

# A Multifaceted Literature Review of Whatsapp: Opportunities and Challenges in Mobile-Assisted Language Learning

**Mehdi Shaahdadi Goughari**

Islamic Azad University of Iran – Kerman  
Shaahdadimehdi@gmail.com

## **ABSTRACT**

Since the outbreak of Covid-19, the role of technology has become even more significant in education, especially in English Language Learning/Teaching (ELL/T). Although, now a good number of tools, platforms and resources are competitively available to make E-learning easier and more effective, WhatsApp is still one of the most prevalent tools in Mobile-assisted Language Learning (MALL). The purpose of this study is to provide a multifaceted review of the latest articles on using WhatsApp in ELL/T. Thus, a review of the literature was conducted to identify the most recent articles (from 2019 to 2020), which led to the inclusion of 16 relevant studies. Results reported the key opportunities and challenges associated with the use of WhatsApp in ELL/T from four aspects categorized as Language Aspects, Technological Aspects, Psychological Aspects and 21<sup>st</sup> Century Skills. Findings from this study will certainly help academicians, practitioners and researchers in the fields of MALL, and English Language Teaching (ELT) to gauge their trajectories toward using WhatsApp more effectively.

**Keywords:** E-learning; English Language Learning (ELL); English Language Teaching (ELT); Learning Psychology; 21<sup>st</sup> Century Skills

## 1. INTRODUCTION

The majority of studies investigated WhatsApp based on certain aspects. However, the purpose of this study is to review the most recent articles upon WhatsApp and consider four aspects as one to provide a thorough explanatory literature review regarding the ups and downs of WhatsApp. WhatsApp is an online social application, available both on smartphones and desktop. The main purpose of WhatsApp is communication, sharing files (Documents, Audio and Video) and updating status which would last for 24 hours. Although, the main purpose of WhatsApp is connecting people, it has become popular among students, and teachers for the sake of more meaningful communication for learning and teaching. Thus, this paper aims to investigate the most recent articles from 2019 and 2020 to report the benefits and the pitfalls of using WhatsApp in ES/FL contexts, in the hope of helping Mobile Assisted Language Learning, and English Language Learning in particular, during the pandemic and in alike unexpected situations in the future.

## 2. METHODOLOGY

This current study is motivated by the assumption that a multifaceted review of most recent articles regarding WhatsApp in ELLT may allow researchers and practitioners to advance the current practices, seek new opportunities, and overcome hurdles in MALL. This study set out to review papers related to the use and role of WhatsApp in language learning. More specifically, the current study explores the opportunities and potentials as well as challenges and pitfalls provided by WhatsApp for teaching and learning a second or foreign language, using Thematic Analysis Theory Braun and Clarke (2006), for analyzing data extracted from the most recent articles studying WhatsApp in English Language Learning.

### 2.1 Searching and Screening

The database search included articles covering the role of Social Media in language learning and teaching. Several electronic databases were used to retrieve potential articles such as Google Scholars, and Science Direct. Since there has been a large database concerning WhatsApp in ELLT we relied on the most recent articles from 2019 and 2020. We used different combinations of keywords when we executed the search, such as Social Media, English Language Learning and Teaching, MALL, and WhatsApp. The retrieved articles were then stored and prepared for further screening and selection. Certain inclusion criteria were imposed to exclude studies that are not within the focus of this review. The criteria were as follows; studies are:

- 1) using WhatsApp for Language Teaching.
- 2) using WhatsApp for language learning.
- 3) involving students and/or teachers.

A total of 262 articles from the mentioned databases were retrieved and screened. However, only 25 articles were found to meet all inclusion criteria. From these 25 articles that did not use or adequately discuss the role of WhatsApp in English Learning and teaching were excluded. This yielded 16 promising articles

### 3. FINDINGS

Since the study was directed following Thematic Analysis Theory, the results come in four major themes, which each will fall into several sub themes to maintain the clarity of the results. These major themes were labeled as Language aspects, Technological aspects, Psychological aspects, and 21<sup>st</sup>-century skills.

#### 3.1. Language Aspects

The main purpose of this section is to report on the language aspect of WhatsApp, to fulfill the first research theme, through the review of 16 articles, which itself covers five areas, namely, Students as individuals, Students as peers, ELT Pedagogy, Space for ELLT, and Skills. The section will be followed by reporting some challenges of using WhatsApp mentioned in the reviewed articles.

##### 3.1.1. Students as Individuals

English learners, as WhatsApp users, benefit individually from using WhatsApp. The first benefit is learners' autonomy, a popular concept in foreign language education, mentioned by (Kartal, 2019). When learners grow more autonomous in their learning process, they grow more responsible for their learning, therefore, take control of the direction of their learning process. This can lead to gaining adequate awareness about their learning progress (Tarisman & Hanafi, 2020) (Chng, 2020) which can give them a positive sense of achievement. Moreover, WhatsApp motivates learners to use their language and develop their skills (Tarisman & Hanafi, 2020), which is the ultimate goal of language learning, and as it was reported by (Zulkanain et al., 2020) who employed a pedagogical framework called COI by Garrison et al. (1999) to facilitate valuable online learning through WhatsApp, the educational experience does take place. Using WhatsApp entails cognitive involvement (Zulkanain et al., 2020) as well, therefore, learners can find the correct ways of learning (Zulkanain et al., 2020). Furthermore, students are more comfortable to respond and are free to generate and share their ideas (Tarisman & Hanafi, 2020) which can keep the wheels of the class turning. This can result in the active participation of learners in the learning process (Tarisman & Hanafi, 2020) as well as being engaged with course objectives and provide them with the perception of learning (Zulkanain et al., 2020).

Besides, WhatsApp, if not the best but is one of the best choices for digital immigrants in blended learning programs. All advantages mentioned above can lead learners to have a great chance to increase their discovery learning (Zulkanain et al., 2020). The review of papers has revealed that learners as individuals can benefit a lot from using WhatsApp for learning the English language.

##### 3.1.2. Students as Peers

Looking at learners as peers, the class can also benefit from using WhatsApp in their learning process as a group. WhatsApp can increase the level of group work, which increases the chances of peer support (Abraham & Fanny, 2019). Not only this, but also being in a group can also provide learners to learn from their stronger peers and learn mutually, or in other words, it gives learners the experience of peer learning (S. T. S. Ahmed, 2019). As a group, interaction is on the rise and learners enjoy the collaboration (Abraham & Fanny, 2019) (Zulkanain et al.,

2020) and cooperation (Abraham & Fanny, 2019). All in all, being in groups in the context of WhatsApp for a common purpose can bring encouragement from peers (Chng, 2020) as well.

### **3.1.3. ELT Pedagogy**

Having considered personal benefits and group benefits on learners' side, the practice of English Language teaching will also be at the advantage of using WhatsApp. Several studies have concluded that WhatsApp is useful for ELT pedagogy and it has positive impacts on EFL which was also supported by (Kaid Mohammed Ali & Rashad Ali Bin-Hady, 2019). WhatsApp is a useful educational tool in ELT pedagogy (Khan, 2020). As the main agent of ELT, teachers have the opportunity to encourage learners progress even out of the classroom (S. S. Ahmed, 2019), which leads to active participation in teaching progress (Tarisman & Hanafi, 2020). Also, WhatsApp supports the affective dimension of teaching (Strasser, 2020).

There is also an opportunity for providing different forms of feedback (Soria et al., 2020) as the gearbox to calibrate the speed of the progression of teaching. As it was mentioned earlier, WhatsApp is highly enriched with interactions among the educational instructors and the learners in EFL/ESL through the learning process (Khan, 2020) and, more importantly, teaching will be more student-centered (Tarisman & Hanafi, 2020) because learners are freer to express themselves (Tarisman & Hanafi, 2020). Considering WhatsApp in an academic atmosphere, it is academically friendly as well as time-friendly (Khan, 2020), and submitting the work is facilitated through WhatsApp (Tarisman & Hanafi, 2020).

WhatsApp can be useful for an academic context as it carries academic attainment (Khan, 2020). Learners are more motivated because it has been suggested that teachers are an extrinsic motivation for learners (Strasser, 2020) and they can provide a combination of activities with the integration of audio and video which makes learning more interesting for learners (Khan, 2020). Hence, WhatsApp can be regarded as an innovative and motivating tool for ESL/EFL learning process (Khan, 2020). However, it requires instructors to be more creative to ask the right questions to trigger debates (Zulkanain et al., 2020). After all, Teachers' presence is necessary for the facilitation of learning to ensure students are in line with course objectives (Zulkanain et al., 2020), which means the role of teachers is of high importance in giving the right direction to learners.

### **3.1.4. Space for ELLT**

Some studies have concluded that the space of WhatsApp can be especially effective for English language learning, as it provides an opportunity for English language learners to utter more natural language especially in written form (S. S. Ahmed, 2019). This is mainly because interactions in WhatsApp are quite natural which can contribute to students' language with the use of contextualized language. Therefore, this platform can provide a space for natural language and language proficiency (S. S. Ahmed, 2019).

The space of WhatsApp is ideal for constructing discussions (Khan, 2020). Therefore, such space significantly contributes to the process of learning (Khan, 2020). Also, it provides different forms of learning including simple learning, effective learning, available learning, and simultaneous learning (Khan, 2020), as well as active learning (Haerazi et al., 2020). So, generally, if WhatsApp is used in a principle technologically digestible and methodologically exploited way, it supports and enhances language learning (Strasser, 2020) and as (Kaid Mohammed Ali & Rashad Ali Bin-Hady, 2019) suggested, WhatsApp should be activated at

all stages of English language teaching and learning because it has improved language acquisition and is motivating learners to use their language and develop their skills. WhatsApp offers an ideal and effective learning space for digital immigrants in a blended learning program (Chng, 2020).

### **3.1.5. Skills**

This section deals with the effects of WhatsApp on the output of English classes regarding skills, which fall into two groups; 1) Macro skills referring to the four major skills of English language known as Reading, Writing, Listening, and Speaking, and 2) Micro skills which is a label for the two subskills, Vocabulary and Grammar, of the language.

The results of several studies indicated that using WhatsApp has a positive effect on macro skills of English language including Reading, Listening, Speaking, and Writing (Abraham & Fanny, 2019; Kartal, 2019) as well as the micro skills \_vocabulary and grammar (S. T. S. Ahmed, 2019; Kartal, 2019). Regarding Writing, WhatsApp proved to have significant effects (Tarisman & Hanafi, 2020) while (Magogwe & Jaiyeoba, 2019) (S. S. Ahmed, 2019) concluded that using WhatsApp helps developing Academic Writing and (Ahmad et al., 2020; S. S. Ahmed, 2019; Kaid Mohammed Ali & Rashad Ali Bin-Hady, 2019; Magogwe & Jaiyeoba, 2019) highlighted the development of thesis writing after using WhatsApp, as well as (Tarisman & Hanafi, 2020) who mentioned the development of critical and descriptive writing through WhatsApp. In addition to writing, WhatsApp also plays a significant role in improving reading (S. S. Ahmed, 2019; Kaid Mohammed Ali & Rashad Ali Bin-Hady, 2019) and, indeed, critical reading skills (Tarisman & Hanafi, 2020). All in all, WhatsApp plays a positive role in enhancing learners' (both Macro and Micro) language skills.

### **3.1.6. Challenges**

WhatsApp also entails some challenges for being used in English classrooms, and for both teachers and learners of English. One is that WhatsApp can be highly addictive which might not allow effective studying of the language (Abraham & Fanny, 2019) and might be distractive to learners (Tarisman & Hanafi, 2020; Zulkanain et al., 2020). However, students' addiction can be led toward improving their abilities and knowledge (Kaid Mohammed Ali & Rashad Ali Bin-Hady, 2019). Academic dishonesty is another major disadvantage as cheating is quite common (Abraham & Fanny, 2019). Moreover, in terms of learners' performance, the challenges are to be the quick choice of the appropriate expressions, uttering grammatically error-free sentences, and the fear of making mistakes, as well as not having adequate vocabulary are other challenges that students might face while using their language in WhatsApp which can also demand extra workload (Tarisman & Hanafi, 2020).

Another challenge that concerns learners is the lack of intrinsic motivation for participating effectively in the process of learning, as well as the fact that some students might suffer from a real need for communication (Tarisman & Hanafi, 2020). (Strasser, 2020) adds that sharing information does take place, nevertheless, it might not be meaningful for students. And finally, another downside of WhatsApp is directed to the fact that physical material is lost and some students might feel the need for physical prints (Chng, 2020).

## **3.2. Technological Aspects**

After the advantages and the obstacles of using WhatsApp in language learning, this review is now considering the technological aspects of using WhatsApp as an educational tool for

English language classes. The technological aspect will be categorized into two groups for the sake of clarity and brevity. The first group will address the capacity of WhatsApp, which will be referred to as Technological capacities and the second group will discuss the functional aspects of WhatsApp in the English classroom which is labeled as Technological Functions of WhatsApp. This section will also discuss some pitfalls of WhatsApp technology for language learning.

### **3.2.1. Technological Capacities**

The most immediate and vivid technological capacity of WhatsApp is its feasibility and affordability (Khan, 2020; Magogwe & Jaiyeoba, 2019), as well as its availability on smartphones which has made it so convenient (Magogwe & Jaiyeoba, 2019). (Tarisman & Hanafi, 2020) asserted that WhatsApp provides an unlimited environment and both (Chng, 2020; Zulkanain et al., 2020) compared WhatsApp with LMS and concluded that it is easier to chat in WhatsApp rather than LMS, which had been earlier supported by (Kaid Mohammed Ali & Rashad Ali Bin-Hady, 2019). In the same study, another advantage of WhatsApp was its notification alerts which were welcomed by learners as they could be aware of updates (Chng, 2020). (Khan, 2020) conducted a synopsis study to find more about the concept, challenges, and strategies of using WhatsApp in ELT pedagogy. It was found that WhatsApp is innovative, collaborative, user-friendly, time-friendly, privacy-friendly as well as a source of high interaction (Khan, 2020). In another study in the same year (Zulkanain et al., 2020) mentioned instant communication which is considered as another capacity of WhatsApp technology.

### **3.2.2. Technological Functions**

WhatsApp can be highly functional in language learning. Online activities generally are faster and the speed of transition of data is quite high. Hence, one of the advantages of using WhatsApp in English classrooms is that WhatsApp can facilitate students in submitting their tasks and assignments, as well as sharing information and knowledge (Tarisman & Hanafi, 2020). WhatsApp is used as a means of allocating and distributing materials and resources more easily (Khan, 2020; Zulkanain et al., 2020). Using WhatsApp in English classrooms gives direct access to learners with their instructors (Khan, 2020) which can make a teacher more approachable. Besides, knowledge communities are more likely to be nurtured and improved by using WhatsApp (Abraham & Fanny, 2019). The mentioned functions are only a few of many extracted from the target articles in this review. This suggests the possible existence of more functions regarding the implication of WhatsApp in a language classroom.

### **3.2.3. Technological Pitfalls**

Turning to the other side of the technological aspects of WhatsApp, there are of course some disadvantages concerning WhatsApp. One of the disadvantages of using WhatsApp as an educational tool is that it is difficult to back up messages in WhatsApp and difficult to retrieve the existing information (Abraham & Fanny, 2019). Therefore, some students prefer to switch WhatsApp to a safer place where the data can be stored such as Telegram or Signal (Strasser, 2020). Using WhatsApp uses a lot of data to operate (Abraham & Fanny, 2019) and Internet expenses in some countries is another concern regarding using WhatsApp (S. T. S. Ahmed, 2019). Also, the unavailability of the internet is another disadvantage of using WhatsApp as an educational tool (S. T. S. Ahmed, 2019), which impedes learning progress. Although the

desktop version of WhatsApp is available, WhatsApp is mainly used on smartphones, therefore, the small screen of mobiles has been mentioned by (Tarisman & Hanafi, 2020) as one of the disadvantages of using WhatsApp to be used for learning purposes.

Above all, cyberbullying is one major disadvantage of social networking applications, especially for WhatsApp (Kashy-Rosenbaum & Aizenkot, 2020). (Kashy-Rosenbaum & Aizenkot, 2020) has also cited Aizenkot (2017) to classify Cyberbullying into four groups: 1) Verbal-related: such as expressed in mockery, curses, insults, derogatory names, and threats. Second, Group-related: opening a group against a specific individual, group boycotts, etc. Third, Selectivity-related: opening a group without a particular user, despite their desire to participate in the group and finally, fourth, visual-related, which contains posting or sharing offensive photos and videos, offensive labeling of photos and videos, etc.

It was also indicated the rate of cyberbullying was higher with younger students than older ones and female students are more likely to be victimized by cyberbullying than their male counterparts. However, cyberbullying is directly related to the classroom climate. If the classroom climate is improved, cyberbullying decreases and students' sense of belonging also increases (Kashy-Rosenbaum & Aizenkot, 2020).

### **3.3. Psychological Aspects**

In addition to the two preceding aspects, Language and technology, this study has also revealed that using WhatsApp can be psychologically beneficial for both learners and teachers. The careful study of the papers has revealed that learners as individuals and in groups, both enjoy the benefits which can contribute to a better educational experience and wellbeing. For the sake of clarity, this review has divided the benefits into two groups as Personal Dimension and Interpersonal Dimension, which are discussed as the following, and at the end of this section, the negative psychological aspects will be discussed.

#### **3.3.1. Personal Dimension**

Some scholars have emphasized the increased motivation while using WhatsApp as an educational tool (Abraham & Fanny, 2019; Kartal, 2019; Khan, 2020; Soria et al., 2020; Tarisman & Hanafi, 2020; Zulkanain et al., 2020). This can simply mean that both demotivated students and already-motivated ones will enjoy the increased level of motivation while experiencing learning the language. Besides, using WhatsApp helps in lowering the level of anxiety (Kaid Mohammed Ali & Rashad Ali Bin-Hady, 2019; Kartal, 2019). This can simply mean that both demotivated students and already-motivated ones will enjoy the increased level of motivation while experiencing learning the language.

Several scholars have pointed that learning through WhatsApp can be engaging (Soria et al., 2020) enjoyable, full of fun, joy, and enthusiasm (S. T. S. Ahmed, 2019; Kaid Mohammed Ali & Rashad Ali Bin-Hady, 2019; Strasser, 2020). This leads to an increased level of engagement (Kashy-Rosenbaum & Aizenkot, 2020; Soria et al., 2020). Students take more interests (Khan, 2020), and grow more enthusiastic and active (Tarisman & Hanafi, 2020). Therefore, ELT students have positively perceived WhatsApp as a good language tool (S. T. S. Ahmed, 2019; Kaid Mohammed Ali & Rashad Ali Bin-Hady, 2019) and generally have positive attitudes toward WhatsApp (Kaid Mohammed Ali & Rashad Ali Bin-Hady, 2019; Kartal, 2019).

Moreover, (Strasser, 2020) suggested increased self-esteem by learning through WhatsApp, and (Chng, 2020) mentioned the sense of security. Therefore, students are abler to generate

and express emotions and gain more understanding (Zulkanain et al., 2020). Another positive psychological impact would be on mental wellbeing. As (Soria et al., 2020) have pointed out, using WhatsApp buys learners, especially digital immigrants, more time to play. The scholar mentioned that students have felt better and their level of satisfaction has increased due to personalized learning.

Another benefit has been suggested by (Tarisman & Hanafi, 2020), who found out that learners are more likely to become aware of their progress which gives them a sense of achievement. This has also been advocated by (Zulkanain et al., 2020), who concluded that using WhatsApp can give students the perception of learning, and (Soria et al., 2020) furthered this notion by suggesting that WhatsApp can encourage learners to continue working. Furthermore, students tend to excel beyond their current skills (Tarisman & Hanafi, 2020) which means students' Zone of Proximal Development (ZPD) Vygotsky (1896–1934) can be activated by using WhatsApp as a learning tool.

### **3.3.2. Interpersonal Dimension**

Considering the interpersonal psychological aspect of using WhatsApp as a learning tool, it is worth mentioning that the nature of this platform is to connect individuals and increase the level of sociality. Hence, using WhatsApp as a learning tool was found to be encouraging for students to talk with each other (Kaid Mohammed Ali & Rashad Ali Bin-Hady, 2019). (Kashy-Rosenbaum & Aizenkot, 2020) pointed out that students would feel supported and accepted by others, resulting in a sense of belonging which was suggested by the same author to be increased if the classroom climate improves. Similarly, (Zulkanain et al., 2020) reported the social presence which leads to supporting emotions of one another, and peer encouragement (Chng, 2020).

### **3.3.3. Negative Psychological Aspects**

Reportedly, (Kashy-Rosenbaum & Aizenkot, 2020) said using WhatsApp also harbors some dangers. The author detailed the dangers and named: insults, curses, threats, mockery, humiliation, exposure to inappropriate contents, abusive responses, fear and avoidance of discourse, group exclusion, blocking, and removal as members of WhatsApp, which all fall under the term Cyberbullying (Kashy-Rosenbaum & Aizenkot, 2020). This notion has been narrowed down to the fact that female students are more likely than males to be victimized by cyberbullying, selectivity, Avoidance of participation due to fear of offensive responses (Kashy-Rosenbaum & Aizenkot, 2020). However, mature adolescents are less involved in cyberbullying (Kashy-Rosenbaum & Aizenkot, 2020). Therefore, using WhatsApp can decrease the sense of security. On the other hand, another concern is that WhatsApp can be addictive (Abraham & Fanny, 2019) and emotions and messages could be wrongly interpreted (Chng, 2020). This author also concluded that it is difficult to express themselves in words.

### **3.4. 21<sup>st</sup> Century Skills**

This review has considered the 21<sup>st</sup>-century skills and whether using WhatsApp as an educational tool in English classes can affect these skills. The skills extracted from the articles are numerous, therefore, to serve the purpose of this review, they have been categorized into three major groups namely, learning skills, literacy skills, and life skills, with each group covering a range of skills.



### 3.4.1. Learning Skills

The first group to mention is learning skills which itself contains a set of skills related to fulfilling the purpose of learning better. The review of articles has revealed that using WhatsApp in ELT can help learners acquire and nurture several core skills for learning. For example, the study has come across the idea that using WhatsApp can affect critical thinking positively as it was supported by (Zulkanain et al., 2020) that students are provided with the privileged opportunity to discover and form new ideas based on their interpretation of the problem and issue discussed with peers and with their teacher (Zulkanain et al., 2020).

Considering pre-service teachers, WhatsApp as a model of MALL improves critical thinking skills in two levels (High and Low) (Haerazi et al., 2020). In addition to critical thinking, (Baguma et al., 2019) mentioned that there is little evidence that using LMS can facilitate the development of HOTS and, on the other hand, there is limited research on the benefits of WhatsApp in the African educational context. Hence, it was tried to examine how WhatsApp Enabled Learning (WAEL) can contribute to Higher Order Thinking (HOT) such as critical thinking and problem-solving skills as well as reflective thinking and suggested that WhatsApp can be potentially useful for supporting the development of HOTS for some reasons, for example, its affordances such as ubiquity, which means “to be available anytime and anywhere” (Abraham & Fanny, 2019; Khan, 2020). However, understanding what should be done with WhatsApp to design and implement WAEL activities can help enhance HOTS better which, as it has been examined, could be better achieved through Activity of Theory (AT). Furthermore, (Tarisman & Hanafi, 2020) conducted a study applying a pre-experimental test using WhatsApp as a Flipped Classroom media to evaluate the extent to which WhatsApp can help students’ writing. It was concluded that WhatsApp can help to enhance a critical perspective for both reading and writing as it buys time for students to think about the content and write better-structured sentences.

In addition to critical thinking skills, students’ level of creativity will increase through using WhatsApp. (Baguma et al., 2019) asserted that WAEL will enhance HOTS skills in general including inquiry, creativity, critical reflection, and dialogue. When it comes to dialogue (Abraham & Fanny, 2019) and (S. T. S. Ahmed, 2019) both have mentioned using WhatsApp leads to the development of communication due to its nature which is for communication. To be more specific, (Abraham & Fanny, 2019) specified that WhatsApp creates the possibility for different types of communication, including one-to-one, one-to-many, and many-to-many communications which take place in real-time, and (S. T. S. Ahmed, 2019) stated that WhatsApp groups provide an opportunity for communication in English.

Having viewed learners as knowledge constructors, (Tarisman & Hanafi, 2020) concluded that to make learners knowledge constructors, WhatsApp is a tool for improving students’ motivation, participation, and collaboration. One very important skill that has been bolded by several scholars throughout this review study is problem-solving. As mentioned above, (Baguma et al., 2019) asserted that WAEL can contribute to HOTS (such as critical thinking and problem solving). (Ahmad et al., 2020) narrowed down the problem-solving skill into academic writing in an Indonesian context and found that WhatsApp could help students share, discuss, and solve their problems regarding their thesis writing. Similarly, (Chng, 2020) investigated the educational use of WhatsApp among digital immigrants and claimed that peer

interaction in the WhatsApp group chats allowed students to talk more about how to solve problems faced in the assignments and discuss possible exam topics.

### **3.4.2. Literacy Skills**

Literacy skills help an individual to recognize publishing resources, facts, and the system behind them. The main purpose that such skills serve is to equip a person to recognize trustworthy information from unreliable ones. Here, in this study, we use literacy skills to refer to three groups namely information literacy, technology literacy, and media literacy. This review reports the extent to which using WhatsApp in the English classroom can affect the literacy skills of learners and where these skills lead once acquired and enhanced.

As for information literacy, their study of articles revealed that learners can be seen as knowledge constructors. (Abraham & Fanny, 2019; Tarisman & Hanafi, 2020) mentioned Vygotsky (1978)(1980) suggesting that the cornerstone of constructing knowledge is social interactions, and learning itself can also be influenced by the cognitive and psychological state of a learner. The latter article, like previous discussions, reached results in line with social development theory and supported Constructivist-mobile learning environment and suggesting new roles for teachers to motivate students to go beyond their current boundaries and viewed learners as knowledge constructors. This can mean that using WhatsApp for learning can help learners recognize information and later on construct more reliable knowledge through participation, and collaboration. Learners are also free to generate and share ideas through WhatsApp (Tarisman & Hanafi, 2020). This allows learners to evaluate their ideas from others' perspectives, therefore, peers can also be motivated to discuss different ideas and recognize the reliable ideas and form a common logic.

In the article published in (Baguma et al., 2019), it was clearly stated that WAEL can enhance HOTS. One of the aspects of HOTS deals with Media literacy. Media literacy deals with how and from which source the information is published. To recognize this, learners need to enhance HOTS, including evaluation, analyzing, applying, understanding, remembering, and reasoning (Baguma et al., 2019). Learning through WhatsApp can enhance such skills if it is used more methodologically and strategically and the tasks are designed and executed with care.

Last but not least is technological skills which means the ability to understand the machines and platforms distributing information. (Tarisman & Hanafi, 2020) asserted that WhatsApp provides an unlimited environment and learners can enhance their technical skills by participating and utilizing such technology. Therefore, using WhatsApp as an educational tool can simply help learners acquire and develop their technological skills.

### **3.4.3. Life Skills**

The last group of literacy refers to those skills related to both personal and professional life. The review of literature has revealed that using WhatsApp in English classes can entail a myriad of life skills such as social skills, flexibility, leadership, initiative, and productivity. WhatsApp is rich in the level of interaction. Therefore, students have an opportunity to interact with their peers in one-to-one or groups. According to (Ellison, Steinfield & Lampe, 2007) this can lead to the accumulation of social capital (Baguma et al., 2019). Therefore, using WhatsApp as an educational tool can develop social skills (Zulkanain et al., 2020).

The study conducted by (Chng, 2020) with digital immigrants (age 40) found WhatsApp is a tool for buying time for digital immigrants for networking and bonding (Chng, 2020). WhatsApp can affect the initiative skills of learners. (S. T. S. Ahmed, 2019) carried out two articles and in both, he emphasized the fact that students would create and join English-Medium groups which shows that learners decide to deal with some participants as the administrator of the group. This can suggest that learners grow their initiative skills and through administrating the group they can improve their leadership skills.

Students can grow more flexible while using WhatsApp as a tool for learning. (Haerazi et al., 2020) explained how some students were initially reluctant to participate in their WhatsApp group. Besides, as it has already been mentioned above, and as learners improve their HOTS, they acquire the ability to look at things from a different perspective. As well as flexibility, learners can also become more productive. This has been mentioned in a form of raising complex questions, developing consistent arguments (Baguma et al., 2019), and becoming more competitive for outperforming their peers (Soria et al., 2020).

#### 4. CONCLUSION

Our review of the most recent literature reported different opportunities emerged from using WhatsApp in ELLT from the study of 16 articles. The findings of the review were categorized into four distinct themes based on the four research questions. The themes were labeled as Language Aspects, Technological Aspects, Psychological Aspects, and 21<sup>st</sup> Century Skills, which were respectively directed to research questions.

The results for language aspects came in five perspectives, reported as 1) Students as individuals, which considered the benefits for learners individually, 2) Students as peers, which evaluated the benefits of WhatsApp for students in groups, 3) ELT pedagogy, how and to what extent teaching through WhatsApp can be useful 4) Space for learning and teaching, to find out what benefits the virtual atmosphere of WhatsApp can provide for ELLT and finally 5) Skills, which served to assess how effective WhatsApp is for enhancing learners' language skills. Then, the challenges of learning and teaching English were reported at the end of the Language-aspect section.

The results for Technological aspects came in two subcategories, known as 1) Technological Capacities, which reported the Technological privileges of using WhatsApp, and as 2) Technological Functions, the part where we mentioned the educational implications of WhatsApp for ELLT. There were some technological pitfalls of WhatsApp which were reported at the end of the related section.

We furthered our investigation by considering the psychological aspects of using WhatsApp. This section was also divided into two parts, considering the personal aspects and the interpersonal aspects of using WhatsApp. There were some psychological concerns regarding using WhatsApp in ELLT which were also discussed at the end of the section.

Besides the psychological aspect, the 21<sup>st</sup>-century skills which could be enhanced while learning through WhatsApp were also reported. The skills fell into three subcategories, 1) Learning Skills, 2) Literacy skills and 3) Life skills. It was mentioned that using WhatsApp contributes to preparing 21<sup>st</sup>-century learners to a great extent.

There is no doubt that the implementation of WhatsApp technology in ELLT has provided substantial improvements in students' language skills, 21<sup>st</sup>-century skills, and personal and interpersonal dimensions of psychology. WhatsApp as a learning and teaching tool in ELLT will certainly help academicians, practitioners, and researchers to understand the opportunities and challenges of this tool to promote MALL from a wider perspective.

## 5. ACKNOWLEDGMENTS

The author of this review would like to thank and dedicate this article to his shooting star, Ms. Niloofer Darvishzade, an extraordinary artist, whose strong words, beautiful mind, remarkable paintings and beliefs gave enough courage and power to the author to embark on his journey of success.

## 6. REFERENCES

- Abraham, O., & Fanny, A. (2019). Social Media in Teaching-Learning Process: Investigation of the Use of Whatsapp in Teaching and Learning in University of Port Harcourt. *European Scientific Journal ESJ*, 15(4), 15–39. <https://doi.org/10.19044/esj.2019.v15n4p15>
- Ahmad, S., Zulfikar, T., & Hardiana, F. (2020). The use of social media whatsapp among English education students for solving thesis writing problems. *Humanities and Social Sciences Reviews*, 8(3), 447–455. <https://doi.org/10.18510/hssr.2020.8348>
- Ahmed, S. S. (2019). WhatsApp and Learn English: a Study of the Effectiveness of WhatsApp in Developing Reading and Writing Skills in English. *ELS Journal on Interdisciplinary Studies in Humanities*, 2(2), 148–156. <https://doi.org/10.34050/els-jish.v2i2.6419>
- Ahmed, S. T. S. (2019). Chat and learn: Effectiveness of using whatsapp as a pedagogical tool to enhance efl learners' reading and writing skills. *International Journal of English Language and Literature Studies*, 8(2), 61–68. <https://doi.org/10.18488/journal.23.2019.82.61.68>
- Aizenkot, D. (2017). WhatsApp cyberbullying among children and adolescents in Israel: A pilot research. *Educational Counseling*, 20, 363-389. (In Hebrew)
- Baguma, R., Bagarukayo, E., Namubiru, P., Brown, C., & Mayisela, T. (2019). Using WhatsApp in Teaching to Develop Higher Order Thinking Skills-a Literature Review Using the Activity Theory Lens. *International Journal of Education and Development Using Information and Communication Technology (IJEDICT)*, 15(2), 98–116.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77–101.
- Chng, L. K. (2020). Face-to-Face Tutorials, Learning Management System and WhatsApp Group: How Digital Immigrants Interact and Engage in E-learning? *Malaysian Online Journal of Educational Technology*, 8(1), 18–35. <https://doi.org/10.17220/mojet.2020.01.002>

- Ellison N.B., Steinfield C., Lampe C. (2007). The Benefits of Facebook “Friends:” Social Capital and College Students’ Use of Online Social Network Sites. *Journal of Computer-Mediated Communication*, vol.12, no. 4, pp.1143-1168
- Haerazi, Utama, I. M. P., & Hidayatullah, H. (2020). Mobile applications to improve english writing skills viewed from critical thinking ability for pre-service teachers. *International Journal of Interactive Mobile Technologies*, 14(7), 58–72.  
<https://doi.org/10.3991/IJIM.V14I07.11900>
- Kaid Mohammed Ali, J., & Rashad Ali Bin-Hady, W. (2019). A Study of EFL Students’ Attitudes, Motivation and Anxiety towards WhatsApp as a Language Learning Tool. *Arab World English Journal*, 5, 289–298. <https://doi.org/10.24093/awej/call5.19>
- Kartal, G. (2019). What’s up with WhatsApp? A Critical Analysis of Mobile Instant Messaging Research in Language Learning. *International Journal of Contemporary Educational Research*. <https://doi.org/10.33200/ijcer.599138>
- Kashy-Rosenbaum, G., & Aizenkot, D. (2020). Exposure to cyberbullying in WhatsApp classmates’ groups and classroom climate as predictors of students’ sense of belonging: A multi-level analysis of elementary, middle and high schools. *Children and Youth Services Review*, 108, 104614. <https://doi.org/10.1016/j.childyouth.2019.104614>
- Khan, I. A. (2020). A Synopsis of the WhatsApp-Based Instruction and ELT Pedagogy: Concept, Challenge and Strategy. *International Journal of Linguistics*, 12(1), 45. <https://doi.org/10.5296/ijl.v12i1.16240>
- Magogwe, J. M., & Jaiyeoba, O. (2019). ESL University Students’ Attitudes towards using Whatsapp in Academic Writing. *Computerresearch.Org*, 19(1).  
<https://computerresearch.org/index.php/computer/article/view/1817>
- Soria, S., Gutiérrez-Colón, M., & Frumuselu, A. D. (2020). Feedback and mobile instant messaging: Using whatsapp as a feedback tool in EFL. *International Journal of Instruction*, 13(1), 797–812. <https://doi.org/10.29333/iji.2020.13151a>
- Strasser, T. (2020). *App , app ’ n ’ away. How social messaging tools like WhatsApp support mobile language learning and teaching. 2020, 25–55.*
- Tarisman, & Hanafi, H. (2020). The Effect of Whatsapp in A Flipped Classroom on Students’ Writing Achievement at MTsN 1 Konawe. *Advances in Social Sciences Research Journal*, 6(12), 253–268. <https://doi.org/10.14738/assrj.612.7550>
- Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes.* Cambridge: Harvard University Press.
- Zulkanain, N. A., Miskon, S., & Syed Abdullah, N. (2020). An adapted pedagogical framework in utilizing WhatsApp for learning purpose. *Education and Information Technologies*, 25(4), 2811–2822. <https://doi.org/10.1007/s10639-019-10096-0>