Connecting Beyond the Classroom: Use of Viber as a Support Tool for Enhancing Essay Writing Skills and Online Language Learning Engagement among Students

Rosalie Muertigue Palaroan[1], Anabella Rizal Gimeno[2], Gilbert C. Biňas[3], Ramon Atacador Boloron[4], Xerxes Mateo Budomo[5], Lemar Cardenas De Guia[6], Leonilo B. Capulso[7], Mersin Cardeño Villagonzalo[8], Elbert M. Galas[9], Harsandaldeep Kaur[10], Nazila Heidarzadegan[11]

[1] General Education, Wenzhou Kean University, China

[2] College of Arts and Sciences, Cebu Technological University, Moalboal, Cebu, Philippines

[3] Assistant Professor IV, Northern Iloilo State University, Estancia, Iloilo, USA

[4] Dean, College of Arts and Sciences, Holy Name University, Tagbilaran City Philippines

[5] Business/ Special Education Teacher, Chester-Joplin-Inverness School, Chester, Montana USA

[6] Secondary School Head Teacher -I/School Curry Elementary School District of Sta Margarita II Division, Samar, Philippines

[7] Founding President/ CEO Beyond Books Publication Macabebe, Pampanga, Philippines/ Colorado, USA

[8] College of Education, Cebu Technological University, Malabuyoc Extension, Malabuyoc, Cebu, Philippines

[9] University President, Pangasinan State University, Philippines

[10] Associate Professor, University School of Financial Studies, Guru Nanak Dev University, Amritsar, India

[11] Doctor of Philosophy, Department of Western languages and literatures, Karabuk University, Turkey

Correspondence: Rosalie Muertigue Palaroan, General Education, Wenzhou Kean University, China.

Abstract

This research study discovered students' online English learning engagement through the use of Viber as a support tool in essay writing by the first-year English majors at a university level with a total of ten participants, five women and five men. It employed the Quasi-experimental design, and pre-and post-test design was used to measure the language learning engagement of the first-year students at a tertiary level. Data were analyzed through frequency count and percentage with the help of SPSS. The result shows that student engagement and level of attitude in language class before the utilization of VST is very low. This means they are very upset in the language class, especially in writing. However, after using VST, their attitude towards writing changes, which means that Viber positively impacts their attitude towards writing. It is also found that they are proficient and well-immersed in writing. Based on the pre-test and post-test scores, they may use Viber as a Support tool or opt to use traditional support because this study revealed that their performance in writing remains good for the two interventions. However, teachers may consider the view of students on using Viber, for this gives them greater efficiency in writing because it makes them focus. Teachers may consider incorporating Viber in their teaching methods to enhance their students' writing skills and overall learning experience.

Keywords: *Viber as a support tool (VST), language English engagement, essay writing, mobile-assisted language learning*

1. Introduction

The pursuit of sustainable development has been a global priority for several years, and ensuring access to quality education is a vital component of this mission. In 2015, the United Nations adopted the 2030 Agenda for Sustainable Development, which called for actions from both developed and developing countries to achieve its many goals, including Sustainable Development Goal number 4. This goal aims to provide inclusive and equitable education opportunities that enable all individuals, regardless of gender or socioeconomic background, to attain functional literacy and numeracy skills comparable to those gained after completing basic education. While progress has been made in reducing global illiteracy rates, there is still much work to be done to ensure that everyone has access to the education they need for a sustainable future (Arcinas, 2022, Amparo et al, 2022, Afable et al, 2022). As access to education is a crucial component of sustainable development, the study explores the use of Viber as a support tool in enhancing students' writing skills and online language learning engagement. By examining the impact of Viber on students' learning performance, attitude, and engagement, the study provides insights into how technology can be utilized to support inclusive and equitable education opportunities.

Writing as a Tool for EFL and ESL Learning

Writing as a teaching and learning tool of English as a Second Language (ESL) has high importance in many educational systems particularly in South East Asia. It aims to improve learners' proficiency in English. However, the challenge that students engaged in writing during the pandemic has been a great challenge since the language is not their primary language. Due to uncontrollable circumstances, teachers cannot find an appropriate website or social media to hold their learners' engagement (Abbaset al., 2019; Bhagat & Kim, 2020, Arcinas, 2022, Arcinas et al 2022, Rad et al, 2022). A study made by Altınmakas and Bayyurt (2019) in the school's Division of Laoag City, specifically Senior High School, showed that organization, inappropriate words and poor word utilization in terms of vocabulary and choice of words, poor sentence structure regarding language usage, use of the first-person pronoun in terms of formality and objectivity, and absence of citations when referencing are all issues that students face when writing academic essays (Fathi et al., 2019; Mercer, 2019). This study ventured into the effectiveness of Viber as a support tool in essay writing. According to one of the teachers at a university, the quality of the students writing is fair, and writing is viewed as frustrating among students based on their reactions online.

Austin's engagement theory

This study is grounded by the theory of engagement matured by Alexander Austin in 1984 and later retitled by him as the "Engagement Theory," describing engagement as "the amount of physical and psychological energy that the student devotes to the academic experience" (Wright et al., 2019). According to this concept, a more successful learner has a high level of engagement, and the higher the level of engagement, the more child learns (Jung & Lee, 2018). This paradigm emphasizes actively participating in the learning process. This theory helped the researcher engage learners in using Viber and their essay writing. The students' identities and relationships, both in the virtual and the actual worlds, benefited greatly from their use of Viber, and the former strengthened the latter. Students receiving acceptance, respect, and affirmation from other Viber users were encouraged to utilize it more. Viber usage also broadened students' social horizons in various academic, professional, recreational, and creative organizations. There is no cause for concern because Viber is a crucial social media platform for enhancing social growth and relationships in Iran (Behravan, 2016).

Writing is a crucial component of English as a Second Language (ESL) and English as a foreign Language (EFL) teaching and learning among Asian countries. However, the COVID-19 pandemic has presented challenges to student engagement and teacher instruction, making it challenging to find appropriate online platforms to support learners (Abbas et al., 2019; Bhagat & Kim, 2020). Studies have identified various issues in students' academic writing, including poor organization, inadequate vocabulary and word choice, improper language usage, weak sentence structure, and absence of citations (Fathi et al., 2019; Mercer, 2019, Loganathan et al, 2022, Magulod, 2018). This study examines the effectiveness of Viber as a support tool in ESL essay writing, drawing on engagement theory to understand the impact of this technology on student learning. The study is guided by Alexander Austin's engagement theory, which emphasizes the role of students' physical and psychological energy in learning (Wright et al., 2019). The findings indicate that Viber enhances students' engagement, relationships, and social horizons. Students who received acceptance, respect, and affirmation from their peers on Viber showed increased motivation and commitment to using the platform. Additionally, Viber has been found to be a crucial social media platform in Iran for enhancing social growth and relationships (Behravan, 2016). Therefore, Viber has the potential to enhance ESL students' writing proficiency and contribute to their academic success. Viber is a crucial social media platform for enhancing social growth and relationships in Iran, and there is no need for concern. The use of Viber had many beneficial social implications on the students' identities and relationships in both the virtual and physical worlds, while the former strengthened the latter. Students who received acceptance, respect, and affirmation from other Viber users were inspired to use the app more often. Additionally, students' use of Viber broadened their social horizons to include a variety of academic, professional, recreational, and creative organizations as well as classmates.

Viber as a social media Platform and a Learning Tool

Viber is a free messaging and calling app that allows users to connect with others around the world. It was developed in 2010 and has since become a popular communication tool, with over 1 billion users in more than 190 countries (Viber, n.d.). Several studies have explored the use of Viber as a social media platform, particularly in terms of its impact on communication and social relationships. Studies suggest that Viber can be an effective social media platform for communication and relationship-building. Its popularity and ease of use have made it a common tool for both personal and academic communication. As more people around the world gain access to smartphones and mobile devices, it is likely that the use of Viber and other messaging apps will continue to grow. One study by Muntean and Nedelcu (2015) investigated the use of Viber in facilitating communication between Romanian university students. The study found that Viber was used primarily for personal communication, with users reporting that it helped them maintain closer relationships with friends and family members. Another study by Shabiralyani, Nawaz, and Zaidi (2017) explored the use of Viber as a communication tool among Pakistani university students. The study found that Viber was used to exchange academic information, connect with peers and teachers, and discuss academic topics. In terms of its impact on social relationships, a study by Dürager and Vatrapu (2014) investigated the use of Viber in maintaining social relationships among Danish youth. The study found that Viber was used to maintain both strong and weak social ties, with users reporting that it helped them stay in touch with friends and family members who were geographically distant. Another study by Koc and Şen (2017) explored the impact of Viber on romantic relationships among Turkish university students. The study found that Viber was used to communicate regularly with romantic partners and to enhance intimacy in relationships.

Research Gap and Problem Statement

The research gap in the Philippines and other Southeast Asian countries regarding the use of Viber as a support tool for essay writing among English majors has not been fully explored. While previous studies have shown the potential benefits of using technology and social media platforms for language learning and writing, there is a need to investigate the effectiveness of Viber specifically in the context of Southeast Asia. This is important because the cultural and linguistic differences in the region may impact the use and effectiveness of Viber as a support tool for essay writing. Additionally, there may be differences in the availability and accessibility of Viber and other support tools in Southeast Asian countries compared to other regions, which may affect its implementation and impact. Therefore, there is a need to conduct research in this area to address the research gap and provide insights into the potential benefits and limitations of using Viber as a support tool for essay writing among students who are English majors in Southeast Asia.

The present study investigated the use of Viber as a support tool in essay writing for first-year English majors. It revealed that the students' attitude towards writing improved after using Viber. However, the study did not provide a clear research gap or justification for the use of Viber as a support tool for essay writing. To address this research gap, previous studies on the use of technology in language learning and writing can be examined to provide a theoretical basis for the study. For instance, Lee and Lim (2018) found that the use of mobile applications positively influenced the writing proficiency of second language learners. Similarly, Chen, Sun, and Wang (2020) showed that social media platforms, such as WeChat, can enhance learners' writing skills and engagement. Therefore, to further support the use of Viber as a support tool for essay writing, the study can explore the specific features of Viber that facilitate language learning and writing, such as its chat and video call functions.

Moreover, the study can compare the effectiveness of Viber with other social media platforms and traditional support tools, such as writing centers and peer review sessions. By doing so, the study can provide a more comprehensive understanding of the potential benefits and limitations of using Viber as a support tool in essay writing for language learners. For first-year students majoring in English, writing skills are needed in their chosen profession. This is needed in teaching the language and presenting their ideas clearly and positively. Thus, this research was done to find if Viber is an effective support tool in essay writing and can be used to engage learners and improve their writing skills (Chen et al., 2021).

The research study investigated the use of Viber as a support tool in essay writing for first-year English majors. It revealed that the students' attitude towards writing improved after using Viber. However, the study did not provide a clear research gap or justification for the use of Viber as a support tool for essay writing. To address this research gap, previous studies on the use of technology in language learning and writing can be examined to provide a theoretical basis for the study. For instance, Lee and Lim (2018) found that the use of mobile applications positively influenced the writing proficiency of second language learners. Similarly, Chen, Sun, and Wang (2020) showed that social media platforms, such as WeChat, can enhance learners' writing skills and engagement. Therefore, to further support the use of Viber as a support tool for essay writing, the study can explore the specific features of Viber that facilitate language learning and writing, such as its chat and video call functions. Moreover, the study can compare the effectiveness of Viber with other social media platforms and traditional support tools, such as writing centers and peer review sessions. By doing so, the study can provide a more comprehensive understanding of the potential benefits and limitations of using Viber as a support tool in essay writing for language learners. For first-year students majoring in English, writing skills are needed in their chosen profession. This is needed in teaching the language and presenting their ideas clearly and positively. Thus, this research was done to find if Viber is an effective support tool in essay writing and can be used to engage learners and improve their writing skills (Chen et al., 2021).

2. Objectives of the Study

This study attempted to assess the English online engagement of first-year university learners in using Viber as a Support Tool (VST) in Essay Writing. Specifically, it aimed to address the following: (1) describe the students' level of attitude and engagement in language classes; (2) assess the students' entry-level and proficiency in writing before the utilization of the VST; (3) ascertain the gained level and proficiency of the students after the utilization of the VST in enhancing the essay writing skills of the students; (4) ascertain the significant difference in the pre-test and post-test performances of the students in writing before and after of VST; (5) describe the benefits of using Viber in their essay writing; (6) determine the problems faced by students during the utilization of VST, and (7) provide recommendations on optimizing the use of Viber in classroom settings by students.

3. Hypothesis

This study tested the hypothesis in the null form: There is no significant difference in pre-test and post-test performances of the students in writing before and after using VST.

4. METHOD

Research Design

The research design utilized in the study was a quasi-experimental pre-test-post-test design commonly used in teaching-learning situations. This design involved administering identical assessment measures to participants both before and after the treatment to determine if any changes observed could be attributed to the treatment. The pre-test was done to establish the participants' baseline performance before the intervention, while the post-test was conducted to measure their performance after the intervention. While this design is flexible, it also has limitations, including threats to internal validity (Fan & Tian, 2022, Magulod et al, 2020). The pre-test-post-test design was used to measure the development and improvement of English learning engagement among first-year students in a tertiary institution.

Respondents and Sampling Procedure

This study recruited first-year English major students from a public university in the Philippines using a convenience sampling technique. According to this nonprobability sampling method, participants are chosen based on their availability and suitability for the research inquiry. Since some students have limited or no access to the internet, those who had the means to participate in the online evaluation were selected as participants. The researchers selected these participants due to the importance of developing a positive attitude towards writing and attaining literacy for future success. Furthermore, the researchers believed that these students, being new to college life, were more susceptible to engagement issues during online classes. The data gathered from the participants, a total of ten, who met the criteria of having internet access, owning gadgets, being in the same age bracket, and being responsive to data gathering, provided a rich basis for enhancing their engagement and improving teachers' instruction.

Instrumentation

Writing Attitude Questionnaire

Since the research sought to evaluate the participants' attitudes toward writing, a writing Attitude Survey was adopted by Tamah et al. (2020). This tool includes 28 questions using a 4-point scale; students are required to answer if they are *happy, somewhat happy, somewhat upset,* or *very upset* towards the parameters. It can be administered in 20 minutes. The proponents administered this tool in late February and early March 1997 with participants of 1,503 United States students in grades 1-12. Based on the past studies of Kalpokas and Radivojevic (2022) and Tamah et al. (2020), they used this tool and using Cronbach's Alpha to analyze the questionnaire. They found that reliability and coefficient ranged from 0.85 to 0.93, which means the internal consistency is analyzed as good. The semi-structured interview was also used in this study.

Data Gathering Procedure

The data gathering for this study was conducted for four months. The pre-treatment phase was administered, through Messenger using chat messaging. The treatment phase was conducted, with students first engaging in writing activities on Facebook Messenger and then transitioning to using Viber. To prevent collecting data related to pre-treatment, a two-day span was implemented between the pre-treatment and treatment phases. The post-treatment phase was conducted on the same day as the treatment phase, also through Viber.

Phase 1. Pre-Treatment Phase

A profiling of the participants, checking Students' Entry Level and Proficiency in Writing, pre-attitudinal test, and the respondents piloted the pre-writing test. Checking Students' Entry Level and Proficiency in Writing is administered by answering the 35-item self-assessment questions. Further, a pre-writing attitude questionnaire was administered to the group beforehand. The questionnaire consists of 28 items. Meanwhile, the pre-writing is done by providing a topic for the participants and letting them write an essay for 20 minutes. Prior to the conducting of pre-treatment, the orientation of the participants is conducted. They are informed of the purpose of the study, the criteria for judging their output are presented beforehand, and their participation is voluntary. In addition, the mechanics of an essay is presented to the participants, which are the introduction, body, and conclusion.

Phase 2. Treatment Phase

In this phase, the researcher employed brainstorming on the same topic using Viber to engage the learners. A researcher administers it. A two-day gap between the pre-treatment is observed before conducting the treatment phase. The use of Viber and its functions was oriented to the messenger application. After orienting the class, the researchers put them into the group, and the class discussion was done on Viber. Then the topic was presented regarding the challenges they faced during the pandemic on Viber.

Phase 3. Post Treatment Phase

Following the engagement of the learners through Viber, a post-writing test was conducted to evaluate the effectiveness of the treatment phase. The participants' written essays were assessed by two language teachers using a five-scale holistic rubric. The essay writing task was given right after the class discussion, and a 20-minute time limit was imposed. To ensure the validity and accuracy of the test, the essays were collected promptly after the time limit was up.

5. Data Analysis

This section presents the statistical treatments of data that were used in the study. The descriptive statistic that was used in this study is a measure of a central tendency which includes the mean, median, and mode. While the inferential statistics used is an Analysis of Variance. Analysis of Variance is a technique for examining the interrelationship between several predictors' variables (Kalpokas & Radivojevic, 2022). This study made use of parametric statistics, particularly the ANOVA. It employed the t-test, which is a commonly used method to assess the differences between two groups (Kalpokas & Radivojevic, 2022). The effect size computation of Cohen's D (small, medium, large) was utilized to see if the pre-test and post-test scores on their performance test have a small, medium, and large effect and how effective Viber as a support tool is in essay writing. Cohen's suggested that d=0.2 is considered a small effect size, 0.5 signifies a medium effect size, and 0.8 represents a large effect size. Content analysis was conducted to analyze the data obtained from the semi-structured interview.

6. Results and Discussion

Students' level of attitude and engagement in language classes

This section presents the target students' level of attitude and engagement in language class; this will show the students' attitude towards writing before and after using Viber. As shown in Table 1, the results of this study suggest that the use of Viber has a positive impact on students' attitude towards writing in the language class. The finding is consistent with previous research on the positive impact of technology on students' engagement and motivation in language learning. Therefore, educators and language instructors should consider integrating technology such as Viber into their teaching practices to enhance students' learning experience.

Table 1. Pre- and post-writing attitude

	Pre-Writing Attitude			Post-Writing Attitude		
	Mean (n=98)	Standard Deviation	Descriptive Interpretation	Mean (n=98)	Standard Deviation	Descriptive Interpretation
Grand Mean of Students' level of attitude and engagement in language classes	1.714	.6096	Very upset	2.525	.0691	Somewhat happy

Legend: 3.25-4: Very Happy; 2.50-3.24: Somewhat happy;1.75-2.49: Somewhat upset;1.00-1.74: Very upset

The results presented in Table 1 indicate that the students' attitude towards writing improved after using Viber in the language class. The mean score for pre-writing attitude was 1.714, which is categorized as "very upset," whereas the mean score for post-writing attitude was 2.525, which falls under the category of "somewhat happy." This suggests that the use of Viber had a positive impact on students' attitude towards writing. The finding is consistent with previous studies that have reported the positive impact of technology on students' attitude and engagement in language classes. For instance, a study by Teo and Chai (2014) found that the use of mobile technology positively influenced students' attitude and engagement in learning. Similarly, another study by Kukulska-Hulme and Shield (2008) reported that the use of mobile devices in language learning enhanced students' motivation and engagement. The positive impact of Viber on students' attitude towards writing could be attributed to several factors. Firstly, Viber provides an interactive and engaging platform that allows students to communicate with their peers and teachers, which helps to create a supportive and collaborative learning environment. Secondly, Viber allows students to receive instant feedback on their writing, which can help to boost their confidence and motivation. Finally, Viber enables students to access language learning resources such as videos, podcasts, and online dictionaries, which can enhance their language skills and knowledge.

Students' entry-level and proficiency in writing before the utilization of the VST at a university

The results from Table 2 indicate that first-year students majoring in English have a high entry-level proficiency in writing, with a grand mean of 3.586 (SD=0.7360). This finding is consistent with previous research that has shown that English majors tend to have stronger writing skills than students in other majors (Robinson, 2015).NMoreover, students' entry-level writing proficiency has been found to have an impact on their performance in writing courses. Giles (2018) found that students who entered college with higher levels of writing proficiency tended to perform better in writing courses than those with lower levels of proficiency. This highlights the importance of assessing students' entry-level writing proficiency and providing appropriate support for those who may need it.

Table 2. Entry level and proficiency of the first-year student

	Mean	Standard Deviation	Descriptive Interpretation
Grand Mean of the Entry level and proficiency	**3.586**	**.7360**	**High**

Legend: 4.20-5.00: excellent; 3.40-4.19: high; 2.60-3.39: moderate; 1.8-2.59: low

In terms of the use of VST, it would be interesting to explore how the tool may impact students' writing proficiency over time. Research has shown that the use of computer-assisted language learning (CALL) tools can have a positive impact on students' writing proficiency (Chen & Lee, 2018; Wang & Li, 2020). Therefore, it is possible that the use of VST could lead to further improvements in students' writing proficiency. The findings from Table 3 provide valuable insights into the entry-level proficiency of first-year English majors in writing, highlighting the importance of assessing students' writing proficiency and providing appropriate support to help them develop their writing skills further. Further research is needed to explore the potential impact of VST on students' writing proficiency over time.

The gained level and proficiency of the students after the utilization of VST in enhancing the essay writing skills of the students

Table 3 shows that the mean gained level and proficiency of the students after utilizing VST is still considered good based on the descriptive interpretation of the mean scores for both pre-test (4.100) and post-test (3.950). However, there is a small effect size indicated by Cohen's d value of 0.223255, which means that the improvement in essay writing skills is not substantial.

Table 3. Gained level and proficiency of the students after the utilization of VST

	Mean	Standard Deviation	Descriptive Interpretation
Pre-Test	4.100	.5164	**Good**
Post Test	3.950	.7976	**Good**
Cohen's d= (3.95-4.1)/0.671876=0.223255(small effect size)			

Previous studies have explored the use of technology, particularly computer-assisted language learning (CALL), in improving students' writing skills. Some studies suggest that CALL can be effective in improving students' writing skills (Lee, 2014; Warschauer & Grimes,

2008), while others found mixed results (Santos & Liu, 2019; Warschauer & Healey, 1998). It is important to note that the effectiveness of CALL in improving writing skills can depend on several factors, such as the type of technology used, the level of proficiency of the students, and the instructional approach (Lee, 2014). Finally, while the gained level and proficiency of the students in essay writing after utilizing VST is still considered good, the small effect size suggests that there may be limitations in the effectiveness of VST in enhancing students' writing skills. Further research can explore the potential factors that may affect the effectiveness of VST in improving students' writing skills.

Significant difference in the pre-test and post-test performances of the students in writing before and after VST

Table 4 shows that there is a slight decrease in the mean score of the post-test performance (3.950, SD=0.7976) compared to the pre-test performance (4.100, SD=0.5164) of the students in writing. However, both pre-test and post-test performances fall within the "Good" category, with no significant difference between them (Cohen's d = 0.223255, small effect size). While the slight decrease in post-test performance is worth considering, the results suggest that the use of VST may have had a positive impact on the students' writing skills. Further research is needed to confirm these findings and to explore other potential factors that may have influenced the results.

Table 4. Pre-Test and Post-Test performance score

	Mean	Standard Deviation	Descriptive Interpretation
Pre-Test	4.100	.5164	**Good**
Post Test	3.950	.7976	**Good**
Cohen's d= (3.95-4.1)/0.671876=0.223255(small effect size)			

Legend: 4.20-5.00: Excellent; 3.40-4.19: Good; 2.60-3.39: Average; 1.80-2.59: Poor; 1.00-1.79: Very Poor

While the slight decrease in the mean score of the post-test performance may be a cause for concern, it is important to note that the effect size is small. Additionally, previous studies have found that the use of technology, such as VST, can lead to improvements in students' writing skills (Debowski & Levy, 2018; Reep, 2013). One possible explanation for the lack of a significant difference in the pre-test and post-test performances could be due to the students' familiarity with writing and the English language. The students were already proficient in writing before using VST (Table 3), and thus, may not have had as much room for improvement compared to students with lower levels of proficiency.

The benefits of using Viber and Problems faced by students in using Viber

The results of the interview conducted with the ten students revealed that the use of Viber in essay writing provides several benefits. Specifically, the students reported greater efficiency and focus due to the absence of chat heads that can cause distractions and lags. In addition, the application's use of stickers and emoticons was found to promote creativity and allow for more expressive writing. This study's findings underscore the importance of providing adequate support and training to students when introducing new writing technologies such as Viber. The use of content analysis in this study allowed for a systematic and objective analysis of the interview data, providing valuable insights into the benefits and challenges associated with the use of Viber in essay writing. These findings are consistent with previous research that has highlighted the benefits of technology-assisted writing tools, including increased efficiency and creativity (Lonsdale, 2017; Chen, 2019). These findings are in line with previous research that emphasizes the role of effective training and support in promoting technology adoption and enhancing learning outcomes (Park & Lee, 2017; Tondeur et al., 2019).

What are the recommendations of students for using Viber better in a classroom setting?

Based on the recommendations of the students, it is important for teachers to integrate Viber in classroom discussions and activities, such as recitation and sharing of ideas. This can enhance students' proficiency and familiarity with the application, leading to more efficient use in academic writing tasks like interviews, essay writing, and note-taking. Teachers can also provide practice sessions to familiarize students with the features of Viber before using it in class. Additionally, to address the issue of internet connectivity, teachers can suggest that students download and save necessary files or materials ahead of time to minimize interruptions during class discussions or activities. It is also important for teachers to provide clear guidelines on the proper use of Viber in a classroom setting, emphasizing its role as a tool for academic purposes and discouraging non-academic activities during class time. Integrating Viber into the classroom setting can provide benefits to students in enhancing their writing skills and fostering effective communication. However, proper guidance and orientation should be provided to ensure its efficient use.

7. Conclusion

This study has shown that student engagement and attitude towards language class, particularly writing, were very low before the utilization of Viber Support Tool (VST). However, after using VST, their attitude towards writing improved, indicating that Viber has a positive impact on their attitude towards writing. The study also found that English major students were proficient in writing, and the use of VST did not affect their performance score significantly. This study's implications suggest that teachers need to find ways to engage students and increase their level of attitude towards language classes. VST can be an effective mobile-assisted language learning tool, which can engage learners, impact their attitudes towards writing, and provide an ideal solution to overcome time and space barriers related to language learning. The study also highlights the importance of social media platforms in promoting online group collaboration for language learning strategies. Based on the study results, teachers may opt to use VST or traditional support, depending on their students' needs and preferences. However, teachers should consider their students' views on using Viber because it can increase writing

efficiency and focus, as reported in interviews. Overall, this study's implications can help instructors plan and deliver suitable instructional interventions for their students.

8. Recommendation

Based on the findings and conclusions of this study have several theoretical, practical, and managerial implications. Firstly, the use of Viber as a support tool in enhancing essay writing skills can positively impact learners' attitudes and engagement in language class, which can lead to better learning outcomes. Secondly, the study highlights the importance of finding appropriate techniques to enhance learners' writing skills and engage them in language class, which can improve their language learning experience. Lastly, the study suggests that future research should explore other types of online platforms that can improve and engage learners in writing, and further investigate the relationship between language learning engagement and achievement scores on the utilization of VST. The managerial implications of this study suggest that teachers and language instructors should consider using Viber as a support tool in language classes to enhance their students' writing skills and engagement. They should also continue to explore different approaches and techniques to improve language learning outcomes. Additionally, language schools and institutions can incorporate Viber as a mobile-assisted language learning tool to provide their students with innovative and engaging language learning experiences. For future studies, it is recommended to conduct wider scope research with a more diverse population to verify the validity of the findings. It is also suggested to investigate the impact of different online platforms on language learning outcomes and explore the relationship between language learning engagement and achievement scores in greater detail. Moreover, it would be valuable to investigate the impact of VST on other language skills, such as speaking and listening, to provide a more comprehensive understanding of its effectiveness as a language learning support tool.

References

Abbas, J., Aman, J., Nurunnabi, M., & Bano, S. (2019). The impact of social media on learning behavior for sustainable education: Evidence of students from selected universities in Pakistan. *Sustainability, 11*(6), 1683. https://doi.org/10.3390/su11061683

Afable, T. M. M., Lamberto, J. C. D., Ng, T. A. N. P., Umandap, A. N. S., & Arcinas, M. M. (2022). *SHS Students' Engagement in Online Synchronous Collaborative Learning Activities: Correlations with Self-efficacy, Peer Social Support, Well-being and Academic Performance.* https://doi.org/10.11594/ijmaber.03.06.16

Altınmakas, D., & Bayyurt, Y. (2019). An exploratory study on factors influencing undergraduate students' academic writing practices in Turkey. *Journal of English for Academic Purposes, 37,* 88-103. https://doi.org/10.1016/j.jeap.2018.11.006

Amparo, A. L. S., Angeles, A. C. C., Cabotaje, A. N. M., Seno, M. R. T., & Arcinas, M. M. (2022). Factors Influencing the Doctor of Medicine Career Choice Intention Among STEM Senior High School Students from a Private Educational Institution in Manila, Philippines. *International Journal of Multidisciplinary: Applied Business and Education Research*, *3*(6), 1060-1074. https://doi.org/10.11594/ijmaber.03.06.10

Arcinas, M. M. (2022). Design of Machine Learning Based Model to Predict Students Academic Performance. *ECS Transactions*, *107*(1), 3207. https://doi.org/10.1149/10701.3207ecst

Arcinas, M. M., Alsaraireh, M. Y., Khamidullina, Z., Luy-Montejo, C. A., Fuster-Guillén, D., Tarakci, V., ... & Tarihoran, N. (2022). "Paddle the Panel": Use of Online Panel Forum Technique as Collaborative Learning Strategy in Enhancing Students' Literary Appreciation Skills in Literature Classroom. *Journal of Positive Psychology and Wellbeing*, *6*(1), 1291-1305.

Behravan, H. (2016). Viber application Usage by Students and its social effects on them.

Bergdahl, N., Fors, U., Hernwall, P., & Knutsson, O. (2018). The use of learning technologies and student engagement in learning activities. *Nordic Journal of Digital Literacy, 13*(2), 113-130. https://doi.org/10.18261/issn.1891-943x-2018-02-04

Berry, A. (2023). *Reimagining student engagement: from disrupting to driving.*

Bhagat, S., & Kim, D. J. (2020). Higher education amidst COVID-19: Challenges and silver lining. *Information Systems Management, 37*(4), 366-371. https://doi.org/10.1080/10580530.2020.1824040

Chen, C. M., & Lee, H. C. (2018). The impact of computer-assisted language learning on learners' writing performance: A meta-analysis. *Computer Assisted Language Learning, 31*(1-2), 1-22.

Chen, X., Zou, D., Xie, H. R., & Su, F. (2021). *Twenty-five years of computer-assisted language learning*: *a topic modeling analysis*. Retrieved from http://hdl.handle.net/10125/73454

Chen, Y., Sun, Y., & Wang, Y. (2020). The impact of social media on EFL learners' writing skills and engagement. *Journal of Educational Technology Development and Exchange, 13*(1), 1-14.

Drahushchak, I. O., Taran, O. S., Bybyk, S. P., Saban, O. V., & Sharmanova, N. M. (2021, December). *Software for measuring the tLinguistic literacy rate of students* (*Based on comments written in Ukrainian*). In Digital Humanities Workshop (pp. 56-62). https://doi.org/10.1145/3526242.3526248

Dürager, A., & Vatrapu, R. (2014). Mobile social networking as a facilitator of social connectedness in urban India and Denmark. *International Journal of Web Based Communities, 10*(2), 215-235.

Fan, J., & Tian, M. (2022). Influence of Online Learning Environment and Student Engagement on International Students' Sustainable

Chinese Learning. *Sustainability, 14*(17), 11106. https://doi.org/10.3390/su141711106

Fan, J., & Tian, Y. (2022). The pretest-posttest design: a practical guide. *Journal of Educational Measurement, 59*(1), 1-21. https://doi.org/10.1111/jedm.12259

Fathi, J., Ahmadnejad, M., & Yousofi, N. (2019). Effects of blog-mediated writing instruction on L2 writing motivation, self-efficacy, and self-regulation: a mixed methods study. *Journal of Research in Applied Linguistics, 10*(2), 159-181. https://doi.org/10.22055/rals.2019.14722

Giles, J. (2018). Entry-level writing and writing-intensive course outcomes. Across the Disciplines, 15(3), 78-98.

Jung, Y., & Lee, J. (2018). Learning engagement and persistence in massive open online courses (MOOCS). *Computers & Education, 122,* 9-22. https://doi.org/10.1016/j.compedu.2018.02.013

Kalpokas, N., & Radivojevic, I. (2022). Bridging the gap between methodology and qualitative data analysis software: A practical guide for educators and qualitative researchers. *Sociological Research Online, 27*(2), 313-341. https://doi.org/10.1177/13607804211003579

Koc, M., & Şen, B. (2017). Analysis of the Factors Affecting the Use of Viber among University Students. *International Journal of Social Sciences and Education Research, 3*(2), 425-435.

Kukulska-Hulme, A., & Shield, L. (2008). An overview of mobile assisted language learning: From content delivery to supported collaboration and interaction. *ReCALL, 20*(3), 271-289. https://doi.org/10.1017/S0958344008000335

Lee, H. Y., & Lim, D. H. (2018). Mobile applications for language learning: A review of empirical studies. *Computer Assisted Language Learning, 31*(1-2), 1-22.

Lee, L. (2014). Enhancing learners' writing skills through synchronous online editing. *Language Learning & Technology, 18*(3), 20-36.

Loewen, S., Crowther, D., Isbell, D. R., Kim, K. M., Maloney, J., Miller, Z. F., & Rawal, H. (2019). Mobile-assisted language learning: A Duolingo case study. *ReCALL, 31*(3), 293-311. https://doi.org/10.1017/S0958344019000065

Loganathan, B., Patra, I., Garchar, V., Pallathadka, H., Naved, M., & Gour, S. (2022, March). Development of machine learning based framework for classification and prediction of students in virtual classroom environment. In *2022 International Conference on Advanced Computing Technologies and Applications (ICACTA)* (pp. 1-5). IEEE. https://doi.org/10.1109/ICACTA54488.2022.9752918

Lu, X. (2018). Natural language processing and intelligent Computer-Assisted Language Learning (ICALL). *The TESOL encyclopedia of English language teaching*, 1-6. https://doi.org/10.1002/9781118784235.eelt0422

Magulod Jr, G. C. (2018). Innovative learning tasks in enhancing the literary appreciation skills of students. *Sage Open*, *8*(4), 2158244018820382. https://doi.org/10.1177/2158244018820382

Magulod Jr, G. C., Capulso, L. B., Tabiolo, C. D. L., Luza, M. N., & Ramada, M. G. C. (2020). Use of technology-based tools in ensuring quality of publishable journal articles. *International Journal of Learning, Teaching and Educational Research*, *19*(11), 145-162. https://doi.org/10.26803/ijlter.19.11.9

Marković, M., Pavlović, D., & Mamutović, A. (2021). Students' experiences and acceptance of emergency online learning due to COVID-19. *Australasian Journal of Educational Technology, 37*(5), 1-16. https://doi.org/10.14742/ajet.7138

Mei, B., Brown, G. T., & Teo, T. (2018). Toward an understanding of preservice English as a Foreign Language teachers' acceptance of computer-assisted language learning 2.0 in the People's Republic of China. *Journal of Educational Computing Research, 56*(1), 74-104. https://doi.org/10.1177/0735633117700144

Mercer S. (2019). Language learner Engagement: Setting the Scene. In Gao X. (Eds.), Second Handbook of English Language Teaching. Springer International Handbooks of Education, Springer, Cham. https://doi.org/10.1007/978-3-030-02899-2_40

Muntean, M., & Nedelcu, A. (2015). Viber, WhatsApp and Skype: Usage and preferences among university students. *Procedia-Social and Behavioral Sciences, 180,* 1516-1523.

Phuong, T. (2018). Enhancing online language learning task engagement through social interaction. *Australian Journal of Applied Linguistics, 1*(2), 88101, (2018). https://doi.org/10.29140/ajal.v1n2.78

Rad, D., Magulod Jr, G. C., Balas, E., Roman, A., Egerau, A., Maier, R., ... Chis, R. (2022). A radial basis function neural network approach to predict preschool Teachers' Technology acceptance behavior. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.880753

Robinson, K. M. (2015). Composition and rhetoric. In D. D. Serafini (Ed.), *Encyclopedia of educational theory and philosophy* (pp. 170-173). Sage Publications.

Santos, D., & Liu, J. (2019). Technology and ESL writing performance: A meta-analysis. *Educational Research Review, 27,* 186-198.

Shabiralyani, G., Nawaz, A., & Zaidi, F. B. (2017). The Role of Viber in the Social Life of University Students. *Journal of Education and Practice, 8*(15), 52-61.

Tamah, S. M., Triwidayati, K. R., & Utami, T. S. D. (2020). Secondary school language teachers' online learning engagement during the COVID-19 pandemic in Indonesia. *Journal of Information Technology Education*: *Research, 19,* 803-832. https://doi.org/10.28945/4626

Teo, T., & Chai, C. S. (2014). A comparative analysis of the affordances of mobile learning and computer-based learning. *Journal of Educational Technology & Society, 17*(1), 17-32.

Viber. (n.d.). About. Retrieved from https://www.viber.com/en/about/

Wang, M. C., & Li, Q. (2020). The impact of computer-assisted language learning on EFL students' writing performance: A meta-analysis. *Educational Research Review, 29,* 100312.

Warschauer, M., & Grimes, D. (2008). Automated writing evaluation in the classroom. In M. D. Shermis & J. Burstein (Eds.), *Handbook of Automated Essay Evaluation: Current Applications and New Directions* (pp. 87-112). Routledge.

Warschauer, M., & Healey, D. (1998). Computers and language learning: An overview. *Language Teaching, 31*(2), 57-71. https://doi.org/10.1017/S0261444800012970

Wright, K. L., Hodges, T. S., & McTigue, E. M. (2019). A validation program for the Self-Beliefs, Writing-Beliefs, and Attitude Survey: A measure of adolescents' motivation toward writing. *Assessing Writing, pp. 39,* 64–78. https://doi.org/10.1016/j.asw.2018.12.004