exam rules. In this way, learners were able to reach technical and academic support simultaneously that they needed before, during and after the exam. 1143 messages are shared by the learners during group uptime. Sharing times of the WhatsApp group messages are especially concentrated during the exam. The average reply time to the group messages is 1 minute 20 seconds. To consider, the shortening of the reply time becomes an important finding, especially when it is regarded that the learners who log in to the learning management system, where distance education is taken, experience technical problems such as connection problems, and cannot simultaneously benefit from the support services on the learning management system. The findings on the contents of messages are scrutinized in detail in content analysis.

### Findings on the Contents of Messages

Content analysis is carried out for the messages described numerically above via Nvivo 12 Qualitative Data Analysis Software. The use of the software supports the validity and reliability of the study providing multi-directional and in-depth analysis. First, data are coded with the help of the software, themes are emerged, codes and themes are organized, the findings are defined and interpreted. There are five main categories in the result of thematic coding of totally 2043 messages. These categories are conceptualized as followings:

1. Academic support,
2. Technical support,
3. Informative messages,
4. In-group communication,
5. Simultaneous call

Table 2 shows the numerical data on these main categories.

**Table 2.** The number of messages based on categories

| Categories                    | Academic Support | Technical Support | Informative Messages | In-group Communication | Simultaneous Call |
|-------------------------------|------------------|-------------------|----------------------|------------------------|-------------------|
| <b>The number of messages</b> | 95               | 828               | 510                  | 353                    | 257               |

As stated in the literature section, WhatsApp provides group messaging and file sharing among group members such as text, voice recordings, still images, GIFs, different document types such as Word, Excel, PowerPoint, PDF, and videos in different codecs. The WhatsApp platform can be used by mobile devices and desktop computers so that it allows groups members to share instant media and have feedback simultaneously. Therefore, in ERT WhatsApp is a strong support tool to discuss any technical problems such as connection issues or etc. while other members of the group can immediately find a solution and share in a short period of time. This allows online learning activities to be held more easily.

In ERT the interaction between learners, instructors, and professionals responsible for Learning Management System are crucial since the learning environments carries most of the information between learners and the instructors. In this context, the fast response to the learners and instructors for technical support has important role on the success of the learning environment. WhatsApp allows users to share documents and multimedia such as photos and videos that disambiguate the technical issues. For instance, instead of sending text messages on the LMS or emailing the technical support team, any participant can immediately send a screenshot or a photo of the technical issue they are facing. This demystifies the issue investigation by the support team.

The findings of this research also showed us that, Learners used the group when they mostly needed technical support in line with the purpose of the group while they use WhatsApp as a support service. Administrators and instructors communicated in the group for responding to demands of both technical and academic



support and informing learners. Furthermore, it is detected that voicemails instead of text messages are used according to the urgency of the problems from learners and it is drawn attention that in this way, interaction between learners, administrators and instructors' increases. Moreover, it is found that sharing images constantly for both technical issues from learners and informative messages benefits to disappear the ambiguity caused by textual communication when explaining a technical problem or providing guidance on solving a problem.

Thus, these data prove the argument in the literature that 'WhatsApp provides academic information sharing between learners and instructors with its characteristics of allowance of mutual and fluent talk, creation of sense of belonging, accessible and low cost, easily use for communication purpose (Ujakpa, Heulkelman, Lazarus, Neiss & Rukanda, 2018, p. 2)' and that 'instant messaging facilitates learning and supports problem solving and it solves learning difficulties linked to learning content, information sharing etc. delivered via learning process or WhatsApp in a synchronous/ asynchronous way (Amry, 2014, p. 132).'

Additionally, it is indicated that some learners use the group for academic support; however, group administrators lead the students to the related group directly with the messages reminding the group's purpose. Similarly, it is detected that learners communicate among themselves within the group and in this way, administrators also obtain information about learners' psychological status and their motivation for the exam, in this respect, this in-group communication supplies advantages for instructors. At this point, the fact that it stands out as an appropriate tool since learners in distance learning psychologically need to know that someone cares about them and that they can help them during the course (Porter, 2004, p. 162) advances the meaning of this finding. Group administrators are involved in communication during in-group communication mentioned before when learners use informal language while communicating and they remind the group's purpose to learners.

In contrary to this, using WhatsApp as a support tool for the LMS in emergency online teaching status can also have limitations. The learners and instructors might not use the WhatsApp for individual reasons and can be outcast from the community in the online learning environment by this means. In addition to this there could be privacy issues in the WhatsApp group unseen by the group creators. The messages and contents can easily be carried out of the group and shared with the third party, or anybody can be joining the group by a mistake. WhatsApp mainly provides informal communication between users; therefore, language and the attitude of the group members can lacerate others in the group. The media and text shared in the group can discriminate against anybody. Our findings in this research didn't show any discrimination issues or negative comments against anybody.

We found out that, the WhatsApp group in this study is also used as the 'waiting room' for learners during the simultaneous examination of speaking skills and invigilators involve learners in the exam with the method of simultaneous call from the group. In this way, it is found that learners and invigilators gain an advantage in terms of time. All these data support foresights that 'it is appropriate for providing coordination by learners, opportunities of document sharing with groups, educational organization and information sharing (Reeves, Alkharaf & Amasha, 2019, p. 400). in the previous studies based on the WhatsApp application use as a support service in distance education.

### **Findings on Semi-Structured Interviews**

In order to increase the validity and reliability of the research, data is diversified by sharing the basic results with the participants selected from the sample group taking part in the research and obtaining their opinions. To achieve it, semi-structured interviews are conducted with four learners who share most in the group examined and four instructors who are group administrators. In the interviews, the research sub-questions are asked. Data obtained from these interviews are analyzed through content analysis by means of Nvivo 12 Qualitative Data Analysis Software. For analyze the data of interviews, as in the part of "content of the message", data are coded with the help of the software, themes are emerged, codes and themes are organized and the findings are defined and interpreted. There are six main categories in the result of thematic coding of interviews. These categories are conceptualized as followings:

1. Synchronism,
2. Technical support,
3. Informative,
4. Count among/group consciousness,
5. Continuity,
6. Irrelevant speech/flippant

The findings gathered analyzing the data collected from the interviews show compatibility with the findings in the analysis of the contents of the messages. Learners especially emphasized that the application provides support in eliminating the feeling of loneliness that arises in distance education through its continuity. Some of the learners explain that with the sentences.

*Learner 1: Taking an exam alone at home by the computer is very boring and unsettling. Being able to communicate constantly with the WhatsApp, which I am used to talking to my friends with made me feel more comfortable. Learner 4 also shared the same opinion: Being able to ask any questions about the course content and the examinations lowered my level of stress of course... I felt that I was together with my schoolmates like in the classroom when I talked over WhatsApp group*

And the discourses of the interviewed instructors also support this judgment.

*Instructor 1: In the LMS, learners often have difficulty participating in discussions or avoid asking questions individually, while being more comfortable in conversations over Whatsapp. And they can unite with their friends on the issues they agree with. In this way, we could see their general comments more easily on the education.*

*Instructor 3: Using WhatsApp group motivated the learners and increased their social presence on the LMS. Knowing that other classmates are on a conversation on the WhatsApp group, learners shared their comments on different issues more easily and freely. Instructor 2 also emphasized that having WhatsApp as an easy-accessible tool for communicating with students have eased their job: "The application was a fast, simple and easily accessible tool for us and our students. Because we all were not familiar with distance education, we needed to communicate easily and sometimes spontaneously. That's why speed and simplicity was significant in our situation."*

In all meetings it was emphasized that, the importance of being able to receive simultaneous support for technical problems, which is the most frequently encountered problem. Likewise, it is mentioned that the sending and receiving instant informative messages simultaneously supports the process. Learner 2 explained it as follows; *"It was reassuring to know that I could get information on all subject simultaneously and to know that if there was a problem in the LMS system, I would instantly learn from WhatsApp."* Instructor 4 underlined that the WhatsApp group was almost about technical issues, and it maintained instant support for students: *"The application has been used specifically for technical issues as a support service. Because the concept of distance education was new for both students and instructors, and the system was not fully ready for education, it was necessary to provide instant support to students. So, the application assisted students and instructors for mostly technical issues."*

Learner 2 stated that continuity of information flow on the WhatsApp support group led more success in his/her studies in the School of Foreign Languages: *"I had all the information I needed about the courses I took and exams from the WhatsApp group, the information flow was continuous so besides technical issues I got information about other issues even the COVID restrictions at the university..."*. Learner 4: *"There was an information flow on the group that I followed for exams preparation and course content. If there was a technical issue on the LMS somebody was sharing it and therefore I knew that that was not only me who couldn't join the classes because of technical difficulties..."*

On the other hand, the benefits of WhatsApp in the ensuring continuity in the communication between learners and instructors have been mentioned very often. At the same time some disadvantages of continuity and simultaneity stand out from the answers given.

Learner 2: *“We could reach our instructors whenever we wanted, we could know whether they received our message or not. In this way we could get answers to our questions faster.”*

Instructor 3: *Learners can constantly share their thoughts, questions, and problems, this allows us to have information about their motivation. But sometimes it can happen in the conversations that don't follow the rules of netiket or irrelevant conversations may take place. This can cause different problems. Instructor 4 also agreed about some unnecessary topics and it was hard to have control on this matter: “Firstly, it was hard to control students' speech in the WhatsApp group. Sometimes students talked each others about irrelevant topics apart from technical issues. Also, we had to share personal numbers with the students before the institution gave a mobile phone to the unit. So, it allowed students to have our numbers and reach us whenever they wanted.” Instructor 1 had a opinion for overcoming this is issue: “... The feature of blocking students' messages can be used sometimes to manage talk in Whatsapp...”*

The group administrators agree with these opinions, and they draw attention to the necessity of existing a moderator in the group, especially because of informal language of communication that can occur, and it is beneficial to explain group rules precisely and clearly beforehand if the application is used as a support service.

In this respect qualitative data also tells us the reasons why WhatsApp is preferred for general use are, its low cost, unlimited message sending, convenience for informal communication, need of adaptation to the others because of its popularity, its social side, convenience for mutual dialogs, suitability of talk with a community, allowance of synchronous, dynamic and fluent messaging, and provision of confidence that messages reach the intended person (Church & de Oliveira, 2013, p. 357- 340) and it is interpreted that these components mentioned above are also valid for WhatsApp use in distance education. On the other hand, the necessity of formality insistence in the learning environment is among the prominent findings.

## CONCLUSION

Within the framework of the findings obtained as the result of the research, it is concluded that the WhatsApp application as a support tool for LMS, strengthens learning during ERT because it allows instant communication, and that it increases the motivation of the learners for learning because they can receive continuous support. It is found out that when learners get support through a system that they are familiar with, learners' commitment to learning materials increases due to intense use of support in terms of frequency of use. Nevertheless, the lack of a moderator in the group during the use of instant messaging applications as a support system causes the group deviate from the aim, which emerges as a limitation. In addition, the use of informal language in communication shows itself as a different limitation due to the learners' habits of use and the feeling that they are not in a formal support system. Another limitation of the use of instant messaging applications as a support system is that learners have access to learning materials by means of learning management systems, but they have to switch to a different environment for the instant messaging application.

While integration of WhatsApp, an instant messaging application, into learning management systems provides an opportunity to use the application in the same environment simultaneously, it is able to support the formal nature of the learning environment while using the application. In this way, it allows to use the rules prepared for learning management systems at the same time for communication language in the application. As for the implementation of these rules and the development of support services, it is concluded that natural language processing techniques which are more difficult to be integrated into instant messaging applications in a customized way but can be integrated into learning management systems and presence of a digital moderator in the system can improve the use of instant communication applications as a support service in distance education.

Considering that the digital transformation within the framework of distance education will continue during the Covid-19 pandemic in the so-called new normal process, the value of different applications that can offer instant simultaneous support to learners is noticed. Beside the analysis of the application use as a support service contributes to the literature, it is stated that analyzing a different application that can offer support simultaneously contributes to learning by increasing the level of interaction between learners and teachers. It is recommended for future studies to research strengths and limitations of the instant messaging applications in distance education by integrating instant messaging applications supported with natural language processing techniques into learning management systems.

The research showed that integrating common instant message applications may result increase in the motivation of the learners and helps reducing anxiety about online exams and social presence of the learners on a e-learning environment. Further empirical studies with an instant messages service embedded LMS or e-learning environment will be useful to figure out learner support systems efficiency and contribution to e-learning in the future.

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## REFERENCES

- Abrami, P. C., & Bures, E. M. (1996). Computer-supported Collaborative Learning and Distance Education. *American Journal of Distance Education* , 10 (2), 37-42.
- Ahadi, A., Bower , M., Singh, A., & Garrett, M. (2021). Online Professional Learning in Response to COVID-19—Towards Robust Evaluation. *Future Internet* , 13-56.
- Al Fadda, H., Osman, R., & Metwally, A. M. (2020). Using Whatsapp In Coordination With Zoom And Microsoft Teams To Enhance Online Learning During Covid -19 Lockdown. *Revista Argentina de Clinica Psicológica* , 1024-1035.
- Amry, A. B. (2014). The impact of whatsapp mobile social learning on the achievement and attitudes of female students compared with face to face learning in the classroom. *European Scientific Journal*, 14 (22), 116-136.
- Boz Yuksekdog, B. (2017). Acik ve uzaktan ogrenmede destek hizmetleri (editore mektup). *AUAd*, 3(3), 4-8.
- Bozkurt, A. (2020). Koronavirus (Covid-19) pandemi sureci ve pandemi sonrası dünyada egitime yönelik degerlendirmeler: Yeni normal ve yeni eğitim paradigması. *Acikogretim Uygulamaları ve Arastirmaları Dergisi*, 6(3), 112-142.
- Burns, M. (2011). *Distance Education for Teacher Training: Modes, Models and Methods*. Washington, DC: Education Development Center, Inc.
- Brindley, C. Walti, & O. Zawacki-Richter, 2003. (Eds.), *Learner support in open, distance and online learning environments* (pp. 205-217). Oldenburg: Bis, Bibliotheks- und Informationssystem der Universität Oldenburg. <http://www.c3l.unioldenburg.de/cde/support/fa04/Vol.%209%20chapters/Zawacki-Richter.pdf>.
- Church, K., & de Oliveira, R. (2013). What's up with WhatsApp? Comparing Mobile Instant Messaging Behaviors with Traditional SMS. *MobileHCI*, (s. 352-361). Munich.
- Dhawan, S. (2020). Online Learning: A Panacea in the Time of COVID-19 Crisis. *Journal of Educational Technology Systems* , 49 (1), 5-22.
- Durak, G. (2007). Uzaktan Egitimde Destek Hizmetlerine Genel Bakis: Sorunlar ve Egilimler. *Acik ve Uzaktan Ogrenme Dergisi AUad* , 3 (4), 160-173.
- Favalea, T., Soroa, F., Trevisan, M., Dragob, I., & Melliaa, M. (2020). Campus Traffic and e-Learning During COVID-19 Pandemic. *Computer Networks* , 176.
- Gunawerdana , C. N., & LaPointe Deborah. (2007). Cultural Dynamics of Online Learning. M. G. Moore (Du.) icinde, *Handbook of Distance Education* (s. 593-608). England, London: Lawrence Erlbaum Associates.

- Hartley, J. (2004). Case study research. In Catherine Cassell & Gillian Symon (Eds.), *Essential guide to qualitative methods in organizational research* (pp.323-333). London: Sage.
- Hannafin, M. J., Hill, J. R., Song, L., & West, R. E. (2007). Cognitive Perspectives on Technology- Enhanced Distance Learning Environments. *Handbook of Distance Education* (s. 123-136). London, England: Lawrence Elbaum Associates, Publishers.
- Hodges, C. B., Moore, S., Lockee, B. B., Trust, T., & Bond, A. M. (2020, 03 27). The Difference Between Emergency Remote Teaching and Online Learning. Why It Matters to Higher Education *EDUCASE Review*: <https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning> adresinden alınmıştır.
- Jafari, S., & Chalak, A. (2016). The Role of WhatsApp in Teaching Vocabulary to Iranian EFL Learners at Junior High School. *English Language Teaching*, 9(8), 85-92.
- Kenny, A (2002). Online learning: Enhancing nurse education. *Journal of Advanced Nursing*, 38(2), 127-135.
- Kumtepe, E. G., Toprak, E., Ozturk, A., Buyukkose, G. T., Kilinc, H., & Menderis, I. A. (2019). Acik ve uzaktan ogrenmede destek hizmetleri: Yerelden Kuresele Bir Model Onerisi. *Acikogretim Uygulamaları ve Arastirmaları Dergisi AUad* , 5 (3), 41-80.
- Ludwig-Harman, S., & Dunlap, J. (2003). *International Review of Research in Open and Distance Learning*, 4 (1), 1-15.
- Manan, N. A. (2017). WhatsApp Mobile Tool In Second Language Learning. *Indonesan EFL Journal*, 3(1), 87-92.
- Merriam, S.B. (1988) *Case Study Research in Education A Qualitative Approach*. Jossey-Bass, San Francis-co.
- Moore, R. L. (2016). *Interacting at a distance: Creating Engagement in Online Learning Environments*. K. B. Lydia, B. Joseph ,
- N. Esther, & A. Cynthia (Du) icinde, *Handbook of Research on Strategic Management of Interaction, Presence, and Participation in Online Courses* (s. 401-425). Hershey, USA: IGI GLOBAL.
- Moser, F. Z. (2007). *The Strategic Management of E-Learning Support: Findings from American Research Universities* (Cilt 39). Munster: Waxmann Verlag.
- Mutlu, M. E., Beyaz, M., & Iseri, P. (2004). E-ogrenmede Ogrenci Destek Hizmetleri Acikogretim Fakultesi Bilgi Yonetimi Onlisans Ornegi. *Akademik Bilisim* , 1-14.
- PAIER, M. (2007). *Student support services in distance learning systems*. Vienna University of Technology.
- Pilcher, J. (2010). *Willingness of nurses to learn with the use of technology: An exploratory mixed-methods investigation* (Unpublished doctoral dissertation). Northcentral University, Arizona.
- Porter, L. R. (2004). *Developing an Online Curriculum: Technologies and Techniques*. Hershey: Information Science Publisising.
- Susilo, A. (2014). *Exploring facebook and whatsapp as supporting social network applications for english learning in higher education*. Engineering.
- Simpson, O. (2002). *Supporting students in online, open and distance learning* (2 b.). London, England: Kogan Page.
- Sherry, L. (1995). Issues in Distance Learning. *International Jl. of Educational Telecommunications* , 1 (4), 337-365.
- Smith, B. (2005). Online Student Support Services. *Community College Journal* , 76 (2), 26–29.
- Strauss, A., Corbin, J. M. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Sage Publications, Inc.

- Reeves, A. J., Alkharaf, S., & Amasha, M. A. (2019). WhatsApp as an Educational Support Tool in a Saudi University. (IJACSA) International Journal of Advanced Computer Science and Applications, 10 (8), 394-401.
- Roddy, C., Amiet, D. L., Chung, J., Holt, C., Shaw, L., McKenzie, S., et al. (2017). Applying Best Practice Online Learning, Teaching, and Support to Intensive Online Environments: Integrative Review. *Front. Educ*, 2:59.
- Ujakpa, M. M., Heukelman, D., Lazarus, K. V., Neiss, P., & Rukanda, G. D. (2018). Using WhatsApp to Support Communication in Teaching and Lear. (P. C. Cunningham, Du.) IST-Africa Conference Proceedings, 1-6.
- Wijaya, A. (2018). Students' Responses Toward the Use of WhatsApp in Learning. *Journal of Teaching & Learning English in Multicultural Contexts*, 2 (1).
- Veytia-Bucheli, M. G., Gómez-Galan, J., & Vergara, D. (2020). Presence of New Forms of Intercultural Communication in Higher Education: Emojis and Social Interactions through WhatsApp Among Graduate Students. *Education Sciences*, 10 (11).
- Yildirim, Simsek, (2013). *Sosyal Bilimlerde Nitel Arastirma Yontemleri*. Seckin Yayınevi, Istanbul.
- Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed.). Thousand Oaks, CA: Sage
- Zawacki-Richter, O. (2004). The growing importance of support for learners and faculty in online distance education. In J.