WhatsApp for Educational Purposes: Exploring Omani English Language Teachers` WhatsApp Use and Corresponding Beliefs

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Short Research Article

ABSTRACT

A growing body of research accentuates the potential of adopting social media platforms, including instant messaging applications in formal learning. This study aims to explore Omani English language teachers' use of WhatsApp in their teaching as well as their perspectives regarding its use. Twelve Omani English language teachers from various government schools were interviewed and a number of WhatsApp artifacts were collected. The data was analyzed using Thematic Content Analysis and focused on both the teachers' beliefs and their use of the software. The study revealed that teachers' employed WhatsApp for a number of educational purposes such as managing their classes, communicating with parents, improving particular language skills and providing ongoing assistance to support in-home learning. In addition, WhatsApp emerged as a means of developing and maintaining a Virtual Community of Practice (VCoP) in the participants' professional contexts which allowed for sustained continuous professional development of the participants. The research uncovered largely positive views regarding WhatsApp use to facilitate both English language teaching and promote out-of-class learning. The participants confirmed the user-friendly and practical aspects of the application which facilitates both teaching and learning processes. The practical implications of these findings are to support teachers in their agentive role and allow for the bottom-up mobile technology-reliant initiatives that support achieving educational results.

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1. INTRODUCTION

According to Statista (2019), WhatsApp messaging application is one of the most popular social media platforms with about 1.2 billion monthly active users worldwide. It serves as a web-based social platform that is free, readily downloadable, and allows its users to exchange information using different types of media such as text, images, videos, documents, weblinks, and audio messages [1]. Its key functionality necessitates access to the internet but as of now the use of WhatsApp is free of any charges. Although originally not designed for learners in mind, WhatsApp has entered the educational domain with learners' being able to instantly access its functions and enrich the learning process [2].

During the Covid19 pandemic, some countries adopted WhatsApp more formally as a means to support distance learning [3,4]. WhatsApp application is used for sharing learning and teaching materials, improving the learning process and improving language skills. However, in many educational contexts, the challenges of using WhatsApp involve a lack of institutional or formal support which results in rather uncoordinated attempts by individual teachers and their students to augment the educational process with this application. Moreover, as some researchers suggest, students are not ready to learn actively and independently using WhatsApp [5]. In Oman, WhatsApp is informally used in certain academic settings but its use mostly revolves around facilitating communication [6]. In addition, WhatsApp use is not a common practice in Omani schools and there is little research that highlights the integration of WhatsApp application in the learning and teaching process in the Omani school.

In Omani schools, the average number of students in the classroom was reported 26 students in the academic year 2018/2019 (Oman News Agency, 2020). In some schools especially in AlBatinah North and Muscat Governorates, the number can reach 35 to 40 students particularly for grades 5 to 10. Having many students in one classroom may cause a number of educational challenges for English language students and teachers. Due to short contact hours and large group sizes, students do not have sufficient opportunities to practice English language. Additionally, teachers who are tasked with teaching large classes, face many class management issues which often revolve around maintaining in-class discipline. This further deprives their students of being engaged with an adequate amount of practice and further hinders the development of students' language skills and systems.

Consequently, some teachers compensate for the insufficient teaching time by engaging the students and their parents outside of the classroom. Thus, for a number of teachers, WhatsApp has become a tool of choice as it had already been widely used in Oman to accompany various daily activities. Nevertheless, the literature, particularly in the Gulf area, is quite scant in this regard and it is unclear how WhatsApp use and functionality is perceived by Omani English Language teachers in schools and in particular, how they use it to address the educational challenges which have multiplied the recent COVID-19 pandemic. To this end, this research sets out to explore Omani English language teachers' beliefs and use of WhatsApp in their professional practice.

The next two sections continue with the insights into teacher beliefs and teacher knowledge and situate the research within the pedagogical characteristics of mobile learning.

1.1 Teachers` Beliefs and Teacher Knowledge

To define the teacher's belief, it is essential to first define what beliefs are. Sigel (as cited in Pajares, [7]) wrote that beliefs are "the mental constructs of experience often compressed and integrated into concepts." These concepts function according to Brown and Coney (as cited in Pajares, [7]) in determining and guiding behavior. Beliefs are mental constructs and Borg [8] defined a belief as a conscious or unconscious proposition, which by nature is evaluative. Borg, who has a body of research on beliefs and teacher beliefs in particular, claims that a holder of a belief accepts it as true, hence a person holding a given belief will charge it with emotive commitment. This makes such belief more likely to guide other thoughts and actions [8].

The term "beliefs" is also used to refer to other close terms such as opinions, ideas, and views [9,10]. An additional challenge emerges when an attempt is made to differentiate beliefs from other close psychological constructs such as knowledge [7]. Pajares proposes that to make a distinction between beliefs and knowledge one has to understand beliefs as constructs imbued with subjectivity and emotion whereas knowledge should be seen as more connected to facts. Table 1 summarizes the distinction between beliefs and knowledge proposed by Savasci-Acikalin [11].

Table 1. Distinction between beliefs and knowledge

Beliefs	Knowledge
Refer to suppositions, commitments, and ideologies	Refers to factual propositions and the understandings that inform skillful action
Do not require a truth condition	Must satisfy 'truth' condition
Based on evaluation judgment	Based on objective fact
Cannot be evaluated and judged	Can be evaluated and judged
Episodically stored material influenced by personal experiences or cultural and institutional sources	Stored in semantic network
Static	Often changes

To sum up, both beliefs and knowledge contribute to vectors of teacher actions. However, it should be noted that the relationship is reciprocal and teacher actions and their perceived results also influence and shape beliefs and knowledge. In this study, both teacher beliefs and actions are considered in the context of using a mobile-oriented application. Hence, the following section offers a literature-based understanding of mobile learning as relevant to the current research.

1.2 Characteristics of Mobile Learning

Peters [12] views mobile learning as a type of e-learning and stressed its usefulness in providing educational services because of its flexibility. He states that mobile learning devices offer a variety of ways to learn, communicate, and collaborate. Sharples, Taylor and Vavoula [13] regard mobile learning as informal learning which gives the learners a sense of freedom. They argue that learners find informal learning activities more motivating than learning in the formal settings such as schools because the learners in the formal settings have less freedom in choosing tasks for their own goals. The feelings of control and ownership are regarded as important factors influencing the levels of motivation (Sharples et al. 2007). Thus, one may consider a free and readily accessible platform such as WhatsApp to have a potential in increasing educational effectiveness of teachers' efforts. Such effectiveness is stimulated further by communication between learners as it offers the opportunities for collaborative activities where the learners can become more motivated as they can engage in working with others [14].

Additional advantages of mobile learning devices for learners and teachers are that they are portable and small. Moreover, most mobile learning devices do not need extra accessories [15] which makes them readily usable. As Vavoula [16] observes, mobile learning devices can provide continuity by transforming resources or information between different settings. In addition, mobile learning facilitates instant access to information upon the users' requests [17]. According to Ocak [18], mobile learning is a blended learning method as learners are exposed to classroom instruction via face-to-face interaction and to online education via mobile learning methods. All of these define the potential of using mobile devices in educational settings.

Implementing mobile learning is influenced by various factors summarized from National Research Council (1999) as cited in Sharples et al., [13]. The factors are:

1. Learner-centered: It is developed from students' own knowledge and skill, enabling them to think based on their previous knowledge.
2. Knowledge-centered: The learning process comes from validated knowledge that was taught inventively by using different methods.
3. Assessment-centered: The learners are assessed based on their ability and the assessment is able to offer diagnosis and further guidance.
4. Community-centered: An effective learner will form a community to share knowledge and support those who are less able in their studies.

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The ways mobile learning affect teaching and learning processes have been studied across many countries and educational settings. For example, Chen and Katz [19], Hoadley [20] and Sung and Mayer [21] studied the influence of mobile devices in schools and on learning. They discussed their roles and concluded that mobile devices have a positive effect on students and their learning. Other studies highlighted that using mobile phones is helpful for learning (Jacobijn Sandberg, Marinus Maris & Kaspar de Geus, 2011). Moreover, some studies found that teachers used mobile phones to help the writing skills of those with special educational needs [22]. Regarding the implementation of mobile learning in Oman's educational institutions, there are few studies that highlight the status of mobile learning use in the country. The studies addressing in the Gulf area focus mostly on higher education institutions rather than primary and secondary schools [23,24].

WhatsApp necessitates the use of mobile devices and due to its popularity many studies have been conducted to review its use for educational purposes. A number of studies offer evidence that using the WhatsApp application is effective in improving students` learning skills [2,25,26] (Jain, 2016). WhatsApp's potential for supporting language learning has also been reviewed and confirmed [27-30]. Since teachers are often final decision-makers regarding the use of mobile software, their beliefs regarding using WhatsApp application were also explored, with many studies accentuating positive attitudes as vectors influencing the adoption of this software to support teaching [31-33].

1.3 WhatsApp use in Omani Educational Contexts

Locally, in the Omani education contexts, using the WhatsApp application for educational purposes has also already attracted attention with majority of conducted studies focusing on higher education contexts.

AlShekaili [34] investigated the teachers' levels of actual use of the WhatsApp smartphone application with their own students who are studying in the English foundation and credit programs at Sultan Qaboos University. The researcher used questionnaire to obtain quantitative data from 135 teachers teaching in different courses and programs in the spring semester of the academic year 2014-15. The study found that although a number of teachers use WhatsApp in foundation program at SQU, most participants used the application in a limited way, and thus were at lower level of integrating WhatsApp. Another locally-relevant study was conducted by Al-Saleem, Al-Saqri, and Al-Badri [35]. The study investigated WhatsApp use among faculty members at the Department of Information Studies (IS) at Sultan Qaboos University (SQU) in the Sultanate of Oman as a tool for distance education (DE) and as a tool for teaching and learning. Out of nine interviewed faculty members only three actually applied it in class practice such as for class discussions and explanations of projects as well as a tool of communication with students.

Al Dughaishi [36] investigated the impact of using WhatsApp on the writing skills of English as a Foreign Language (EFL) students at the college foundation level. A single group pre-test post-test design was used to collect writing samples from Omani EFL students at a private college to compare the scores achieved in both tests. the participants of the study were 15 males and 10 females who were registered at level 1 of the Foundation Program. The researcher used WhatsApp to teach the students the selected words by providing definitions and examples for clarification. The study found a significant correlation between individual frequency of WhatsApp participations and vocabulary gain. The results revealed positive impact of using WhatsApp to improve foundation level students' writing skills. Another study, conducted by AlFarsi, Jabbar, Malik and Tawafak, [6] aimed to identify the influence of WhatsApp among the employees in AlBuraimi University College and to compare the means of communication used at workplace. The date were collected via a web-based survey among employees. The study found that the respondents preferred WhatsApp for informal communication and email for formal communication. The results also showed that WhatsApp enables faster and easy communication, sharing ideas, chatting and suggested WhatsApp has a positive impact on them. However, majority of respondents didn't suggest WhatsApp in learning and teaching process.

As mentioned above, the use of WhatsApp at primary and secondary levels of education in Oman has attracted less attention. Alkhufiri [37] explored the use of WhatsApp and its influence on teaching and learning English in grade nine in the Omani school. The data was collected by interviewing one female Omani English language

teacher who used WhatsApp application in her teaching. The study found that that using WhatsApp helped to perceive improvements in teaching English through an improved perceived working routine, managing teaching time, added control over the learning route, satisfaction and perceived language improvement.

Hence, the research interest in how WhatsApp is used in Oman in an educational setting has already been established but clearly underexplored. This study aims to add to the body of the literature by investigating the experience of twelve Omani school teachers who use that software. To this end, the study uses Thematic Content Analysis and zooms in on both the teachers' use and the beliefs regarding WhatsApp. The next section outlines the methodology used in the study.

2. METHODOLOGY

2.1 Sample

The participants of the study were selected from AlBatinah North Governorate and non-probability convenience sampling was used to select the initial sample of six participants to obtain initial information relevant to the research questions. Higginbottom [38] defined the convenience sampling as consisting of "participants who are readily available and easy to contact" (p. 15). After selecting the initial sample, snowball sampling - asking participants to identify others to become members [39] was used to extend the sample and identify six additional participants. The selected participants from both sampling methods constituted a group of twelve Omani English language teachers who became the subjects of this research. Fig. 1 details the evolving nature of sampling procedure during the study.

2.2 Instrument

The main data collection instrument used in this study was a semi-structured interview. The interview is regarded as one of the suitable tools to collect participants' thoughts and experiences [40]. Semi-structured interviews allow eliciting more details and explanations without fear of losing control over the flow of the interview. Furthermore, they are suitable for smaller sample sizes as in this study's case and have an agenda covering general themes [41]. The questions of the interviews were open-ended questions in order to allow the interviewees to elaborate on the issue and involve further discussion.

There were two stages where semi-structured interviews were used. The first stage was to choose the initial participants of the study by exploring the knowledge, qualification, and experience of a group of teachers in using the WhatsApp application for educational purposes. At this stage, a group interview was conducted which included some general questions to allow the participants to reflect on their suitability and then to be included in the participant group of the study. During the second stage, semi-structured interviews were used as well to collect information from the selected participants regarding their use of the WhatsApp application for educational purposes and their beliefs about such use. The researcher has arranged the following format of interviews with the participants: depending on the location, some were interviewed individually face to face and the remaining ones were interviewed online. The online format was also applied due to precautions regarding COVID-19.

The interview's structure and questions were revised before conducting the first round with the first interviewees. The researcher referred to Seidman [42] to develop the structure and type of questions of the interviews. After interviewing some participants, the researcher reflected on the structures and questions to improve them to ensure that questions brought useful and rich information about the topic and helped in the flow of the conversations. Moreover, the questions of the interviews were structured to enable asking the various participants the same questions to reach data saturation [43]. Data saturation was considered as "the point at which additional data do not lead to any new emergent themes" [45] where Urquhart (2012, p. 194) defined saturation as: "the point in coding when you find that no new codes occur in the data. There are mounting instances of the same codes, but no new ones." Therefore, when no new data were revealed and the same collected data are presented by the new participants, the data-collecting process was completed.

The interviews were used in several rounds in the second stage. After each round, the researcher qualified the data obtained from the preceding round and when needed, reached back to the interviewees for any explanation or justifications. This was necessary, the questions of the initial round of interviews did not tease out all the aspects of the use of the WhatsApp application for educational purposes and the participants' beliefs regarding such uses. Thus,

through the engagement in the subsequent rounds, crucial ideas and information emerged. In addition, some interviews evolved into ongoing online (WhatsApp-based) discussions and the researcher used these to further develop the questions used in the subsequent rounds. This re-iterative process allowed to gather a rich set of data.

2.3 Data-collection Procedure

The researcher met with the interviewees individually and in small groups. The interviews were conducted both face to face and online via Zoom Program. Each interview, depending on the format and the number of participants, lasted between 25 to 40 minutes. As mentioned above, semi-structured interviews in the first round collected general information obtained by prepared questions and discussions with the interviews, and based on the answers, the researchers adjusted following-round questions to allow for richer data to be collected. The subsequent rounds were conducted when the researcher decided that more aspects need to be covered as new facets of use or perspectives have emerged. The process of collecting data and sampling procedure is summarized in Fig. 1.

2.4 Data Analysis

The Thematic Content Analysis method [45] was used to process the data in this study. The method was implemented throughout the whole analytical process of coding in six phases. These phases are: 1) becoming familiar with the data; 2) generating initial codes; 3) searching for themes; 4) reviewing themes; 5) defining themes; and 6) writing up by producing the final report [46]. The researcher acknowledges that coding in TCA is subjective as the interpretation of a text might vary from a researcher to another.

However, Braun and Clarke [47] and Clarke, Braun and Terry [48] confirmed that the subjectivity of the researcher is an integral aspect of the process of analysis and as such is not detrimental to obtaining valuable findings.

Qualitative research design embraces an inductive approach which involves allowing the collected data to regulate the themes [49]. In the first phase, the audio files were transcribed and then translated into English by the researcher himself. To assure the quality of the translation, a certified translator verified the translation. During transcribing and translating the data some initial codes were developed. Next, each participant was e-mailed a copy of their interview transcript with the initial notes (and codes) to allow requests for any adjustments, a necessary step advocated by Widodo [50].

During the second phase, the researcher generated the initial, predominantly narrow, narrow codes by using the Microsoft Word program. Here, the entire transcript was revised to highlight phrases or sentences from all the different sections of the text. The new codes were added until all the transcripts were covered. The transcripts were revised multiple times to ensure that no new narrow codes emerged from analyzing all the transcripts. During the third stage, more general themes were generated by reviewing and organizing the codes into broader patterns. In the fourth phase, the selected themes were reviewed to verify whether they fit represent the collected data while yielding vectors that relate to the research questions. Some themes were too broad and needed to be split into more specific sub-themes. During the fifth phase, the themes were labeled to facilitate the process of reference easier. At this stage, the themes were reviewed and their overlap was compared. The theme names were inspected
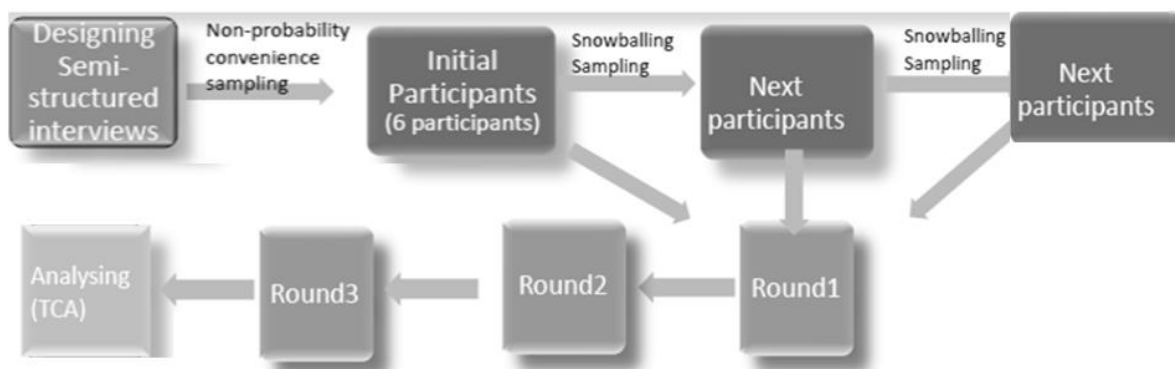

Fig. 1. Data collection process and sampling procedure

for vagueness and, if necessary, modified to make the process of discussing them more streamlined and transparent. During the final phase, the report was drafted with the themes presented, discussed and their relevance interpreted. In the final version of the report, a number of verbatim quotes interviews, and well as excerpts from the literature were added.

Any study revealing teachers' professional actions in their own teaching contexts is political by nature and the wellbeing of the participants must be ensured by a researcher. The participants were informed of their right to refuse participation at any stage of the research. The participants had been informed that all the interviews would be recorded and transcribed with all identifying data removed from the subsequent reporting. Anonymity was also ensured by using letters and numerical symbols (for example, T1, T2, T3) in place of the participants' names. Any other personally identifying data has been removed from the research.

Regarding the confidentiality of the collected artifact data such as snapshots or print screens of the actual WhatsApp exchanges, the researcher recommended that the participants delete or gray out any confidential and personal information. Moreover, all the collected data from the WhatsApp group were revised by the participants to obtain their final approval before subjecting them to further analysis. Finally, in a few cases, the personal identifying data overlooked by the participants was removed by the researchers. The participants were assured that any off-record information, such as their loose comments or any remarks irrelevant to the research would be omitted from the analysis.

A consent form, which included information that enabled the participants to fully understand all the issues related to the study such as the purpose of the study, procedures, schedules, and benefits was issued, and the participants were invited to sign it.

3. FINDINGS AND DISCUSSION

The data collected was analyzed subsequently presented based on the order of the study's research questions which were:

1. How do Omani English language teachers use WhatsApp in teaching/ learning process?

2. What are Omani English language teachers' beliefs regarding using WhatsApp as an educational tool?

The analysis of the interviews revealed that the teachers used WhatsApp for communicating, improving skills, learning beyond classroom, providing assistance, managing the classroom, and as a Community of Practice. Table 2 in the Appendix demonstrates the main themes related to the use and accompanying beliefs. Below is the presentation of the key findings and the relevant discussion.

3.1 English Language Teachers' use of WhatsApp in their Practice

Connectivism learning theory accepts that technology constitutes a key part of the learning process and that learning can take place outside the classroom and be encouraged by the use of mobile digital technologies [51]. Teachers, while engaging in the aspects of their professional practice using WhatsApp, formed connections with both parents and other teachers and encouraged student class engagement by using this channel of social media. Naturally, students, though not directly contacted due to legal and cultural ramifications, were at the center of these connections. A result of the interactions and the connections formed and maintained, school-based language learning was extended beyond the classroom and continued at home. Learning occurred, Friesen & Lowe [52], observe, when the participants in the network shared opinions, viewpoints and critiques through conversation and interaction on a more mutual basis that extended the traditional teacher /student relationship. The discussion below presents the uses of WhatsApp and the emergent Community of Practice.

In reference to the main research question, the findings of the study uncovered various educational purposes of using WhatsApp. Firstly, the most prominent way was communication. In particular, the software was used for communication with parents, other teachers, and school administration. Teacher-parent communication via the WhatsApp application was established to improve the students' performance and achievements. Interestingly, teacher-parent communication via WhatsApp application was regarded as an aspect of parental involvement. Teachers uniformly reported that such involvement influenced the students' achievement and performance

positively. In addition, WhatsApp was used between teachers to discuss their practice and the topics that are related to teaching and learning. Moreover, the participant teacher engaged their students in a number of assignments, both online and offline with the intention to improve particular language systems or skills, such as pronunciation or writing.

Teachers requested students' presentations to be shared via WhatsApp and assigned homework to extend the opportunity of learning at home. This was often done in a more individualized manner, by assigning tasks dependent on the student level. The intention behind requesting WhatsApp-based presentations was to lessen the stress that some, particularly female, students experienced during open-class presentations, which, in their view, deprived some students of getting impartial marks for presentations. To this end, some teachers also asked the students to send their recorded videos of their presentations via WhatsApp. Sending homework via WhatsApp was also regarded as an instance of learning beyond the classroom's borders. Teachers sent homework via WhatsApp to motivate the students to do their homework and to learn.

The participants of this study also used WhatsApp in chosen aspects of classroom management. They asserted that it was particularly useful in controlling their students' truancy and if, necessary disciplining them by immediately reporting the misbehavior to their parents. As one teacher noted, "when students know that I communicate daily with their parents, they become more disciplined'. The instant and direct communication features offered by applications as WhatsApp help in preventing more serious issues from arising by reporting them directly to the parents. As one teacher noted 'it is good to nip things in the bud'- as an early interference can keep the students on the right track. Understandably, this was a result of the direct and continuous involvement of parents in their children's educational process.

Perhaps the most significant finding of this research was that using WhatsApp served the purpose of building and maintaining what Wenger [53] refers to as a Community of Practice (CoP). In the context of this research, the COP was in fact a Virtual Community of Practice VCoP since the studied interaction and maintaining relations occurred predominately online via WhatsApp. Participant teachers were engaged in "online social networks in which people with common interests, goals, or practices interact to share information and knowledge" [54]. According to Riel (1996), the reason behind any CoP - of which VCoP is a type - is solving existing educational issues, finding a clarification of current knowledge, or gaining new content. As demonstrated in the preceding paragraphs, these observations directly align with the opinions presented by the participants of the study.

Furthermore, teachers utilized their VCoP as a tool for Continuous Professional Development (CPD) as it enabled them to collaboratively reflect on their practices and further their teaching skills. This was exemplified by the teachers' collaborative interaction in their subject group where they discussed their teaching-related challenges and offered suggestions to others. Also, teachers' interaction with their supervisors offered additional opportunities such as attending events that interest them as well as teaching strategies. The Virtual Community of Practice that emerged in the study is reminiscent of the findings presented by Cansoy [55] who examined similar interactions by science teachers via their WhatsApp group. Similarly, Li et al. [56], confirmed that informal groups and networks encourage opportunities for information exchange strengthening knowledge and skill-building.

To sum up, this study found the teachers used particular features of WhatsApp groups to support the students' parents and indirectly shape the educational process outside of the language class. In addition, they also used it for their own development by sharing field-relevant pedagogical content knowledge, reflecting on teaching techniques and seeking and offering emotional support among other involved teachers. The next section addresses any pedagogically-relevant beliefs which accompanied the engagement with WhatsApp.

3.2 Teachers` Beliefs Regarding using WhatsApp for Educational Purposes

For the purpose of this research, all participants were selected as they declared that they use WhatsApp as a tool that directly helps them in their teaching practice. Consequently, their negative views regarding WhatsApp use were limited as the teachers mostly focused on the positive aspects of using the application.

Participant teachers expressed a unanimous view that using WhatsApp proved to be an effective tool both for them, students and their parents. Hence, this study confirms findings of Saiful [32] who writes that the majority of EFL prospective teacher educators view using WhatsApp as a useful integration. Perhaps, the crucial contribution of this study is uncovering teachers' belief that TESOL teachers, through a sustained use WhatsApp are able to noticeably and positively affect students' performance; The participants declared that WhatsApp was a valuable teaching and learning tool that can extend learning outside the class thus compensating the inadequate in-school exposure and providing guided practice at home.

In particular, teachers enumerated the types of tasks they sent students to study at home via their parents' mobile phones. These included pronunciation and reading activities, customized auxiliary materials sent tailored for the needs of either weaker or high-achieving students, digital videos and a number of motivating speaking activities. Moreover, the participant teachers observed that WhatsApp the enables the learners to access to materials regardless of time or place, which is particularly valuable in case of learners missed a class. Consequently, classes missed could be compensated and the parents would be aware of such absence in case of truancy.

In addition to the effectiveness of using WhatsApp as an educational tool, the participants confirmed that it is the convenience of using the application that initially fueled their decision to use it in their practice. This view strikes a chord with the Technology Acceptance Model – TAM [57] where the convenience and the ease of use dictate the actual decision to use technology. The teachers attributed WhatsApp's convenience to its comprehensible use and the nature of the established communication. Participants revealed that the different features available in WhatsApp are convenient compared to the same features provided by special devices such as cameras, scanners, and laptops. In sum, the belief that WhatsApp has an intuitive interface and is simple to use is one of the main perspectives declared by participants of this study which guided them to the adoption of this platform.

Additional beliefs regarded the affective domain and resolving behavioral issues. WhatsApp mediated interactions were considered to decrease stress and increase the convenience of contact when compared to the established and more traditional means such as telephone or emails. The instant feature motivated the teachers as well as parents to use it for communicating ad-hoc needs and seeking clarification and often relieved stress before it escalated into a possible conflict. Thus, the teachers who maintained constant communication with the parents expressed contentment that the number of what they referred to as 'surprised and angry parent visits' has significantly decreased. Teachers felt that they could focus was on conducting the desired actions rather than exploring distractors within the application.

Using WhatsApp to solve behavioral issues was studied by Wasserman and Zwebner (2017) who investigated teachers' opinions on teacher-parent WhatsApp group. The participant teachers of their study believed that WhatsApp group helped in solving student problems more quickly. In general, WhatsApp application limits the amount of disciplinary events by facilitating reporting process with parents. In addition, parents use this tool in a direct way with the teachers to discuss related issues and can be provided with details in an easy and quick way. Retrieving quick and richer information make the parents preferring emails, text messages, and social media to communicate with the teachers than the traditional methods (see e.g. Thompson, Mazer & Grady, 2015). This strikes chord with the current study, with the teachers being satisfied with the effectiveness of WhatsApp as a channel of communication between them and parents. As one of the participants put it 'such communication is instant and direct and can occur at any time and does not need the physical presence of the parents'. This benefit was asserted by some former studies (see e.g. Kurtz, 2014; Olmstead, 2013; Kosaretskii & Chernyshov, 2013) that found the frequent communication by using electronic media increases the access to the teachers and shortens the responses which will involve the parents more in the process which consequently will affect the students' performance.

This study demonstrated that teachers believe that WhatsApp can change the way of how students perceive homework and how the assistance offered beyond the classroom can foster that transformation . This view is similar to findings of Bouhnik & Deshen [58] who observe that WhatsApp application is effective in enabling

learning outside the classroom. They exemplified homework materials as one of WhatsApp application usages that teachers and students can use to enhance learning outside of the formal setting. Similarly, Alkhufiri [37] demonstrate that the teachers used WhatsApp to continue the activities started in the classroom at home which helped in covering all the course material, thus effectively increasing the teaching time. Along the same line, Hrastinski, Edman, Andersson, Kawnine, & Soames (2014) explored the effect of instant messaging as tool of communication between students and teachers. Their findings, similarly to this study, revealed improvements as students used instant messaging after school to question their teachers and to receive feedback regarding their learning issues.

3.3 Challenges of using WhatsApp for Educational Purposes

This investigation would not be complete without at least outline some of the emergent challenges which accompany using WhatsApp. Although the sample, as indicated above, was not chosen purposefully to study hindrances the use of WhatsApp created, the participant teachers confessed different challenges such as timing-related distraction, off-topic related issues, confidentiality, and connectivity issues.

The remaining challenges have been classified according to their nature: Technical, educational and instructional. Technical challenges included the unavailability of smartphones with all students and an unnecessarily large volume of messages. Educational challenges included exposure to students' personal life, using inappropriate language, and students' high expectations of teacher availability. Instructional challenges included students' misuse of the application and students' inactivity. Some of the identified challenges corresponded to the ones found by Bouhnik, Deshen, and Gan [58], These included issues circulating on privacy and message volume which lead to time mismanagement and the unwanted availability of teachers and a nuisance of unsolicited messages during their off-work times.

However, despite all of the challenged uncovered, the participating teachers declared their willingness to continue using the application as the benefits outweigh the risks and challenges.

4. CONCLUSION

This study set out to explore the use of WhatsApp and the accompanying beliefs among a group of twelve Omani English language teachers. The participating teachers were interviewed using semi-structured interviews during several rounds and a number of artifacts regarding WhatsApp use were collected. The obtained data was transcribed and translated and later analyzed using Thematic Content Analysis.

5. LIMITATIONS OF THE STUDY

The current study has some limitations resulted from several aspects. First limitations lie in the sample size and sampling strategy. The sampling procedure was positively biased as it favored teachers who actually decided to use WhatsApp in their practice. Hence, the participants of the study were the users of WhatsApp application and consequently were more likely to be more positively inclined in their reflection. However, such sampling strategy was a conscious and purposeful choice and the researcher realizes that a more complete picture regarding teachers' beliefs and actions could have been obtained by extending the sample and involving teachers who choose not to use WhatsApp. Thus, future research, including more teachers with more inclusive sampling could yield a fuller understanding of studied issues. In addition, for practical reasons, the analysis mostly relies on the interviews. These include teachers' narrations with an additional element of artifact study (see Appendix 1 for sample screenshots of WhatsApp exchanges). Using additional instruments such as e.g. reflective journals would likely enrich the data and subsequent analysis.

Next, the congruence between teachers' beliefs and practice was not investigated beyond the collected artifact study e.g. via classroom observation or extended document study. Nevertheless, through the process of utilizing a fine-tuned research instrument (multiple rounds of semi-structured interviews triangulated with the collected artifacts) the researcher managed to identify also some key challenges through critical interrogating the data. In addition, and what is important for Omani context, the gender factor was not controlled. The effect of genders on the findings of the study should be highlighted by focusing on the schools where both single and mixed genders are teaching. It is likely that male

and female teachers interact differently in educational contexts with mothers of students who are traditionally their educational guardians. Finally, in the process of this research, direct data were not collected either from school administration, the parents and the students. This conscious omission yields the results that do not depict the whole picture of WhatsApp use and its perceived usefulness that includes all involved parties. Instead it limits the findings to a perspective espoused by a group of involved language teachers.

6. SUMMARY OF THE KEY FINDINGS AND RECOMMENDATIONS

The study revealed that teachers' used WhatsApp for a number of educational purposes to augment their teaching practice and increase the effectiveness of student English language learning. The main uses involved communicating with students' parents and teacher peers, improving student language skills, promoting language learning outside the classroom by providing ongoing assistance, and managing their classes. While these actions were realized, a Virtual Community of Practice (VCoP) was forged and maintained among the participants. It needs to be stressed that the participants were able to critically reflect also on the accompanying challenges such as intrusion in personal life, irrelevant or off-topic discussion, and internet connectivity issues. Nevertheless, despite these challenges, in teachers' view, WhatsApp demonstrates a clear potential to support language teaching.

This study contributes to the field of teaching and learning English language in Oman by presenting a broader understanding of Omani English language teachers' beliefs about using technological tools for educational process. Moreover, it contributes in filling the gap and providing an overview of how WhatsApp application is used by Omani English language teachers specifically in schools. The Covid19 pandemic has demonstrated a need for multiple, both institutional and individual initiatives to support teachers and learners and participating WhatsApp users have demonstrated its potential.

Veen (1993) confirms that teachers tend to implement new technology if they can use it as well as they have positive beliefs towards it. Davis [59] explains that adoption of particular technology hinges on two main criteria- whether

users perceive it as easy to use and whether they feel it is useful. This study confirms that both Veen's and Davis' perspectives resonate in the unforced and educationally beneficial TESOL teacher initiative to augment their practice. Hence, the current study yields several recommendations. First, Omani English language teachers should consider WhatsApp application or a similar technology as a supporting tool in their teaching practice. In particular, they should consider WhatsApp both for managing teaching process and conduct the actual teaching activities. The participants found the tool useful for ad-hoc administrative matters that necessitate an instant and not-necessarily formal contact with parents. In addition, it allowed them to extend teaching time beyond the class by engaging parents. In terms of English language activities, it proved particularly useful for listening and speaking tasks.

Second recommendation needs to be extended to the managerial level of educationalists who need to acknowledge that teachers, through their resourcefulness, are able to take informal initiatives to compensate for the inadequate teaching and learning opportunities and increase exposure to the target language with the intention to enhance learning. Such acknowledgment must be followed by supporting teacher professional agency and allowing room for their individual teaching-related initiatives rather than following the common trend of top-down imposition of micro-managed educational practices. At the same time, it needs to be stressed, that WhatsApp as a particular tool does not have to be promoted as there are many other alternative technologies available. Consequently, the choice and scope of use should be left to teacher discretion of a practitioner as long as the use remains in tune with the official educational objectives. Finally, it is essential that such initiatives are not obstructed institutionally, e.g. by a ministerial ban on using such technologies or a lack of support from the teaching supervisors.

CONSENT

As per international standard or university standard, Participants' written consent has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Sahu MS. An analysis of WhatsApp forensics in android smartphones. International Journal of Engineering Research. 2014;3(5):349-350.
2. Rambe P, Chipunza C. Using mobile devices to leverage student access to collaboratively generated re-sources: A case of WhatsApp instant messaging at a South African University. International Conference on Advanced Information and Communication Technology for Education (ICAICTE 2013); 2013.
   Available:http://dx.doi.org/10.2991/icaicte.2013.66
3. Susilo A, Sofiarini A. Use of WhatsApp group as learning media in higher education during the COVID-19 pandemic. Edunesia: Jurnal Ilmiah Pendidikan. 2021;2(2):400-410.
4. Ramdhani T, Nandiyanto ABD. The use of Whatsapp social media as reinforcement online learning during the covid-19 pandemic. Indonesian Journal of Multidiciplinary Research. 2021;1(1):107-112.
5. Rahmadi F. WhatsApp Group for Teaching and Learning in Indonesian Higher Education: What's Up?; 2020.
6. Jabbar J, Malik SI, AlFarsi G, Tawafak RM. The impact of WhatsApp on employees in higher education. In Recent Advances in Intelligent Systems and Smart Applications. Springer, Cham. 2021;639-651.
7. Pajares MF. Teachers' beliefs and educational research: Cleaning up a messy construct. Review of Educational Research. 1992;62(3):307-332.
8. Borg M. Teachers' Beliefs. ELT Journal. 2001;55(2):186-87.
9. Kunt N. Anxiety and beliefs about language learning: A study of Turkish-speaking university students learning English in North Cyprus. The University of Texas at Austin; 1997.
10. Wang S. A study of chinese english majors' beliefs about language learning and their learning strategies. Dissertation Abstracts International. 1996;57(12):5021A. (UMI No. 9716564).
11. Savasci-Acikalin F. Teacher beliefs and practice in science education. In Asia-Pacific Forum on Science Learning & Teaching. 2009;10:1.
12. Peters K. m-Learning: Positioning educators for a mobile, connected future. International Journal of Research in Open and Distance Learning. 2007;8(2):1-17.
13. Sharples M, Taylor J, Vavoula G. Towards a theory of mobile learning. In Proceedings of Mlearn 2005 Conference [CD-ROM]. Qualimark Printing, Johannesburg, South Africa; 2005.
14. Crook C. Motivation and the ecology of collaborative learning. Rethinking collaborative learning. 2000;161-178.
15. Quinn C. mLearning: Mobile, wireless, in-your-pocket learning. LiNE Zine. 2000;2006:1-2.
16. Vavoula G. KLeOS: A knowledge and learning organisation system in support of lifelong learning. PhD Thesis, University of Birmingham, UK; 2004.
17. Eteokleous N, Ktoridou D. Investigating mobile devices integration in higher education in Cyprus: faculty perspectives. International Journal of Interactive Mobile Technologies. 2009;3(1):38-48.
18. Ocak M. Blend or not to blend: a study investigating faculty members' perceptions of blended teaching. World Journal on Educational Technology. 2010;2(3):196-205.
19. Chen YF, Katz JE. Extending family to school life: College students' use of the mobile phone. International Journal of Human-Computer Studies. 2009;67(2):179-191.
20. Hoadley C. Social impacts of mobile technologies for children: Keystone or invasive species? Mobile Technology for Children: Designing for Interaction and Learning. Morgan Kaufmann: USA; 2009.
21. Sung E, Mayer RE. Students' beliefs about mobile devices vs. desktop computers in South Korea and the United States. Computers & Education. 2012;59:1328–1338.
22. Swan K, Hooft M, Kratcoski A, Unger D. Uses and effects of mobile computing devices in K–8 Classrooms. Journal of Research on Technology in Education. 2005;(38):1.
23. Al Hamdani DS. Mobile learning: A good practice. Procedia-Social and Behavioral Sciences. 2013;103:665-674.
24. Al-Emran M, Shaalan K. Attitudes towards the use of mobile learning: A case study from the gulf region. International Journal of Interactive Mobile Technologies (iJIM). 2015;9(3):75-78.

25. Amry AB. 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. 2014;1857-7431.

26. Riyanto A. English language learning using WhatsApp application. Akhmad Rianto, Love for All, Hatred for None. WordPress, the Splendid Theme; 2013.

27. Alsaleem BIA. The effect of "WhatsApp" electronic dialogue journaling on improving writing Vocabulary Word Choice and Voice of EFL Undergraduate Saudi Students. Arab World English Journal. 2013;4(3):213-225.

28. El-Sulukiyyah AA. Whatsapp and its use to improve students pronunciation ability. Educazione. 2016;4(2).

29. Han T, Keskin F. Using a mobile application (WhatsApp) to reduce EFL speaking anxiety. Gist: Education and Learning Research Journal. 2016;(12):29-50.

30. Lenhart A, Madden M. Teens, privacy and online social networks: How teens manage their online identities and personal information in the age of MySpace. Pew Research Center; 2007.

31. Aburezeq IM, Ishtaiwa FF. The impact of WhatsApp on interaction in an Arabic language teaching course. International Journal of Arts & Sciences. 2013;6(3):165.

32. Saiful JA. EFL prospective teacher educators' beliefs towards the use of WhatsApp in english learning and teaching. PAROLE: Journal of Linguistics and Education. 2018;8(2):66-71.

33. Suryana I, Hidantikarnillah V, Murwantono D. A narrative inquiry of language teachers' perceptions and experiences in using WhatsApp during New Normal Post-Covid-19 era. EduLite: Journal of English Education, Literature and Culture. 2021;6(1):55-70.

34. Al Shekaili B. Investigating teachers' actual levels of use of WhatsApp application with English Foundation and credit program at Sultan Qaboos University in Oman. Journal of Teaching English for Specific and Academic Purposes. 2016;4(1):39-48.

35. Al-Saleem NE, Al-Saqri MN, Al-Badri AS. The reality of use of WhatsApp as a tool for distance education in teaching and learning: The case of the faculty members at the department of information studies at Sultan Qaboos University, Oman. In

Advanced Online Education and Training Technologies. IGI Global. 2019;200-213.

36. Al Dughaishi H. The impact of Omani EFL students' WhatsApp use on their communicative writing. Nizwa University. (in press); 2020.

37. Alkhufiri A. Exploring a teacher's use of WhatsApp in grade nine in an Omani government school. Nizwa University.(in press); 2019.

38. Higginbottom GMA. Sampling issues in qualitative research. Nurse Researcher (through 2013). 2004;12(1):7.

39. Creswell JW. Educational research: Planning, conducting and evaluating quantitative. Upper Saddle River, NJ: Prentice Hall; 2012.

40. Litosseliti L. Research methods in linguistics. London, United Kingdom: Continuum; 2010.

41. Al Sawafi OS. Investigating English teachers' beliefs and practices in relation to the Continuous Assessment reform in the Sultanate of Oman (Doctoral dissertation, University of Leeds); 2014.

42. Seidman I. Interviewing as qualitative research: A guide for researchers in education and the social sciences. Teachers college press; 2006.

43. Bernard RH. Social research methods: Qualitative and quantitative approaches (2nd ed). Thousand Oaks, CA: Sage; 2012.

44. Given LM. 100 questions (and answers) about qualitative research. SAGE publications; 2015.

45. Braun V, Clarke V. Using thematic analysis in psychology. Qualitative Research in Psychology. 2006;3(2):77-101.

46. Maguire M, Delahunt B. Doing a thematic analysis: A practical, step-by-step guide for learning and teaching scholars. All Ireland Journal of Higher Education. 2017;9(3).

47. Braun V, Clarke V. Using thematic analysis in psychology. Qualitative Research in Psychology. 2006;3(2):77.

48. Braun V, Clarke V, Terry G. Thematic analysis. In P. Rohleder and A. Lyons (Eds.), Qualitative research in clinical and health psychology. Basingstoke: Palgrave MacMillan. 2015;95–113.

49. Thomas A. Children online: Learning in a virtual community of practice. E-Learning and Digital Media. 2005;2(1):27-38.

50. Widodo HP. Methodological considerations in interview data transcription. International Journal of Innovation in English Language

Teaching and Research. 2014;3(1):101-107.

51. Guder C. Patrons and pedagogy: A look at the theory of connectivism. Public Services Quartley. 2010;6(1):36-42.

52. Friesen N, Lowe S. The questionable promise of social media for education: Connective learning and the commercial imperative. Journal of Computer Assisted Learning. 2011;28(3):183-194.

53. Wenger E. Communities of practice: A brief introduction; 2011.

54. Chiu C, Hsu M, Wang E. Understanding knowledge sharing in virtual communities: An integration of social capital and social cognitive theories. Decision Support Systems. 2006;42(3):1872-1888.

55. Cansoy R. Teachers' professional development: The case of WhatsApp. Journal of Education and Learning. 2017;6(4):285-293.

56. Li LC, Grimshaw JM, Nielsen C, Judd M, Coyte PC, Graham ID. Evolution of Wenger's concept of community of practice. Implementation Science. 2009;4(1):1-8.

57. Lee Y, Kozar KA, Larsen KR. The technology acceptance model: Past, present and future. Communications of the Association for Information Systems. 2003;12(1):50.

58. Bouhnik D, Deshen M, Gan R. WhatsApp goes to school: Mobile instant messaging between teachers and students. Journal of Information Technology Education: Research. 2014;13(1):217-231.

59. Davis FD. "Perceived usefulness, perceived ease of use and user acceptance of information technology", MIS Quarterly. 1989;13(3):319–340.

APPENDIX 1

Eight sample screenshots of WhatsApp exchanges (With the personal identifying data obscured)

Screenshot 1

Teachers sharing updates from the English Department via Senior teachers

Screenshot 2

The teacher sending explanations of a task asking mothers to assist their children

Screenshot 3

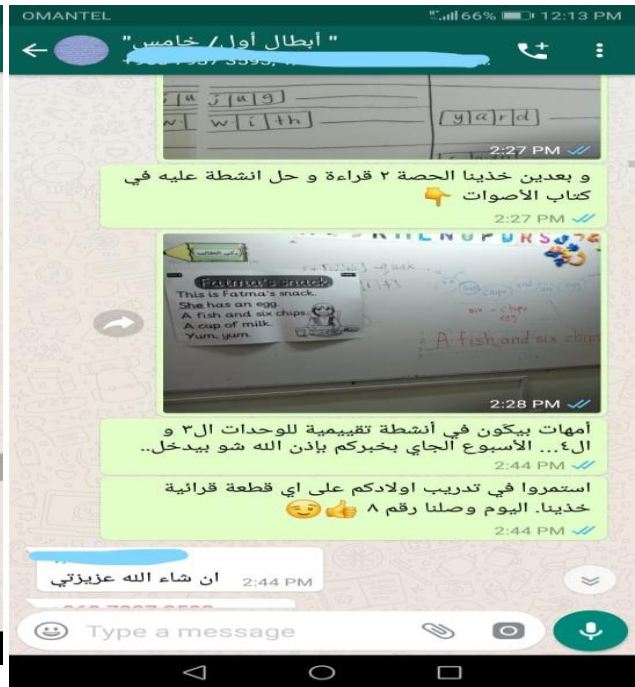**Teacher asking for a unit planner in English Language Teachers group**

Screenshot 4

Teachers discussing ways to improve students` reading

Screenshot 5

Teacher sharing the students` grades with their mothers

Screenshot 6

Teacher sharing the current and future content of classes

Screenshot 7

Teacher sharing the information on the material of the lesson she taught to the mothers

Screenshot 8

Teacher sharing the information on what she taught and what the students need to prepare

APPENDIX 2

Table 2. Emergent themes and sub-themes related to the research questions

Main theme	Sub theme
Communicating	Teacher-parent Communication
	Teacher- teacher communication
	Teacher- School Administration Communication
Improving skills	Enhancing pronunciation
	Enhancing writing
Learning beyond classroom	Assessing presentations.
	Sending homework
	Individualizing tasks
Providing assistance	Students` projects
Managing Classroom	Students' behaviors
	Handling truancy
Community of Practice (CoP)	Professional development
Effectiveness	Effective for teachers
	Effective for parents
	Effective for students
Convenience	Comprehensible use
	Nature of communication