
The Use of WhatsApp in English Writing Activities: A Correlational Study of WhatsApp Use and Writing Performance

*Panji Tanashur*¹

*Dedi Aprianto*²

*Sutarman*¹

*Lela Rahmawati*¹

¹ Universitas Bumigora, Indonesia;

² Corresponding Author, Universitas Bumigora, Indonesia; dediaprianto44@gmail.com

Received: 8 April 2024

Accepted: 22 July 2024

Published: 24 July 2024

Abstract

Various research claims arise from the results of research on the use of WhatsApp in ELT. The results revealed that the use of WhatsApp software contributed positively to the development of English writing proficiency, and the other results considered that the use of WhatsApp has many weaknesses and difficulties in writing and other language instructions. This controversy allowed the researcher to conduct research aimed at finding out whether there was a correlation between the use of WhatsApp as a tool in writing activities and EFL student writing performance and to find out how close the relationship between the two variables is. The statistical correlation from Pearson Product Moment revealed that the correlation of the independent variable with the dependent variable showed a sig. value of $0.000 < 0.05$, and the correlation rate was very strong with a correlation coefficient ($r = 0.832$), along with the hypothesis tested showing $H_0: \beta_1 \neq 0$. This study shows a very strong correlation between the use of WhatsApp as a tool in English writing activities and writing performance. WhatsApp interventions into ELT in the form of group WhatsApp and individual WhatsApp's text message interactions have contributed to EFL students' writing skills as the correlation of two variables goes parallel. The more students do the writing activity through WhatsApp, the higher the writing achievement they acquire.

Keywords: WhatsApp, writing activities, writing performance



To cite this article: Tanashur, P., Aprianto, D., Sutarman, & Rahmawati, L. (2024). The use of WhatsApp in English writing activities: A correlational study of WhatsApp use and writing performance. *SALEE: Study of Applied Linguistics and English Education*, 5(2), 447-464. <https://doi.org/10.35961/salee.v5i2.1369>

DOI: 10.35961/salee.v5i2.1369

1. Introduction

Today's English language teaching models and designs place a growing emphasis on integrating technology into the classroom. While research on the correlation between technology and writing achievement has yielded mixed findings, some studies suggest that technology can improve writing skills through tools that support revision, creativity, and immediate feedback. However, challenges such as digital access and teacher preparedness must also be addressed. This study focuses on the use of WhatsApp, a popular mobile messaging application, as a tool for improving EFL (English as a Foreign Language) students' writing proficiency. While previous studies have shown promise with other digital writing tools, there is a lack of research on the specific impact of WhatsApp on EFL writing performance. This study aims to investigate the correlation between the use of WhatsApp text messages and English writing proficiency among EFL university students in Indonesia. Many language learning techniques and methods have been discovered and developed as effective methods for improving English language skills in the form of conventional techniques and methods and novel methods integrated with digital technology. The correlation of technology and writing achievement has been the focus of numerous studies in recent years. As technology becomes more integrated into educational settings, understanding its impact on student writing skills is crucial. Research has yielded inconsistent findings about how technology affects writing proficiency. While some studies demonstrate insignificant or even negative impacts, others discover positive associations. For instance, Goldberg, Russell, and Cook (2003) suggested a positive impact of technology on writing skills. They concluded that the use of word processors improved writing quality, particularly in terms of length, revision, and overall quality of written work. Conversely, *Pew Research Center* (2013) found that as technology facilitates communication and collaboration, it also introduces distractions that can hinder writing achievement. Their survey indicated that students often feel that the brevity encouraged by texting and social media negatively affects their writing skills, leading to a decline in formal writing proficiency. The type of technology used in writing instruction also plays a significant role. However, there are significant challenges associated with integrating technology into writing instruction. Deane (2018) discussed the digital divide, noting that students from lower socioeconomic backgrounds often have less access to technology, which can exacerbate existing achievement gaps. Technology use and writing proficiency are correlated in a

complicated and multidimensional way. Technology can improve writing abilities by providing tools for editing, inventiveness, and fast feedback; nevertheless, issues like type of specific technological tools such WhatsApp and its digital access need to be addressed.

WhatsApp, as the most accessible feature of technological development, has a positive impact on students' motivation to improve their writing proficiency (Alouch et al., 2021; Hamad, 2017; Kheryadi, 2017). The use of WhatsApp as a strategy is said to have the potential to motivate the students to practice writing as a process when they go through the different stages while they are writing on WhatsApp. Several studies also state that the use of the WhatsApp feature has an impact on increasing student motivation, such as this application influencing the role of students to engage and have fun in EFL learning (Dwee & Sharif, 2016). In addition, WhatsApp-based language learning is effective in encouraging students to learn automatically by sharing videos and texting each other (Ramakrisnan, 2017). The existence of the WhatsApp service can facilitate various human needs in various places, such as schools, campuses, and other government institutions, and this feature can also be said to reduce the role of several other media, such as pens, pencils, notebooks, laptops, and computers, in several parts of work (Alouch et al., 2021). In the context of ELT, the massive development of technological features can be optimized to combine the EFL learning process with online mobile phone activities via WhatsApp, in which the results of the combination process have a positive impact: fun, easy, and useful learning and increasing motivation to use WhatsApp services in formal EFL learning (Ajid et al., 2018). The development of technological features also has a big impact on learning development. However, with the presence of new technology, many students seem to ignore the learning process by reducing their ability to interact and collaborate with classmates and teachers (Sulisworo et al., 2017). Through effective use of WhatsApp in ELT, Sulisworo et al. (2021), the use of this digital medium can satisfy students in online learning, but teachers' feedback and level of appreciation need to be improved. Thus, this technological progress must be utilized and developed with various positive creativity for the development of student learning. WhatsApp is inherently used by students who belong to the native digital generation, who were born with various technological facilities, computers, and extensive internet access by using online sources as sources of information and virtual learning techniques in the 21st century (Nur et al., 2023). Each group of students has WhatsApp groups, which function to share important information and communicate between individuals in learning and assignments. Fahala et al. (2022) mentioned the use of WhatsApp in learning to write as a facility that makes learning simpler and more exciting, actively engages in EFL learning, makes it easier to obtain materials more easily, increases writing proficiency, and

makes it a learning medium itself. Furthermore, several studies show that the use of WhatsApp media can be positive for improving English language learning.

WhatsApp's features have a positive impact on language skills, and those have advantages for certain language skills as well as negative impacts on other language skills. As stated, WhatsApp-based writing also does not have a positive impact on the student learning process, such as lack of teacher involvement in controlling the extent of the writing process, students' writing problems cannot be identified, there is a lack of motivation to learn, and students' writing abilities remain low. However, the use of this writing technique can provide opportunities for students to practice writing (Syarif & Zaim, 2020). The correlation of technology and writing achievement is complex and multifaceted. While technology can enhance writing skills through tools that support revision, creativity, and immediate feedback, challenges such as digital access and teacher preparedness must be addressed. Based on the several studies on the correlation of technology and writing achievement and the research claims of WhatsApp for writing performance, it is urgent that researchers explored the correlation between the use of WhatsApp and writing performance in order to establish the theoretical conception of English language learning in the context of EFL. In addition, there have been no scholarly studies on the correlation between WhatsApp use and writing performance. Therefore, researchers were eager to assess the correlation of the use of WhatsApp's text message writing activity with writing performance and the extent of the correlation between the two variables, namely whether the use of WhatsApp has or does not have a correlation with writing performance.

2. Literature Review

2.1. WhatsApp as a web-based platform used as EFL learning medium

WhatsApp is digital software that can be accessed by every smartphone user with a SIM number, hardware, telephone, and internet connection. WhatsApp text messaging is a web-based application and instant messaging that allows people to exchange information using text messages, voice messages, audio calls, video calls, images, and all kinds of documents (Church & de Oliveira, 2013; Ajid et al., 2018). This software has advantages in its use, namely that it is easy, free, fast, comfortable, and becomes a personal communication mode in implementing its features. It works on many platforms; Android smartphones and iPhone systems and free messenger software are widely used by many students to send text and voice messages, images, and videos (Chan & Holosko, 2017). WhatsApp messenger has been equipped with the following features: multimedia, group chat, unlimited messaging, cross-platform interaction, offline messaging, no additional costs, and no PIN or username to enter. Additionally, WhatsApp's special features have the ability to encourage the active participation of EFL students (Baffour-Awuah, 2015).

WhatsApp is the most popular alternative for teaching English and is currently used by 180 countries, with several active users of around 2 billion, making it the second-largest

social network in the world in February 2020 (Dean, 2021). The previous studies revealed that the use of WhatsApp has been a very popular language-learning medium in the last two decades (Ally & PrietoBlázquez, 2014; Davie & Hilber, 2015; Mbukusa, 2018; Mister & Embi, 2016; Rajendran & Yunus, 2021). All the aforesaid previous studies found that the use of WhatsApp can be an effective pedagogical tool in ELT. This condition makes the use of WhatsApp as a learning medium more widespread. The use of this free messenger software has significant potential to support online learning by allowing direct access to a lot of online learning materials and other web-based learning sources and enabling students to be creative and autonomous learners (Ifenthaler & Schweinbenz, 2016). Kheryadi (2017) suggested that teachers must be able to design language learning methods based on mobile applications, WhatsApp to develop speaking, let the EFL students engage in writing activities, assist the students to practice the different stages of writing as a process, direct the application users to use it as an EFL learning method, and WhatsApp is posited as a collaborative learning media in writing practices. The ways the students use WhatsApp as a learning method in a writing activity include planning the ideas, drafting, and publishing the final draft (Alouch et al., 2023). The use of digital-based multimedia such as WhatsApp in certain conditions during the COVID-19 pandemic was effective for teaching the four language skills (Malila & Irwandi, 2022). A basic idea about the use of a technology-based tool, namely WhatsApp, could foster communication and interaction besides EFL learning (Alqahtani et al., 2018). Learning media in the form of internet-based software can be a learning medium that can be done anywhere and at any time (Gon & Rawekar, 2017).

2.2. Writing proficiency-development with digital technology-based models

Technology in the form of ICT in learning facilitates students improved learning more easily, freely, and conveniently because it can be a strategy to overcome language proficiency growth problems in writing skills development. There are many studies suggesting that the use of technology has been introduced to design to foster traditional writing activities (Liu, 2013; Henao, 2017). In addition, teachers using ICT-based strategies in teaching writing can improve EFL students' writing performance, vocabulary, confidence, attitudes, and other language performance (Jose & Abidin, 2015; Hicham & Bachir, 2020). The scientific findings presented by the researchers above revealed that the use of electronic writing treatment significantly contributed to students' writing proficiency (number of words, number of T-units, and number of clauses) and motivated the writers to attempt the electronic writing tasks interactively in the form of online forum discussions. According to Sharadgah (2013), the Internet-Based Instructional Program (IBIP) can develop as well as foster the students' writing.

The technology-based instructional intervention in the EFL classroom indicated the efficacy of online method-based learning in writing class. The EFL students outperformed to improve their writing (Ezza, 2019). The integration of technology tools into academic writing

benefits direct feedback and corrections, grammatical improvement, vocabulary acquisition, and cohesive and coherent essay writing (Zulfa et al., 2023). Then, Jahangard and Norouzizadeh (2020) found that computer-assisted instruction (CAI) led to significant impacts on the students, and the students' levels of proficiency influenced the different effects of the systems of academic writing. The descriptive writing performance in the forms of task responses, coherence, grammatical range, and accuracy, and the lexical resources significantly developed, and the use of TBLT (Task-Based Language Teaching) along with FlipGrid software was innovative and a student-centered learning approach to make more collaborative, interactive, and communicative to produce effective descriptive written products (Robillos & Bustos, 2023). Al Badi et al. (2020) found the impacts of Virtual Writing Tutor (VWT) software on academic writing skills, in which the VWT showed a large positive effect on helping students check the accuracy of writing, such as spelling, punctuation, grammar, and vocabulary.

The students with digital multimodal composition in writing improved in terms of content, communicative achievement, and organization, but not on the language component (Maghsoudi et al., 2022). According to Vincentini and de Oliveira (2018), using technology in writing instruction has three categories of benefits: collaboration and presentation tools (Blogs, fan sites, and social media pages; movie-making and digital story tools; discussion boards and forums; ePortfolios; podcasts; wikis; and online collaborative writing and storing tools); evaluation and feedback tools (Automated Writing Evaluation) tools and annotation tools); and organization tools (Mind Maps & Graphic Organizers; online storyboards; and organization and notetaking tools). The developing technology-based strategy enhanced writing performance and fostered communication and collaboration between teachers and learners. However, Abduh and Khan (2023) revealed that face-to-face (F2F) intervention in writing instruction improved and outperformed the online mode of writing. They argued that the use of the face-to-face model was said to be more comfortable and engaging for participants than the online model of writing classes.

3. Method

3.1. The design of research

The research is a quantitative method involving a correlational research design by examining the correlation of WhatsApp as an EFL learning medium with English writing proficiency. Quantitative research is always related to the process of collecting and analyzing data in purpose of measuring the level of association between two or more variables through the statistical procedures in correlation analysis. It deals with formal, objective information and mathematical data that can be used to assess the correlations of the variables. Thus, the quantitative descriptive study was used to analyze data in the form of students' results from questionnaires and their writing test's score. The quantitative descriptive study is used to

analyze all data: students' scores on the questionnaire, teacher-student questionnaire responses, observation, and the test's outcome.

3.2. The participants

71 students of a computer science study program of Bumigora university who are studying English as a compulsory subject; four language skills including a writing skill. Slovin's formula was used to determine the number of samples using a probability random sampling allowed the researchers to randomly choose the sample size. It is considered as 71 respondents were reasonably sized sample with rather small margin of error will result in a representative sample, which can improve the accuracy as well as the efficiency of the study. This flexibility helps researchers balance the need for precision with practical constraints such as time and resources. By using the random sample technique, 71 samples were obtained, consisting of 35 females and 36 males spread over five classes. Furthermore, the other reasons, these computer science major's students were chosen as the sample under the current study are the uniqueness of the heterogeneous non-English classes where they range from low, medium, and proficient levels of English proficiency along with their ages range between 18 and 20 years old, the students as digital natives, who are very familiar with technology and applications, including WhatsApp, which can be utilized as a medium for writing activity, and WhatsApp as a leading medium for a writing skill learning is appropriate for non-English students in the context of this study.

Table 1. The number and the demographic information of respondents

Semester	Class	N	Samples for Questionnaire	Sample for Writing Test
2 rd	A	50	17	11
2 th	B	60	13	14
2 th	C	55	15	18
2 th	D	40	12	11
2 th	E	45	14	17
Total (n)		71	71	71

3.3. The instruments and procedures of data collection

To obtain quantitative data on the students' attitudes and their writing performance, the researcher employed the perception questionnaire, which was administered to 71 respondents to know their perceptions/attitudes on writing performance. The perception questionnaire consists of nine items, of which eight were valid (r value $>$ r table and 1 item was not valid with $Sig.$ value $>$ 0.05), and it was accepted to be reliable by using Cronbach's alpha, where the reliability is $0.72 >$ 0.61 . These items examined the likeability, effectiveness, attitude,

motivation, ease of use, usefulness, innovation in ELT, and self-learning approach. In determining the questionnaire's five indicator scores, the researcher employed a Likert scale: strongly agree (4.01-5.0), agree (3.01-4.0), medium (2.0-1.0), disagree (1.01-2.0), and strongly disagree (0.5-1.0).

After the questionnaire was validated using a Pearson product moment and its reliability was tested using Cronbach Alpha as elaborated above, a prompt writing, adopted from Noyan and Kocoglu's writing test (2019), done to assess EFL students' writing performance. The prompt test directed the students to take part in social interaction through the WhatsApp group by answering two questions, followed by four sub-questions for each main question. Each student was encouraged to describe as well as elaborate on their answers. This writing test was carried out in two sessions based on the number of questions. The researcher administered question one by asking the sub questions one by one. The topics are about favorite sports and the problems at the university. Before they wrote the responses, they were allowed 10 minutes to brainstorm and compose their own written text manually on paper. Additionally, they were given ample time to write and revise before sending the message text through WhatsApp. The text messages were given to the researcher for assessment and feedback by using the rubric of writing assessment, which is adapted from Jacobs et al. (1981), putting forward six aspects of assessing the students' writing results, namely content, organization, vocabulary, grammar, punctuation, and spelling, each of which is given a score ranging from 1 to 4.

3.4. Data analysis method

This study was designed using correlational research methods. Correlation research is a study that is tested statistically to determine the presence of a trend or pattern consisting of two or three variables or two sets of data that vary consistently. The design of this correlation study aims to know whether WhatsApp software in writing activities has a connection with the students' writing performance and to know how far the significance of writing English text via WhatsApp is correlated with English writing performance. After collecting the data, the data obtained from the three instruments was statistically analyzed using IBM SPSS 16.00. The correlational analysis used the inferential analysis to compare the groups in terms of the variables. Thus, an inference can be drawn from the sample of the population to estimate whether the two variables have a correlation with each other and to what extent WhatsApp as a tool of English writing activity correlates with writing performance. To indicate a strong relationship between the variables, the significance value is < 0.05 . If the significance value is > 0.05 , then the variables have no relationship. Whereas, the correlation coefficient results can be presented as follows: if the correlation coefficient result is close to 1.00 or -1.00, the variables have a strong relationship. If the correlation coefficient result is close to 0.00, the variables have no relationship. Thus, to describe the relationship and the strength of the relationship among three variables, the researcher used Pearson product moment correlation.

To determine the level of coefficient's correlation between the use of WhatsApp in a writing learning activity and the students' writing performance, a guideline of correlation levels in the coefficient correlation (r), can be presented, as in:

Table 2. The guideline of the correlation coefficient interpretation

Correlation Coefficient's Scores	Interpretation
0.00-0.199	Very low
0.20-0.399	Low
0.40-0.599	Medium
0.60-0.799	Strong
0.80-1.00	Very strong

4. Findings

Here, the researcher revealed the findings of a relationship between the independent variable and dependent variable by answering the research questions: whether the use of WhatsApp software in writing English correlates with EFL students' writing performance, and to what extent the strength of the relationship between the two variables. Before the researcher explained the findings about the variables' relationship in the research by using a correlation test, however, the normality test and the linearity test must have been conducted.

4.1. The normality and linearity tests

The author revealed the results of the statistical analysis of the normality of the data used to find out the correlation between the use of WhatsApp as a tool in EFL students' writing activities (X) and EFL writing performance (Y).

Table 3. The normality test of data

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		71
Normal Parameters ^a	Mean	.0000000
	Std. Deviation	4.39353322
Most Extreme Differences	Absolute	.157
	Positive	.121
	Negative	-.157
Kolmogorov-Smirnov Z		1.319
Asymp. Sig. (2-tailed)		.062
a. Test distribution is Normal.		

Table 1 describes the statistical measurement of the results of the normality test by using Kolmogorov-Smirnov (K-S), which serves to assess whether the data is distributed normally or not. To find out whether the data is normal or not, based on the data in the table above, it is mentioned that the asymp. Sig. (2-tailed) $0.62 > 0.05$. It means that the residual data is distributed normally. The next linearity test aims to determine whether the data from the variables is linear or not.

Table 4. Linearity test of the dependent variable (Y) and independent variable (X)

			ANOVA Table				
			Sum of Squares	df	Mean Square	F	Sig.
		(Combined)	3293.296	15	219.553	10.963	.000
EFL Writing performance	Between	Linearity	3043.513	1	3043.513	151.977	.000
* The use of WA as a Tool in Writing Act.	Groups	Deviation from Linearity	249.783	14	17.842	.891	.573
	Within		1101.436	55	20.026		
	Total		4394.732	70			

The linearity test of the variables is a known linear measurement of the value of the linearities, showing that the level of significance is 0,000 or the p-value is lower than the α value 0.05. The relationship between the two variables can also be seen from the sig. deviation from linearity of $0.573 > 0.05$.

4.2. The correlations of the use of WhatsApp and writing performance

Table 3 describes the correlation statistics of two variables, namely the use of WhatsApp as a tool in students' writing activities and their writing achievement, performed on 71 EFL university students as the sample of the current research. As a result, the distribution of scores will be displayed in Table 5.

The findings explained the relationship between the two variables, i.e., whether the use of WhatsApp as a tool in writing activities is correlated or not, based on the results of the statistical analysis showing the relationship between these two variables, as shown by the sig. value $0,000 < 0.05$. Then the level of the correlation between the variables is shown with a very strong relationship ($r = 0.832$). So, this result answered the second research question about how far the correlation between the independent variable and dependent variable is indicated by the value of 0.832, which shows that the two variables move in parallel directions in which the more often learners use the medium WhatsApp as a tool in their writing activities, the higher their English writing achievements they acquired.

Table 5. The product moment-correlation of the variables

Correlations			
		The use of WA as a tool in writing activity	Writing performance
The use of WA as a tool in writing activity	Pearson Correlation	1	.832**
	Sig. (2-tailed)		.000
	N	71	71
Writing performance	Pearson Correlation	.832**	1
	Sig. (2-tailed)	.000	
	N	71	71

** . Correlation is significant at the 0.01 level (2-tailed).

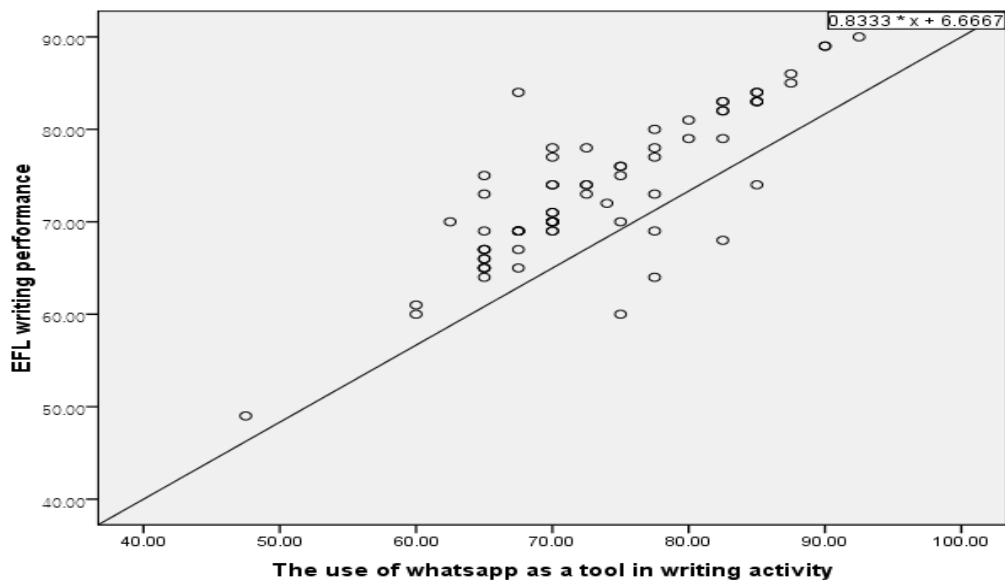


Figure 1. Scatter Plot Diagram of the Use of WhatsApp and EFL Students' Writing

To strengthen the correlation analysis of the independent variable with the dependent variable, based on the scatter plot diagram displayed above in the form of a visualization result, all the dots form a straight-line pattern from left down to upward right. The data showed that the visualization scores of the use of WhatsApp as a tool in writing activities and the student's writing performance showed a very high correlation coefficient of 0.832. So, the researcher could predict that the independent variable correlated with or affected the dependent variable. So, there is a positive relationship between the independent variable and dependent variable. If the use of WhatsApp as a writing practice medium is continuously improved, then the EFL student's writing achievement will increase. Because the correlation between these two variables is strong, the regression model assumption in this study is fulfilled. Furthermore, the researcher concluded by testing the hypothesis, namely Ho. There

is no correlation between the use of WhatsApp as a tool for writing activities and EFL writing performance, and H_1 : there was a relationship between using WhatsApp to write learning activities and EFL writing performance. The test criteria for H_0 and H_1 are presented, namely, if sig. (2-tailed) > 0.05, H_0 is accepted; if sig. (2-tailed) < 0.05, H_0 is rejected. From the output of the statistical analysis of the correlation, the sig. (2-tailed) is 0,000. Because the sig. value (2-tails) is < 0.05 (0.000 < 0.05), H_0 is rejected, it can be concluded that the use of WhatsApp as a tool in English writing activities correlates with the student's writing performance.

5. Discussion

Before conducting the correlation test, use WhatsApp as a tool in English writing as the independent variable and the students' English writing performance as the dependent variable. The use of this writing technique has been used as a written means of communication, such as sharing information about materials, assignments' deadlines, projects, and another writing class activity (Nur et al., 2023), and other advantages for particular purposes could be achieved through WhatsApp as a public communication means (Andayana et al., 2022). To more widely-comprehensive functions of social media, like WhatsApp as a tool to coordinate and interact with various people (Darmawan et al., 2019). Researchers saw this phenomenon as very interesting for developing an effective method or technique for writing intuitions. WhatsApp can be an effective mobile learning tool for writing development and significantly assists in the teaching of academic writing (Syarif & Zaim, 2020; Kondal & Jeevanandam, 2020). The utility of some digital platforms, such as WhatsApp, is claimed to have positive impacts, which can help students learn through virtual class interaction, build up the independence of learning, develop language components, and offer peer review (Suadi, 2021; Ma'ruf et al., 2019). Therefore, using and evaluating WhatsApp as a writing technique that can have a positive impact on the development of students' writing skills must be considered. The WhatsApp technique can be used as an informal writing exercise between peers in an online WhatsApp community, or the writing exercise through the WhatsApp software can also be considered to be pre-writing. It can provide opportunities to practice language as written communication (Syarif & Zaim, 2020). The pre-writing activity allows students to convey various types of information and pour out all ideas through writing in English without having to be restricted by the writing format and template of the scientific article. The use of WhatsApp's independent conversation can create confidence, enthusiasm, and happiness to explore writing performance, language skills, and language knowledge (Mufanti, 2014; Hanif & Sajid, 2019). This type of software-based writing and instruction can increase confidence and motivation in writing because the writing technique via WhatsApp belongs to the autonomy learning technique in writing activities.

From the description of the phenomena in writing instructions conducted in the university students, the researcher was interested in finding out whether there was a correlation between

the use of writing techniques using WhatsApp software used as a medium in writing activities fostering the students' writing outcomes in the classroom and their academic writing tasks or thesis writing (Ahmad et al., 2020; Hasan & Ahmed, 2018; Hafif & Sajid, 2019; Noyan & Kocoglu, 2019). This writing model has been done extensively, and its effectiveness has been observed, as indicated by the learning outcomes. The use of digital media in learning English has several advantages, namely that it makes it easier for students to access materials and information, is easy to use as a medium for language learning, has unlimited spaces and times, and has inexpensive costs (Ma'ruf et al., 2019). On the other hand, the use of the WhatsApp technique facilitates learners using technology that can be applied and accessed by anyone. WhatsApp can cultivate a sense of confidence to reveal any important ideas or information that you want to pass on in person through a written message (Hanif & Sajid, 2019). These writing techniques can also enhance the motivation or interest in writing of students who are not previously accustomed to writing or sharing information using English (Norazlan et al., 2021). The use of the writing technique model provides flexibility in the way students take full control of the learning process to build their own capacity and abilities to achieve their goals. This digital software is identified as the implementation of autonomy learning as part of the concept of student-centered learning. Captivating learning autonomy inside and outside the classroom is a very important and effective language-learning strategy (Lyddon, 2016).

To convey the findings of the research, the researcher needs to answer the two problem formulations under this study, aiming to find out whether the two research variables are related or not and to explain the extent of the correlation between these two variables. Based on the findings from the statistical correlation analysis of the two variables, namely the use of the WhatsApp application as an English writing technique, it was found that there is a positive correlation or parallel correlation with the EFL writing achievement. Then, the level of closeness of the relationship between the writing technique via WhatsApp and the EFL students' writing performance is at a very positive level, meaning that they have a very strong correlation, in which the more students use writing techniques via WhatsApp in learning and writing activities, the higher the achievements or results they get. Based on the hypothesis already tested that the correlation of the variables is very strong, it showed that there is an indication of the use of WhatsApp's effectiveness towards writing proficiency in tertiary students. The use of WhatsApp affects and enhances the students' language skills, rapport, and motivation in developing their writing through three techniques: brainstorming, group drafting, teachers' feedback, and starter-quick writing. peer feedback and information gathering, elaboration exercises, and checklists (Susanti & Tarmuji, 2016). The research hypothesis showed that the relationship between writing techniques via WhatsApp is positively related to students' writing achievements and showed a very positive relationship. Hypothesis testing was proven by H_0 being rejected and H_1 being accepted, which means that the use of English writing techniques via WhatsApp is good for writing activities in the

classroom or as a tool for writing activities outside the classroom. It can foster students' independence of learning, autonomy of learning, and self-efficacy. WhatsApp is used to improve linguistic knowledge, learn independently, and collaborate with others (Putri, 2019; Kurniasari et al., 2021). Then, this technique can be used as a pre-writing activity learning technique before entering the writing program, and having an important role in the process of forming students' writing skills and capacity in the stages of learning to write. Besides, writing techniques via WhatsApp can be an additional instrument used to practice writing on various types of topics or themes discussed in WhatsApp group forums or in interpersonal WhatsApp messaging text interactions.

6. Conclusion

This study revealed the findings of the relationship between the use of writing techniques via WhatsApp and EFL students' writing achievements. This study found that there was a parallel relationship between the use of WhatsApp and writing achievement. The level of relationship between these two variables was shown with a very positive result and a correlation coefficient value of 0.832. So, the researcher can infer that the use of writing techniques via WhatsApp, both in writing activities in the classroom and as a tool or instrument in pre-writing activities and writing training, contributes very positively to writing performance. Thus, the more students use the writing technique via WhatsApp in every writing lesson, the greater the achievement of EFL students. This study has several limitations that need to be considered. First, the sample is not representative, so the generalizability of the results is locally limited. Secondly, the study only focused on the correlation between WhatsApp usage and writing skills, ignoring other factors that may be influential. The correlation method cannot determine the cause-and-effect relationship, so the improvement in writing ability may be caused by other factors. The further research needs to strengthen the design by using Randomized Controlled Trials and controlling for other variables. The research sample should be enlarged and better represented. Data analysis needs to be deepened by collecting detailed data on WhatsApp usage and conducting qualitative analysis. The research focus should be broadened to examine the impact on other aspects of writing skills and compare with other tools. Contextual factors such as culture, policy and internet access need to be considered. More research is needed to fully understand the impact of WhatsApp on writing skills.

References

- Aburezeq, I. M., & Ishtaiwa, F. F. (2013). The impact of WhatsApp on interaction in an Arabic language teaching course. *International Journal of Arts & Sciences*, 6(3), 165-180.
- Abduh, M.Y. & Khan, M.O. (2023). The effects of the online versus face-to-face (F2F) modes of teaching on the academic achievement of EFL learners in writing skills

- courses. *World Journal of English Literature*, 13(2), 479-485.
- Ahmad, S., Zulfikar, T. & Hardiana, F. (2020). The use of social media WhatsApp among English education students for solving thesis writing problems. *Humanities & Social Sciences Reviews*, 8(3), 447-455. <https://doi.org/10.18510/hssr.2020.8348>
- Ajid, L.H., Reny, R., Yunita, D.U., & Dwi, S. (2018). The use of WhatsApp in collaborative learning to improve English teaching and learning process, *International Journal of Research Studies in Educational Technology*, 7(1), 29-35.
- Al Badi, A.A., Osman, M.E.T., & Al-Mekhlafi, A.M. (2020). The impact of virtual writing tutor on writing skills and attitudes of Omani college students. *Journal of Education and Development*, 4(3), 101-116. DOI:10.20849/jed. v4i3.828
- Ally, M. & Prieto-Blázquez, J. (2014). What is the future of mobile learning in education? mobile learning applications in Higher Education [Special Section]. *Revista de Universidad y Sociedad del Conocimiento (RUSC)*, 11(1), 142-151. <http://dx.doi.org/10.7238/rusc.v11i1.2033>
- Alouch, M., Ganapathy, M., & Ai Lin, D. T. (2021). Using WhatsApp to promote ESL students' writing. *Asian Journal of English Language and Pedagogy*, 9(2), 5465. <https://doi.org/10.37134/ajelp.vol9.2.5.2021>
- Alqahtani, M.S.M., Bhaskar, C.V., Elumalai, K.V., & Abumelha, M. (2018). WhatsApp: an online platform for university-level English language education, *Arab World English Journal (AWEJ)*, 9(4), 108-121. <https://dx.doi.org/10.24093/awej/vol9no4.7>
- Andayana, M.N.D. (2022). The effectiveness of WhatsApp social media use as a public communication means in tune village, Tobu district, TTS district. *Journal of Tourism, Economics and Policy*, 2(3), 213-225. <https://doi.org/10.38142/jtep.v2i3.484>
- Baffour-Awuah, E. (2015). Institutional case-based study on the effect of research methods on project work in the curriculum of mechanical engineering programmes in Ghanaian polytechnics. *Journal of Education and Practice*, 6(30), 20-32.
- Chan, C., & Holosko, M. J. (2017). The utilization of social media for youth outreach engagement: a case study. *Qualitative Social Work*, 16(5), 680-697. <https://doi.org/10.1177/1473325016638917>
- Darmawan, F., Fardiah, D. & Rinawati, R. (2019). Utilization of social media in developing community-based internet on village. *2nd Social and Humaniora Research Symposium (SoRes)*, 277-282.
- Davie, N. & Hilber, T. (2015). Mobile assisted language learning: Student attitudes to using smartphones to learn English vocabulary. *Proceeding of the 11th International Conference Mobile Learning*, 70-78.
- Dean, B. (2023, December 12). *WhatsApp 2021 users' statistics: how many people use WhatsApp?* Retrieved March 6, 2024, from <https://backlinko.com/WhatsAppusers>
- Dwee, C. & Sharif, N. (2016). What's up with WhatsApp: writing on the go. *Conference session Presented at the Malaysian English Language Teaching Association (MELTA)*

25th International Conference, 1-10

- Ezza, E-S., Alhuqail, E. & Elhussain, S. (2019). Technology-based instructional intervention into an EFL writing classroom. *Cypriot Journal of Educational Science*, 14(4), 507-519. <https://doi.org/10.18844/cjes.v11i4.3904>
- Fahala, F., Talib, A., & Tahir, M. (2022). The contributions of WhatsApp group as English writing medium for high school students during the covid-19 pandemic. *Journal of Technology in Language Pedagogy (JtechLP)*, 1(2), 96-109.
- Gon, S., & Rawekar, A. (2017). Effectivity of e-learning through WhatsApp as a teaching learning tool. *MVP Journal of Medical Science*, 4(1), 19-25.
- Hamad, M. (2017). Using WhatsApp to enhance students' learning of English language "experience to share". *Higher Education Studies*, 7(4), 74-87.
doi:10.5539/hes.v7n4p74
- Hanif, N. & Sajid, M. (2019). Usefulness of WhatsApp in the process of English language learning among undergraduate students: a perception study. *Journal of Communication and Cultural Trends (JCCT)*, 1(2), 27-42.
<https://doi.org/10.32350/ject.12.03>
- Hasan, A.Q.A & Ahmed, S.S. (2018). The impact of WhatsApp on learners 'achievement: a case study of English language majors at King Khalid University. *International Journal of English Language Education*, 6(2), 69-81.
<https://doi.org/10.5296/ijele.v6i2.13743>
- Hicham, B. & Bachir, B. (2020). Using writing assistive technology to improve EFL university student's performance. *Quarterly of Iranian Distance Education Journal*, 2(2), 55-68.
- Ifenthaler, D., & Schweinbenz, V. (2016). Students' acceptance of tablet PCS in the classroom. *Journal of Research on Technology in Education*, 48(4), 306-321.
<https://doi.org/10.1080/15391523.2016.1215172>
- Jacobs, H., Zinkgraf, S., Wormuth, D., Hartfiel, V., & Hughey, J. (1981). *Testing ESL composition: A practical approach*. Newbury House.
- Jahangard, A. & Norouzizadeh, M. (2020). An online system's effect on Iranians' EFL academic writing performance across different proficiency levels. *Journal of English language Teaching and Learning*, 12(25), 149-173.
- Jose, J. & Abidin, M.J.Z. (2015). Promoting EFL writing through ICT integration with special focus on electronic writing in Oman. *The Journal of English Language Teaching*, 57(5), 13-23.
- Kondal, B. & Jeevanandam, T. (2020). Whatsapp as a tool for developing academic writing among ESL students. *International Journal of English and Studies (IJOES)*, 2(5), 75-83.
- Kheryadi, (2017). The implementation of "WhatsApp" as a media of English language teaching. *LOQUEN*, 10(2), 1-13.

- Kurniasari, S., Mulyati, T. & Lestari, S.D. (2021). The influence of WhatsApp group on descriptive text writing ability of the tenth-grade students of SMK Al-Achyar in the 2019/2020 academic year. *LUNAR (Language and Art)*, 5(1), 203-210.
- Lyddon, P.A. (2016). Mobile-assisted language learning and language learner autonomy. In S. Papadima-Sophocleous, L. Bradley, & S. Thouësny (Eds), *Short papers from EUROCALL 2016* (pp. 302-306). Research-publishing.net.
<https://doi.org/10.14705/rpnet.2016.eurocall2016.579>
- Ma'ruf, Z., Fadilah, N., Basofi, P., & Akmal. (2019). English Students' Perceptions of Using WhatsApp in Paragraph Writing Class. *International Journal of Scientific & Technology Research*. 8(10), 3054-3059.
- Maghsoudi, N., Golshan, M., & Naeimi, A. (2022). The impact of digital multimodal composition on writing ability of Iranian EFL learners with respect to their self-efficacy. *Journal of Modern Research in English Language Studies*, 9(1), 151-183.
<https://doi.org/10.30479/jmrels.2020.13799.1698>.
- Malila, R. & Irwandi. (2022). The Effectiveness of using WhatsApp in English language Teaching during the Covid-19 pandemic for junior high school students. *JET: Journal of Education and Teaching*, 3(2), 185-194.
- Mbukusa, N. R. (2018). Perceptions of students on the use of WhatsApp in teaching methods of English as second language at the University of Namibia. *Journal of Curriculum and Teaching*, 7(2), 112-119. <https://doi.org/10.5430/jct.v7n2p112>
- Mistar, I. & Embi, M.A. (2016). Students' perception on the use of WhatsApp as a learning tool in ESL Classroom. *Journal of Education and Social Sciences*, 4(June), 96-104.
- Mufanti, R. (2014). Establish a WhatsApp conversation between students to explore writing. *International Conference TECHLIN UNESA*, 1-9
- Mulyasari, F. (2019). The impact of WhatsApp group on undergraduate students' writing in the Indonesian tertiary context. *The 3rd Indonesian International Conference on Linguistics, Language Teaching, Literature and Culture (The 3rd IICLLTLC)*, 263-269.
- Norazlan, N.A., Hashim, H.U., Yunus, M. Md. & Hashim, H. (2021). WhatsApp stickers: a reward system to boost students' motivation in learning grammar. *International Journal of Academic Research in Business & Social Sciences*, 11(12), 323-332.
<https://doi.org/10.6007/IJARBS/v11-i12/11768>
- Noyan, E. & Kocoglu, Z. (2019). Developing EFL writing skills through WhatsApp dialogue journaling. *Advances in Language and Literary Studies*, 10(2), 38-48.
- Nur, D.R., Widido, P., & Putro, N.H.P.S. (2023). Digital native's generation enjoyment using online resources as virtual learning environment in learning English speaking. *International Journal of Language Education*, 7(4), 602-614.
<https://doi.org/10.26858/ijole.v7i4.44573>.
- Ramakrishnan (2017). Use of WhatsApp for English language proficiency among B.ED.

- trainees. *International Journal of Research-Granthaalayah*, 5(9). 1-6.
[https://doi.org/10.29121/granthaalayah.v5.i9\(SE\).2017.2245](https://doi.org/10.29121/granthaalayah.v5.i9(SE).2017.2245)
- Rajendran, T. & Yunus, M.M. (2021). A systematic literature review on the use of mobile assisted language learning (MALL) for enhancing speaking skills among ESL and EFL learners. *International Journal of Academic Research in Progressive Education and Development*, 10(1), 586-609. <http://dx.doi.org/10.6007/IJARPED /v10-i1/8939>
- Robillos, R. J., & Bustos, I. G. (2023). Unfolding the potential of technology-enhanced taskbased language teaching for improving EFL students' descriptive writing skill. *International Journal of Instruction*, 16(3), 951-970.
<https://doi.org/10.29333/iji.2023.16351a>
- Sharadgah, T.A. (2013). Writing in an internet-based environment: improving EFL students' writing performance through text-based chat. *International Journal of Humanities and Social Science*, 3(14), 258-266.
- Suadi. (2021). Students' perceptions of the use of zoom and WhatsApp in ELT amidst covid19 pandemic. *SALEE (Study of Applied Linguistics and English Education)*, 2(1), 51-64. DOI:10.35961/salee.v2i01.212
- Sulisworo, D., Yunita, L., & Komalasari, A. (2017). Which mobile learning is more suitable on physics learning in Indonesian high school? *International Journal of Recent Contributions from Engineering, Science & IT*, 5(1), 97-104.
- Sulisworo, D., Salem, M. A., & Ola, R. B. M. I. (2021). Effects of WhatsApp based online learning to students' satisfaction during COVID-19 mitigation in rural area of Indonesia. *Universal Journal of Educational Research*, 9(2), 299-309.
10.13189/ujer.2021.090206
- Susanti, A. & Tarmuji, A. (2016). Techniques of optimizing WhatsApp as an instructional tool for teaching EFL writing in Indonesian senior high schools. *International Journal on Studies in English Language and Literature (IJSELL)*, 4(10), 26-31.
<http://dx.doi.org/10.20431/2347-3134.0410005>
- Syarif, M. & Zaim, M. (2020). The use of WhatsApp messaging as mobile learning in developing writing skills. *Proceedings of 8th International Conference on English Language and Teaching (ICOELT)*, 83-87.
- Vencentini, C. & de Oliveira, L.C. (2018). Using technology tools in writing Instruction. *NYS TESOL Journal*, 5(2), 44-51.
- Zulfa, S., Dewi, R.S., Hidayat, D.N., Hamid, F., & Defianty, M. (2023). The use of AI and technology tools in developing students' English academic writing skills. *The proceedings: Annual International Conference on Edecation*, 47-63.