

## THE EFFECTIVENESS OF MOBILE-ASSISTED LANGUAGE LEARNING TO TEACH WRITING

**Benny Krisbiantoro<sup>1\*</sup>, Tri Pujiani<sup>2</sup>**

<sup>1\*</sup>Harapan Bangsa University, Purwokerto, Indonesia

<sup>2</sup>Harapan Bangsa University, Purwokerto, Indonesia

*\*Corresponding author. Raden Patah Street No. 100 Ledug, Kembaran, 53182, Purwokerto, Indonesia*

E-mail: [bennykrisbiantoro@uhb.ac.id](mailto:bennykrisbiantoro@uhb.ac.id) <sup>1\*</sup>

### Abstract

The ability to write English texts for senior high school students in Banyumas Regency is still low. The lack of mastery of vocabulary, grammar, and sentence structure makes it challenging for students to write English texts well. ICT allows students to write English text quickly. Mobile-Assisted Language Learning (MALL) and Flipped Classroom are believed to improve students' ability to write English texts. The purpose of this study was to investigate whether Mobile-Assisted Language Learning (MALL) was more effective than Flipped Classroom for teaching English text writing for senior high school students in Banyumas Regency. The method employed in this research was a quasi-experimental method with a post-test-only non-equivalent control group design. In this study, the researcher utilized purposive sampling to determine the samples. The samples of this study were 36 students of XI IPS 2 of SMAN 1 Baturraden, and 36 students of XI IPA 4 of SMAN 1 Banyumas as the experimental class taught using MALL, while the control class which was conducted using Flipped classroom comprised 36 students of XI IPS 3 of SMAN 3 Purwokerto and 36 students of XI IPA 4 of SMAN 1 Sokaraja. It was proven that the mean score of the students' Writing in the experimental class was 75.67 while the mean score of the students' Writing in the control class was 58.52. The t-test result in the research was 14.86 and the t-table is 1.65. It meant that the t-test score was higher than the t-table. Based on the research findings, it could be concluded that the use of MALL was more effective than Flipped Classroom to teach writing to the eleventh graders of senior high schools in Banyumas.

**Keywords:** *experimental research, flipped classroom, ICT, mall, writing*

### INTRODUCTION

Writing in English is very important in the classroom and for use in meetings in real-life situations. In Writing, students experience many problems such as lack of mastery of vocabulary, grammar, and sentence grammar. They still have difficulty even writing text in Indonesian, let alone writing English text. To solve writing problems, students need something that can stimulate them to be able and courageous to express their ideas and then write them down. The use of technology is expected to provide solutions to all problems in Writing, especially in the industrial era 4.0 like today.

Mobile-Assisted Language Learning (MALL) and Flipped Classroom are English learning media technologies that are still relatively new. Not many schools have implemented two instructional technology media. MALL is a teaching approach that uses technological tools in the form of smartphones that bring together mobile devices' functionality, learning management systems, and the need for connections between teachers and students. The advantages of MALL are mobility, flexibility, wireless networking, interaction, accessibility, and privacy. Social media users such as Line, Instagram, and Facebook can be integrated with the MALL media itself.

On the other hand, the Flipped Classroom is a teaching method that transfers direct instruction that is usually carried out in the classroom to outside the school; in this case, students are given exposure to new material outside the classroom through reading or watching videos of material

presentation or demonstrations which later in the classroom students will be given activities such as quizzes, problem-solving, and other active learning activities. The advantage of a Flipped Classroom is that it implements reverse learning by using various methods to prepare online content. When students do independent work at home, they can communicate with each other using the Google Classroom and or WhatsApp Group application so that teachers and students can interact freely. During the in-class activity, they apply what they have seen at home and then begin to write down their ideas in the form of written English text.

Mobile-Assisted Language Learning (MALL) is a language learning and teaching approach that is assisted or enhanced through the use of tools in the form of smartphones/cell phones held by our hands. MALL is part of mobile learning (m-learning) and computer-assisted language learning (CALL). MALL is a learning medium with promising prospects in supporting a mixed-based foreign language curriculum (blended learning). Smartphone technology helps students learn foreign languages through applications and activity designs that suit students' needs and preferences. MALL means learning with handheld technology such as cell phones, PDAs, iPods, iPads, and other similar devices that can affect language learning (Valarmathi, 2011; Ali, 2014 in Zaki & Yunus, 2015). MALL is defined as a teaching method that uses a smartphone/cell phone or other handheld device with some form of wireless connection such as cell phones, PDAs and tablets, etc. (Khubyari & Narafshan, 2016).

MALL is an educational technology for mobile learning. Students can have learning resources and learning activities on their smartphones as if they are connected to the network via a computer with wired or wireless broadband links, in addition to smartphone functionality. Mobile learning technology is the technology that helps users to gain access to educational resources using mobile devices such as smartphones, notebooks, tablets, and so on anytime and anywhere. Costa & Han in 2017 showed that students have a very positive view of the use of mobile devices and their applications in the classroom, even changing their perspectives on language learning. At first, they thought learning the language was very difficult, and eventually, they became interested in language learning. Robles in 2016 revealed that genre-based methods could be applied via mobile technology to improve students' writing skills.

Another study that also uses mobile learning is research by Zaki & Yunus in 2015, which shows that mobile learning can be integrated into academic Writing by using it into several writing approaches that complement mobile devices' pedagogical advantages. In line with the research previously mentioned, Azar & Nasiri in 2014 showed that the experimental group who received instruction through cell-phone-based audiobooks had better listening skills than the control group. Karim et al., in 2018, revealed that the practice of mobile technology (mobile technology) has good prospects in the learning and teaching process in higher education 4.0.

Al-Shehab in 2020 showed that smartphones were indeed a useful teaching tool, with multiple positive effects on student agency. The results of her study suggested that learner autonomy improved by engaging in the writing process both inside and outside of the classroom and increasing motivation and peer collaboration via the use of mobile technology. Another research conducted by Yedla & Nagarjuna in 2013 yielded that MALL was very much easier and faster to learn English. It is also in line with a study carried out by Gonulal in 2019, which revealed that Instagram as one type of MALL application could help ELLs improve overall language skills in general and vocabulary and communication skills in particular.

Several studies related to the use of mobile learning mentioned above have limitations. The first research cited in the study of Costa & Han in 2017. Their research only focuses on student opinion and does not cover a broader domain. The second research is research conducted by

Robles in 2016, which concentrates exclusively on narrative text material, and the research subjects are students. The subsequent analysis is a research carried out by Zaki & Yunus in 2015, which only focuses on integrating mobile learning into academic Writing. The fourth research is research held by Azar & Nasiri in 2014, which focuses on mobile learning in listening learning. The fifth research is research conducted by Karim et al. in 2018, which only raises the theme of the perspective and practice of mobile learning in higher education 4.0. The sixth research by Al-Shehab in 2020 solely focuses on forty female intermediate-level Intensive English Program (IEP) students at an intermediate level at Kuwait University. The seventh research carried out by Yedla & Nagarjuna in 2013 was mainly concerned with how to deal with a practical, appropriate, and interactive use of mobile-related technologies in University level and Professional College-level teaching system. The eight studies by Gonulal in 2019 mainly focus on using Instagram to teach English and how the English learners' attitudes towards and experiences in using it as a MALL tool.

The researcher also presented several studies that are relevant to the issue of using the Flipped Classroom. Shimamoto in 2012 showed that flipped classrooms have the opportunity to trigger a significant shift in the teaching methods used. Using technology, currently, a teacher can provide an alternative to traditional-based learning models by applying mixed learning methods, which combine the advantages of direct teaching and active learning to involve students in the learning process. Roehl et al. in 2013 said that to introduce several new strategies that are transferred from the thinking of teachers and students, teachers must research with alternative approaches in the classroom.

Tirtasanjaya et al. (2012) in Krisbiantoro & Pujiani (2019) revealed that the flipped classroom model's implementation is very valuable in the future. One possible improvement is to include various guided questions used in the lowest level of Bloom's taxonomy for independent work and the highest level of Bloom's taxonomy for in-class activities. Marlowe (2012) in Krisbiantoro & Pujiani (2019) showed that flipped classrooms could affect student achievement and stress levels. Students in the second year watch video lectures outside of class and work on class assignments. Students reported that their stress level was reduced in that lecture compared to that of another course.

Abdelrahman et al. in 2017, conducted research and proved that there was an improvement in the students' writing proficiency and satisfaction based on their engagement and interaction with the developed module of paragraph writing. Another research by Mok in 2014 yielded that having been implemented flipped classroom, the students were more engaged and empowered to take on more ownership for their learning. Smith in 2015 carried out a study on the efficacy of a flipped learning classroom and showed that students' achievement did not improve with a flipped learning model, while students, parents, and teachers teacher-reported the flipped classrooms actively engaged students in the learning. Egbert et al. in 2015 showed that flipped instruction in English language teacher education did not fit the students or context of the ELL teacher education course very well. However, the flip's success may also depend on where students are in their program, their previous experiences, and how flipped instruction is described and supported.

In the research on using the Flipped Classroom mentioned above, there are still shortcomings or limitations. The first research is research conducted by Shimamoto in 2012, which only focuses on using the Flipped Classroom as an alternative to traditional-based learning models. Next is study by Roehl et al., in 2013, which exclusively focuses on developing students' creative thinking. Tirtasanjaya et al. (2012) in Krisbiantoro & Pujiani (2019) conducted a study that only concentrates on variations in the guiding question on FC at the lowest and highest

levels of Bloom's taxonomy. The fourth one is research by Marlowe (2012) in Krisbiantoro & Pujiani (2019), which only focuses on Flipped Classroom's use on student achievement and stress. The fifth is by Abdelrahman et al., in 2017, which concentrates exclusively on flipped learning for ESL writing in a Sudanese school and the utilization of the module of paragraph writing and how the students' writing proficiency and satisfaction on the module. The sixth is by Mok in 2014, which was mainly concerned with a trial of the flipped classroom model for a programming course with pair programming in-class active learning activity. The seventh is by Smith in 2015, which employed a mixed-method research design to investigate student achievement and homework completion rates between the students in the flipped classrooms and those students in the traditional classrooms. The last research is by Egbert et al., in 2015, which merely focuses on the use of a design-based research approach to explore the flip of an ESL teacher education course for mainstream teachers.

This study focuses on the use of digital technology-based media and online learning. This research is fundamental to be carried out considering the students' writing ability is still very low even though Writing is the main asset for them to get jobs in their future. This research is very relevant to the times, especially in the era of digitalization and industry 4.0. This research includes innovative and cutting-edge research because not many schools and universities have implemented these two technology-based learning media. This research is very urgent to carry out, especially in terms of improving English learning. This study's results allow the two learning media to be applied to enhance students' abilities in all subject matters. Therefore, this study is aimed to investigate the effectiveness of MALL to teach writing analytical exposition text in senior high schools in Banyumas Regency.

This study formulates the following hypothesis: MALL (Mobile Assisted Language Learning) is more effective than Flipped Classroom for teaching writing analytical exposition text to class XI students at SMAN in Banyumas for the 2020/2021 academic year.

#### *Mobile-Assisted Language Learning*

Mobile-Assisted Language Learning (MALL) is defined as the way people use mobile devices to learn languages through wireless technology and wireless communication because through this method, users can get content or information from all over the world, which is very useful for enhancing abilities (Vemula, 2018). According to Baleghizadeh & Oladrostam (2010), MALL is a branch of technology-enhanced learning that might be enforced in varied forms and face-to-face, distant or online modes. Burston (2014) defined MALL as a method that promotes the use of any flexible and accessible language learning tools. Kukulska-Hulme (2009) stated that MALL is a pedagogical method that utilizes technological tools to mediate the interactions among the students. MALL refers to teaching and learning, which can be done anytime and anywhere with the help of handheld mobile technologies (Duman et al., 2014; Khubyari & Narafshan, 2016; Zaki & Yunus, 2015). Based on the definitions above, it can be concluded that MALL is technology-enhanced learning which enables the students to utilize the use of mobile devices anytime and anywhere to enhance their ability in language learning.

#### *Flipped Classroom*

Flipped classroom or flipped learning is initially introduced by Bergmann & Sams in 2008 by which they prerecorded all of their lectures in advance, and then they allowed their students to watch the videos at home and eventually, in the following day, they assisted the students in the classroom is having a further discussion, real practices and exercises of what they have watched and learned before. Bergmann & Sam (2012) stated that the students could watch, listen to, interact with video lessons outside the classroom in their own time, and then use class time for engaging activities facilitated by the instructors. They also highlighted flipped learning to

provide the opportunity for active learning carried out in and out of the classroom. Flipped learning enables students to remember the materials independently. Should they require the teacher's explanation, they can ask the school the day after. Hamdan et al. (2013) clearly stated that a flipped classroom is a learning model that can allow the teacher to facilitate the video lessons to the students beforehand and use the class time to check each student's understanding to figure out the material. Besides, it creates a shift from teacher-driven instruction to student-centered learning. It is because the students are encouraged to learn independently and interactively and to be the agents of their learning. Flipped learning is defined as pedagogical activities that transform the lecturing in the class into performing a variety of activities that involve the teacher and the students to have more interaction and engagement (Ahmed, 2016). The interaction and engagement can be carried out both during the students' independent learning and in-class activities.

Based on the explanations above, it can be inferred that flipped learning or flipped classroom is a teaching and learning method that enables the teacher and students to have more lively and vivid interaction with the use of prerecorded video lessons and in-class activities.

#### *Advantages and Disadvantages of MALL*

Like other teaching methods, MALL also possesses some advantages and disadvantages. The advantages of using MALL in the language learning are in the matter of its accessibility (Honar zad, 2019); Ishaq, et al., 2020), immediacy (Chartrand, 2016), ubiquity (Cheng, et al., 2010), interactivity (Lindaman & Nolan, 2017) and autonomy (Lai & Zheng, 2018). On the other hand, MALL has some drawbacks such as distractions (Chartrand, 2016; Al-Okaily, 2013); Honar zad, 2019; and Lai & Zheng, 2018), technical problems (Chartrand, 2016), lack of face-to-face communication (Kacetyl & Klímová, 2019; Honar zad, 2019), AND internet access and connection (Lindaman & Nolan, 2017; Kacetyl & Klímová, 2019).

#### *Merits and Demerits of Flipped Classroom*

Flipped classroom has several merits and demerits in the learning of language carried out by both the teacher and the students. The benefits of utilizing the flipped learning are such as independent learning, productivity, cooperation and interaction (Roehling, et al., 2017; Betül & Demirer, 2016). Meanwhile, flipped learning also has some pitfalls such as students' resistance, teachers' burden, teachers' suspiciousness, students' speed rate, less engagement, distraction (Betül & Demirer, 2016; Roehling et al., 2017).

#### *Nearpod*

One of the handheld device-assisted tools occupied in this study is nearpod. Mckay & Ravenna (2016) stated that nearpod is

a free app that enables teachers to use their tablet to manage content on their students' mobile devices ... teachers can download presentations; assess students individually or as a whole group, utilize additional interactive features from the internet, and create their own presentation. What is more, teachers may assess students' comprehension immediately ... and vary instruction accordingly.

In addition to being a fruitful application, nearpod also has several useful features, including a drawing feature and a highly advanced data analysis report that can be downloaded after a lesson (Halloran, 2018).

#### *Line*

Line is one of the social media applications that is mostly used by people (Ratnaningsih, 2018; Febriyanti, 2020). By utilizing line, people can be able to send messages, make a call, share images, and write notes as well as for personal use. Moreover, line allows the teachers and the

students to write any kinds of texts since it has a sophisticated feature to write together that is called line group notes.

### *Teaching Writing Analytical Exposition Text Using MALL*

In mobile-assisted language learning (MALL), the teacher utilizes mobile applications as the tool for carrying out the teaching and learning process. In this study, the researchers employed Nearpod and Line application to teach writing an analytical exposition text to the eleventh graders of XI IPS 2 (Social Science Class) of SMAN 01 Baturraden and XI IPA 4 (Natural Science Class) of SMAN 01 Banyumas. There were seventh meetings to implement MALL in these classes. The meeting sequence of teaching writing an analytical exposition text using MALL can be seen in table 1.

Table 1. Meeting Sequence of MALL Class

NO	MEETING	MATERIALS	ACTIVITIES
1	1st	Understanding Analytical Exposition Text	<ul style="list-style-type: none"> <li>✓ Accessing Nearpod to get explanation from the teacher about the social function, generic structure and language features of an analytical exposition text</li> <li>✓ Having a discussion, quiz, open-ended questions and summary of the materials.</li> </ul>
2	2 <sup>nd</sup>	Writing An Opening Paragraph	<ul style="list-style-type: none"> <li>✓ Accessing Nearpod to get explanation from the teacher about how to write an opening paragraph of an analytical exposition text</li> <li>✓ Having a discussion, quiz, open-ended questions and summary of the materials</li> </ul>
3	3 <sup>rd</sup>	Writing A Thesis Statement	<ul style="list-style-type: none"> <li>✓ Using Line Application to get an explanation about how to write a thesis statement.</li> <li>✓ Eliciting students' prior knowledge using some pictures that are relevant to the topics.</li> <li>✓ Asking the students to work in groups and find information related to the topics and share it with their group members.</li> <li>✓ Asking them to write the outline of an analytical exposition text and the appropriate thesis statements of the topics given.</li> <li>✓ Giving feedback and suggestion to the students' outline writing and thesis statement writing.</li> <li>✓ Rewriting the outline and the thesis statements of the topic.</li> </ul>
4	4 <sup>th</sup>	Writing Body Paragraphs	<ul style="list-style-type: none"> <li>✓ Using Line Application to get an explanation about how to write body paragraphs.</li> <li>✓ Asking the students to choose one of the topics given in the previous meeting, then ask them to find information and share it with their group members.</li> <li>✓ After picking up one topic, they can start writing the body paragraphs of an analytical exposition text in groups.</li> <li>✓ Asking the other students/groups to give comments and suggestions on one or two students' body paragraphs writing.</li> <li>✓ Giving feedback and suggestion to the students' body paragraph writing.</li> <li>✓ Rewriting the body paragraphs.</li> </ul>
5	5 <sup>th</sup>	Writing A Concluding Paragraph	<ul style="list-style-type: none"> <li>✓ Using Line Application to get an explanation about how to write a thesis statement.</li> <li>✓ Still using the previous topics to continue writing a concluding paragraph.</li> <li>✓ Asking the other students/groups to give comments and suggestions on one or two students' concluding paragraph writing.</li> </ul>

					<ul style="list-style-type: none"> <li>✓ Giving feedback and suggestion to the students' concluding paragraph writing.</li> <li>✓ Rewriting the concluding paragraph.</li> <li>✓ Assigning a new topic to the students to work in pairs and write a draft of an analytical exposition text to be discussed and checked in the following meeting.</li> </ul>
6	6 <sup>th</sup>	Writing Analytical Text 1	A	Complete Exposition	<ul style="list-style-type: none"> <li>✓ Reviewing the previous materials</li> <li>✓ Checking the students' draft of analytical exposition text writing.</li> <li>✓ Asking the other students/pairs to give comment, suggestion, and feedback on their friends' Writing.</li> <li>✓ Collecting the final draft of their text 1.</li> <li>✓ Checking and giving feedback to their text 1 writing.</li> <li>✓ Rewriting the text 1.</li> <li>✓ Assigning another new topic to the students to work individually and write an analytical exposition text for the next meeting.</li> </ul>
7	7 <sup>th</sup>	Writing Analytical Text 2	A	Complete Exposition	<ul style="list-style-type: none"> <li>✓ Checking the students' draft of analytical exposition text writing.</li> <li>✓ Asking the other students to give comment, suggestion, and feedback on their friends' Writing.</li> <li>✓ Collecting the final draft of their text 2.</li> <li>✓ Checking and giving feedback to the Writing of their text 2.</li> <li>✓ Rewriting the text 2.</li> <li>✓ Having a learning summary and reflection.</li> </ul>
8	8 <sup>th</sup>	Post-Test			

### *Teaching Writing Analytical Exposition Text Using Flipped Classroom*

In flipped learning, the teacher/educator assigns the class lecture or instructional content as homework. In preparation for class, students are required to view the lecture. Besides, students utilize the time in class to work through problems, advance concepts, and engage in collaborative learning.

In this research, the researchers applied flipped learning to teach writing to the eleventh graders of XI IPS 3 (Social Science Class) of SMAN 03 Purwokerto and XI IPA 4 (Natural Science Class) of SMAN 01 Sokaraja (Senior High Schools) for seven meetings. The meeting sequence of teaching writing an analytical exposition text using Flipped Classroom can be seen in table 2.

Table 2. Meeting Sequence of the Flipped Classroom

N	ME	MATERIAL	INDEPENDENT WORK (AT HOME)	IN-CLASS ACTIVITIES
O	ETI	S		
	NG			
1	1st	Understanding Analytical Exposition Text	<ul style="list-style-type: none"> <li>✓ Watching lecture video about understanding analytical exposition text (social function, language features, generic and schematic structures).</li> <li>✓ Online discussion using Google Meet and WhatsApp group.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Peer review</li> <li>✓ Exercises</li> </ul>
2	2 <sup>rd</sup>	Writing Opening Paragraph	<ul style="list-style-type: none"> <li>✓ Watching lecture video about writing an opening paragraph.</li> <li>✓ Online discussion using Google Meet and WhatsApp group.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Peer review</li> <li>✓ Exercises</li> <li>✓ Problem-solving activities</li> <li>✓ Discussing and Collaborating</li> <li>✓ Creating</li> </ul>

3	3 <sup>rd</sup>	Writing Thesis Statement	A	<ul style="list-style-type: none"> <li>✓ Watching lecture video about writing a thesis statement.</li> <li>✓ Online discussion using Google Meet and WhatsApp group.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Peer review</li> <li>✓ Exercises</li> <li>✓ Problem-solving activities</li> <li>✓ Discussing and Collaborating</li> <li>✓ Creating</li> </ul>
4	4 <sup>th</sup>	Writing Body Paragraphs		<ul style="list-style-type: none"> <li>✓ Watching lecture video about writing body paragraphs.</li> <li>✓ Online discussion using Google Meet and WhatsApp group.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Peer review</li> <li>✓ Exercises</li> <li>✓ Problem-solving activities</li> <li>✓ Discussing and Collaborating</li> <li>✓ Creating</li> </ul>
5	5 <sup>th</sup>	Writing Concluding Paragraph	A	<ul style="list-style-type: none"> <li>✓ Watching lecture video about writing a concluding paragraph. statement.</li> <li>✓ Online discussion using Google Meet and WhatsApp group.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Peer review</li> <li>✓ Exercises</li> <li>✓ Problem-solving activities</li> <li>✓ Discussing and Collaborating</li> <li>✓ Creating</li> </ul>
6	6 <sup>th</sup>	Writing Complete Analytical Exposition Text 1	A	<ul style="list-style-type: none"> <li>✓ Watching lecture video about writing a complete analytical exposition text.</li> <li>✓ Online discussion using Google Meet and WhatsApp group.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Peer review</li> <li>✓ Exercises</li> <li>✓ Problem-solving activities</li> <li>✓ Discussing and Collaborating</li> <li>✓ Creating a complete analytical exposition text in pairs.</li> </ul>
7	7 <sup>th</sup>	Writing Complete Analytical Exposition Text 2	A	<ul style="list-style-type: none"> <li>✓ Watching lecture video about writing a writing a complete analytical exposition text.</li> <li>✓ Online discussion using Google Meet and WhatsApp group.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Peer review</li> <li>✓ Exercises</li> <li>✓ Problem-solving activities</li> <li>✓ Discussing and Collaborating</li> <li>✓ Creating a complete analytical exposition text individually</li> </ul>
8	8 <sup>th</sup>	Post-Test			

## METHODS

This study employed a quasi-experimental method with a post-test-only non-equivalent control group design. This research was carried out in four senior high school; SMAN 1 Baturraden, SMAN 1 Banyumas, SMAN 3 Purwokerto and SMAN 1 Sokaraja. The subjects in this study were the eleventh graders of XI IPS 2 of SMAN 1 Baturraden, XI IPA 4 of SMAN 1 Banyumas, XI IPS 3 of SMAN 3 Purwokerto and XI IPA 4 of SMAN 1 Sokaraja. The objects of this research were the use of MALL and Flipped classroom to teach writing analytical exposition text. The population in this study was the eleventh graders of those four senior high schools in Banyumas regency in the academic year of 2020/2021. The total population in this study was 144 students divided into four different classes from the four senior high schools. The samples of this study were the students of XI IPS 2 of SMAN 1 Baturraden, XI IPA 4 of SMAN 1 Banyumas, XI IPS 3 of SMAN 3 Purwokerto and XI IPA 4 of SMAN 1 Sokaraja. Each class consisted of 36 students. XI IPS 2 of SMAN 1 Baturraden and XI IPA 4 of SMAN 1 Banyumas were experimental classes. In these classes, the researchers taught Writing using MALL. The control groups in this research were XI IPS 3 of SMAN 3 Purwokerto and XI IPA 4 of SMAN 1 Sokaraja. In this class, the researchers taught Writing using Flipped Classroom. In this study, the researchers used purposive sampling to determine the samples. There was one dependent variable and one independent variable. The dependent variable was writing competence, and the independent variable was the approach and method to teaching.

## RESULTS AND DISCUSSION

This study used data obtained from the score of students' Writing in the experimental class who was treated using MALL and in the control class with flipped classroom. The description of the data in this study was divided into the two sections described below:

### *Description of The Students' Writing Score Taught Using MALL*

The students' writing scores which are taught using MALL, are presented in table 3.

Table 3. The Students' Writing Scores Which Are Taught Using MALL

N	Mean	Mode	Median	Standard Deviation	Highest	Lowest
72	75.6736111	74.5	75	2.2	82	72

From table 3, the students' Writing mean score was 75.67, median 75, mode 74.5 and standard deviation 2.2. Then, the frequency distribution, polygons, and histograms of the writing scores of students taught using the MALL approach are depicted in table 4 and figure 1.

Table 4. Frequency Distribution of Students' Writing Scores Taught Using MALL

Group	Group Limit	Median ( $X_i$ )	$f_i$	$wf_i$	$X_i^2$	$f_i X_i^2$
72-73	71.5-73.5	72.5	11	797.5	5256.25	57818.75
74-75	73.5-75.5	74.5	33	2458.5	5550.25	183158.25
76-77	75.5-77.5	76.5	16	1224	5852.25	93636
78-79	77.5-79.5	78.5	4	314	6162.25	24649
80-81	79.5-81.5	80.5	6	483	6480.25	38881.5
82-83	81.5-83.5	82.5	2	165	6806.25	13612.5
84-85	83.5-85.5	84.5	0	0	7140.25	0
<b>Total</b>			72	1158	30520	92700

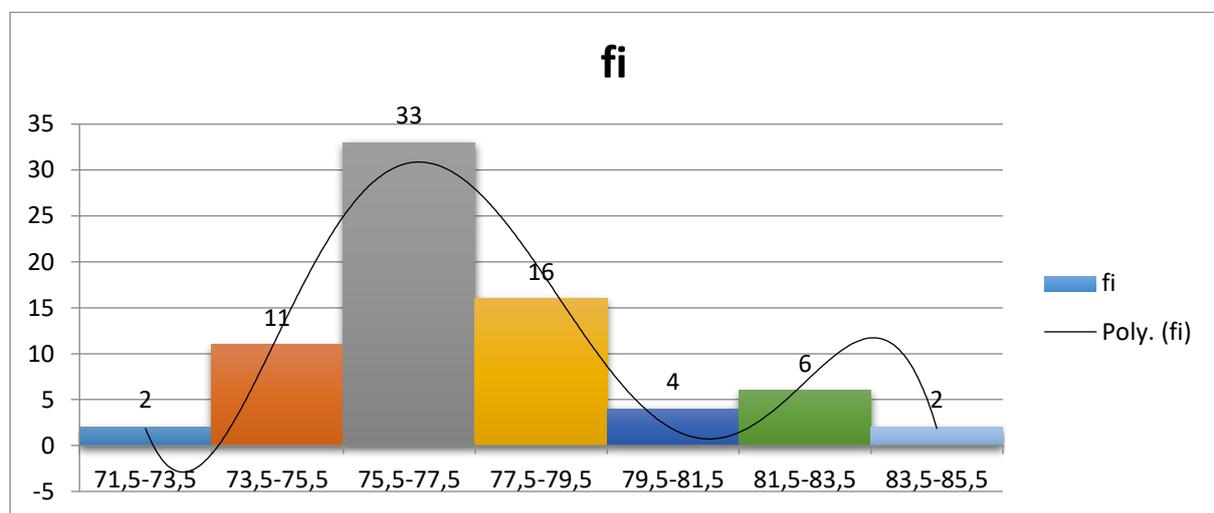


Figure 1. Histogram and Polygon of the Students' Writing Scores Taught Using MALL

### *Description of The Students' Writing Score Taught Using Flipped Classroom*

The students' writing scores, which are taught using Flipped Classroom, are presented in table 5.

Table 5. The Students' Writing Scores Which Are Taught Using Flipped Classroom

N	Mean	Mode	Median	Standard Deviation	Highest	Lowest
---	------	------	--------	--------------------	---------	--------

72	58.5277778	62.5	60.75	9.5	78	34.5
----	------------	------	-------	-----	----	------

From table 5, the students' Writing mean score was 58.52, median 60.75, mode 62.5 and standard deviation 9.5. Then, the frequency distribution, polygons, and histograms of the writing scores of students taught using Flipped Classroom are depicted in table 6 and figure 2.

Table 6. Frequency Distribution of Students' Writing Scores  
Taught Using Flipped Classroom

Group	Group Limit	Median (X <sub>i</sub> )	f <sub>i</sub>	w <sub>i</sub> f <sub>i</sub>	X <sub>i</sub> <sup>2</sup>	f <sub>i</sub> X <sub>i</sub> <sup>2</sup>
34-40	33.5-40.5	37	5	185	1369	6845
41-47	40.5-47.5	44	5	220	1936	9680
48-54	47.5-54.5	51	8	408	2601	20808
55-61	54.5-61.5	58	22	1276	3364	74008
62-68	61.5-68.5	65	26	1690	4225	109850
69-75	68.5-75.5	72	4	288	5184	20736
76-82	75.5-82.5	79	2	158	6241	12482
<b>Total</b>			72	1158	30520	92700

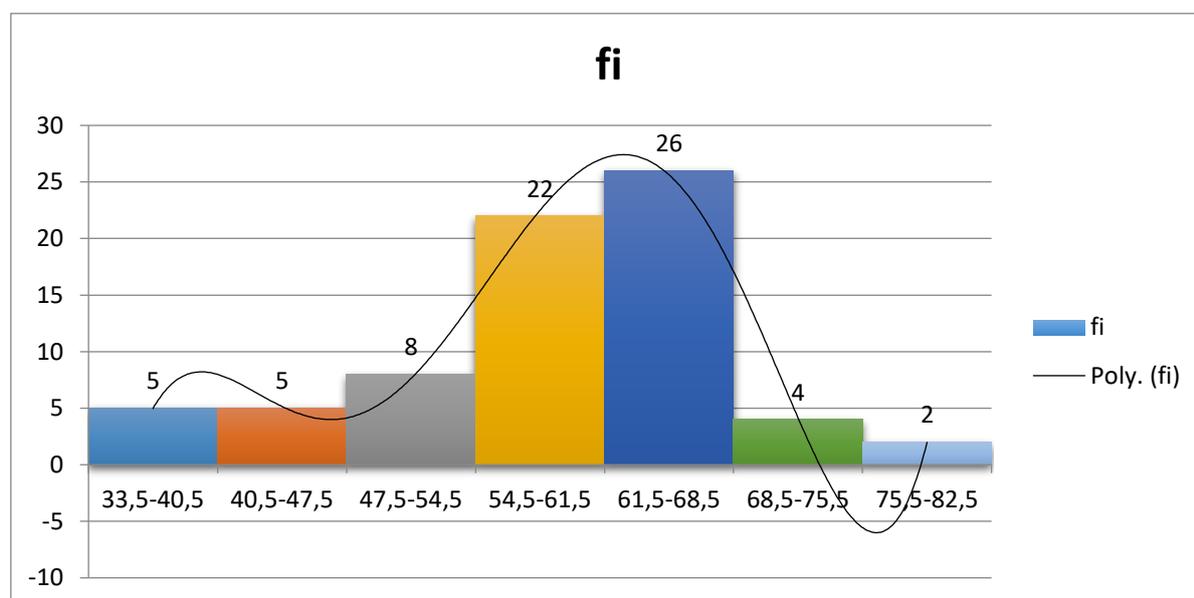


Figure 2. Histogram and Polygon of the Students' Writing Scores  
Taught Using Flipped Classroom

### Hypothesis Testing (Independent t-test)

The researchers used the calculation of t-test to find out whether there was a difference between the score of the experimental group and the score of the control group or not. From the computation of the data using independent t-test obtained the data as follows:

Table 5. Summary of Independent t-test Data

Summary	Experimental Class	Control Class
Mean Score	75.67	58.52
Variance	13.13	27.21
F count		0.05
F table		0.675
t count		14.86
t table		1.65

---

Conclusion	t count (14.86) > t table (1.65) H <sub>0</sub> rejected, H <sub>1</sub> accepted
------------	--

---

Independent t-tests could be used to analyze the data provided that the data came from two independent groups and first had to find out whether the data variance was equal (unequal variance) or not. Therefore, a variance homogeneity test was previously needed. Based on table 5, F count is lower than F table where it meant that the data in this study were of the same variance (equal variance). Then after calculating the independent t-test, it was known that t count (14.86) > t table (1.65) which meant H<sub>0</sub> was rejected and H<sub>1</sub> was accepted. In other words, MALL was more effective in improving students' writing skill when compared to students taught using Flipped Classroom.

## RESULTS AND DISCUSSION

This research is an experimental study conducted to investigate the effectiveness of MALL and Flipped classroom to teach writing analytical exposition text to the eleventh graders of senior high schools in Banyumas regency in the academic year of 2020/2021. Based on the results of this study, it could be said that MALL was more effective than Flipped Classroom to teach writing analytical exposition text.

MALL enables teachers to carry out the teaching and learning process anytime and anywhere as the tools and or the applications possessed by the mobile devices help them to deliver the materials to their students swiftly, interactively, innovatively and interestingly. In this current study nearpod and line were implemented with the support of mobile learning. The teachers allowed the students to utilize their own mobile devices in completing the task so that the students could get benefits from using their mobile devices due to its size and connectivity yields learning adaptable, easy, and useful for them. Research conducted by Naz, et al., 2019; Ishaq et al., 2020; and Kukulska-Hulme, 2019 concur with the finding of the current study which stated that by occupying MALL in learning English, the students could experience the teaching and learning process without having any difficulty and it enables them to be more pliable in any situations as well as it provides various uses to enhance and support the students' language learning.

In learning how to write an English text using MALL, the students were requested to generate and organize their ideas before commencing to write. The teachers elicited the students' prior knowledge by showing some pictures related to any topics and asking what they have known about them. Then the students were asked to discuss with the other students about the given topics and shared the result of their discussions in the collaboration room in the nearpod and in the group note of line application. The teacher also got them to access the internet to find any relevant information pertaining to the topics assigned. It was carried out to support their ideas specifically to enrich their Writing with data and evidence. Having attained any information about the assigned topic, the students started to compose their analytical exposition text writing by writing indirectly in the chat group or typing it on Ms. Word first and shared it in the group.

The next step was the feedback and suggestion of the students' Writing given by the other students and the teacher. The chat room allowed the students to collaborate as well as give peer-feedback on the product of their Writing, and it was all guided and concluded by the teacher after all. After they obtained the feedback and suggestions, they were required to revise their Writing then it was continued with editing their draft in which they focused on content, organization, grammar, vocabulary, and mechanics. In order to enhance the content of their Writing, line apps helped them to write the text well by providing some samples of text writing as well as the related pictures so that the students understood what and how to write. Besides,

the students were allowed to gain as much information as possible from the internet on their mobile phone so that they could have rich and good content of Writing. In improving the students' organization of Writing, these two apps assisted the students by providing the outline of the analytical exposition text containing an introductory paragraph, body paragraphs and a concluding paragraph. The students commenced generating and organizing their ideas by simply writing or listing them down in the chat group, and eventually they could stick on this organization so that they would not get lost or meet a wrong direction regarding their Writing.

To increase the students' Writing with a good grammar and mechanics, the two apps enable the students to write the text concise sentence structure, appropriate use of tenses, and other grammatical features contained in the text. Moreover, due to the fact that the students utilized their mobile phones with an internet connection in it, they could use Grammarly and grammar and spelling checker to check if they have several grammatical errors in their Writing. In addition to checking the grammatical errors, the students were allowed to check articles and word choices using online grammar and spelling checkers as well as the suggesting word choices given by Ms. Word. All this was done in their mobile devices, which enabled them to have a flexible and ubiquitous learning activity. In enhancing the students' vocabulary, MALL allows the students to search for more academic and sophisticated words from the internet in their mobile phones during the draft writing. They collected the words that would be used in their text writing and shared them all in the chat group. In this study, the teacher divided the students into several groups, and each group obtained one topic. Regarding to sharing vocabularies in the chat group, they would not imitate or duplicate the other students' Writing from different groups since they had their own topic. Therefore, by utilizing line group chat or line group note, the students could improve their vocabulary and vary the word choices so that the readers of their Writing would be very interested and enthusiastic to read their text. This finding is in line with several other research such as the ones carried out by Dewi, et al., 2020; Al-Hamad & Al-Jamal, 2019; Hadi & Anggaira, 2017; Karim, et al., 2019; Al-Shehab, 2020; Montaner, 2020; Fithriani, et al., 2019; Karim, et al., 2017; Robles, 2016; Munirah, 2019; and Zaki & Yunus, 2015.

On the contrary, Flipped Classroom enables the students to watch the video of the learning shared in Google Classroom and have a discussion about the video they are watching at home. In the following day, the students come to the classroom and have in-class activities. Due to the fact that the students were having an SFH (study from home) because of COVID-19 Pandemic, the in-class activities were carried out through Google Meet. The students have peer-review about the video they have watched at home beforehand, and they may ask questions to the teacher about what they have not understood about the content of the video. The teacher ensures the students have the same perception about the materials seen in the video. Then, the teacher gives them some other additional activities such as problem-solving, exercises, discussing and collaborating, and creating.

Students will not work productively and effectively if Flipped Classroom/Learning is used to teach Writing. It occurs because the students who have just known this method requires adaptation because of learning autonomously at home. Consequently, they are not ready with the active learning in the classroom. Moreover, the students' interest and motivation to learn writing at home before going to the classroom rely on the teachers when choosing and creating the learning videos and or another material such as a reading text or a sample of a written text. The homework (text and video) must be adjusted appropriately and cautiously in order to prepare the students to join the classroom learning. The teacher also cannot ensure that all students have watched the video at their houses. It happens because not all students have a sufficient internet packet data and or their houses are in a remote area, so that it is hard to get

an internet access to download the video. Consequently, when they come to the classroom, they will ask their teacher to watch the video together, and it is really time-consuming. The thing that actually they students should have watched it at home.

Moreover, by using Flipped Classroom, the teacher will give a model of text to the students during the in-class activity. The students will always imitate the model of text given by their teacher, so they are not capable of writing a text without looking at the model of the text. Furthermore, Flipped Classroom makes the teacher limit the students' creative ideas and thoughts. The teacher often guides the students without considering their creative and innovative ideas. This guidance occurs during the in-class activities where the students interact with the others. Besides, Flipped Classroom causes the students to learn how to write the text themselves beforehand, and it really requires the students' motivation and preferences. The findings of this study revealed that the students were not encouraged to learn the instructions and materials by themselves at home. They preferred to have a direct instruction given by the teachers from the front of the class. Even the teachers could not monitor the students' independent learning and the lack of preparation for the in-class activities could influence the students' motivation, engagement, and creativity. These findings are in line with a number of other studies reporting negative attitudes towards the flipped Classroom (Taylor, 2015; Alghasab, 2020; Betül & Demirer, 2016; and Du et al., 2014).

## CONCLUSION

Based on the result of the hypothesis testing, the research finding is that MALL is more effective than Flipped Classroom to teach Writing. The effectiveness of the teaching methods is determined by the level of the students' creativity. It is recommended for future research that each or several writing activities are taught using mobile devices by which the students can improve their writing skills. This study could have valuable implications for teachers, students, and educators since teaching and learning how to write an English text using MALL can enhance the teachers and students' flexibility, creativity, and active interaction as well as feedback from both the students and the teachers. Furthermore, the findings can provide fruitful information and knowledge to help improving the students' writing skill. The students can also utilize their mobile devices to have an online learning and to be a form of self-study.

## ACKNOWLEDGEMENT

The researchers express special thanks to the Ministry of Research and Technology and Higher Education for funding us to carry out this research. We would like to vastly feel gratitude to all teachers to give us the opportunity to conduct the study in their schools. Last but not least, we from the deepest of our heart would like to thank all of the students who have participated in this study.

## REFERENCES

- Abdelrahman, L. A. M., Dewitt, D., Alias, N., & Abdul Rahman, M. N. (2017). Flipped learning for Esl writing in a Sudanese school. *Turkish Online Journal of Educational Technology*, 2017(November Special Issue IETC), 324–330.
- Abu, A., Karim, R., & Khaja, F. N. M. (2017). Theoretical Perspectives and Practices of Mobile- Assisted Language Learning and Mind Mapping in The Teaching of Writing in ESL Classrooms. *Journal of English Teaching Adi Buana*, 02(April), 1–12.
- Ahmed, H. O. K. (2016). Flipped Learning As A New Educational Paradigm: An Analytical Critical Study. *European Scientific Journal, ESJ*, 12(10), 417. <https://doi.org/10.19044/esj.2016.v12n10p417>
- Al-hamad, R. F., & Al-jamal, D. A. H. (2019). The Effect of Mall Instruction on Teens' Writing Performance. *Digital Education Review*, 0(35), 289–298. <https://doi.org/10.1344/der.2019.35.289-298>
- Al-Okaily, R. (2013). *Mobile learning and BYOD: implementations in an intensive English program. Learning and Teaching in Higher Education: Gulf Perspectives*. 10(2), 1–17. Retrieved from <http://lthe.zu.ac.ae>

- Al-shehab, M. (2020). *The Role of Mobile-assisted Language Learning ( MALL ) in Enhancing the Writing Skills of Intermediate IEP Students : Expectations vs Reality*. 20, 1–17. <https://doi.org/10.32038/ltrq.2020.20.01>
- Alghasab, M. B. (2020). Flipping the Writing Classroom: Focusing on the Pedagogical Benefits and EFL Learners' Perceptions. *English Language Teaching*, 13(4), 28. <https://doi.org/10.5539/elt.v13n4p28>
- Amy Roehl, Shweta Linga Reddy, & Gayta Jett Shannon. (2013). The Flipped Classroom : An Opportunity To Engage Millennial Students Through Active Learning Strategies. *Journal of Family & Consumer Sciences*, 105(2), 44–49.
- Azar, A. S., & Nasiri, H. (2014). Learners' Attitudes toward the Effectiveness of Mobile Assisted Language Learning (MALL) in L2 Listening Comprehension. *Procedia - Social and Behavioral Sciences*, 98, 1836–1843. <https://doi.org/10.1016/j.sbspro.2014.03.613>
- Baleghizadeh, S., & Oladrostam, E. (2010). The Effect of Mobile Assisted Language Learning ( MALL ) on Grammatical Accuracy of EFL Students. *MEXTESOL Journal*, 34(2), 1–10.
- Bergmann, J. & Sams, A. (2012). *Flipped Your Classroom: Reach Every Student in Every Class Every Day*. USA: International Society for Technology in Education.
- Betül, A., & Demirer, V. (2016). Flipping the drawbacks of flipped classroom: effective tools and recommendations. *Journal of Educational and Instructional Studies in the World*, 6(1), 2146–7463.
- Burston, J. (2014). MALL: The pedagogical challenges. *Computer Assisted Language Learning*, 27(4), 344–357. <https://doi.org/10.1080/09588221.2014.914539>
- Chartrand, R. (2016). Advantages and Disadvantages of Using Mobile Devices in a University Language Classroom. 1–13. Retrieved from [http://repository.kurume-u.ac.jp/dspace/bitstream/11316/445/1/gaikens23\\_1-13.pdf](http://repository.kurume-u.ac.jp/dspace/bitstream/11316/445/1/gaikens23_1-13.pdf)
- Cheng, S. C., Hwang, W. Y., Wu, S. Y., Shadiev, R., & Xie, C. H. (2010). A mobile device and online system with contextual familiarity and its effects on English learning on campus. *Educational Technology and Society*, 13(3), 93–109.
- Dewi, A. K., Ratminingsih, N. M., & Santosa, M. H. (2020). Mobile-Assisted Task-Based Language Learning, Writing Competency, And Motivation. *JPI (Jurnal Pendidikan Indonesia)*, 9(1), 119. <https://doi.org/10.23887/jpi-undiksha.v9i1.23164>
- Du, S., Fu, Z., Wang, Y., Stonebraker, B. I. R., Robertshaw, M. B., Kirkwood, H. P., & Dugan, M. (2014). 43295343.Pdf. *International Conference on Economic Management and Trade Cooperation*, (Emtc), 17–20. Retrieved from file:///C:/Users/Dylan Ryan/Downloads/11721.pdf
- Duman, G., Orhon, G., & Gedik, N. (2014). Research trends in mobile-assisted language learning from 2000 to 2012. *ReCALL*, 27(2), 197–216. <https://doi.org/10.1017/S0958344014000287>
- Egbert, J., Herman, D., & Lee, H. (2015). Flipped Instruction in English Language Teacher Education: A Design-Based Study in a Complex, Open-Ended Learning Environment. *Tesl-Ej*, 19(2), 1–23.
- Febriyanti, E. R. (2020). *Journal on English as a Foreign Language LINE application : An alternative tool to develop writing abilities*. 10(1), 68–83.
- Fithriani, R., Dewi, U., Daulay, S. H., Salmiah, M., & Fransiska, W. (2019). Using Facebook in EFL Writing Class: Its Effectiveness from Students' Perspective. *KnE Social Sciences*, 2019, 634–645. <https://doi.org/10.18502/kss.v3i19.4892>
- Gonulal, T. (2019). The use of Instagram as a mobile-assisted language learning tool. *Contemporary Educational Technology*, 10(3), 309–323. <https://doi.org/10.30935/cet.590108>
- Hadi, M. S. & Anggaira, A. S. (2017). The Use of Mobile Assisted Language Learning in Teaching Writing. 15<sup>th</sup> ASIA TEFL & 64<sup>th</sup> TEFLON International Conference. 348-355.
- Halloran, M., & Halloran, M. (2018). *Digital Commons @ Brockport The Development and Integration of Nearpod Materials into a High School Biology Curriculum*.
- Hamdan, N., McKnight, P., McKnight, K., & Arfstrom, K. M. (2013). *A Review of Flipped Learning*. (c), 20.
- Honarzad, R. (2019). Using Mobile Technology in Language Learning: Merits and Demerits. *Journal of Education and Practice*, 10(1), 1–6. <https://doi.org/10.7176/jep/10-1-01>
- Ishaq, K., Zin, N. A. M., Rosdi, F., Abid, A., & Ali, Q. (2020). Usability of mobile-assisted language learning app. *International Journal of Advanced Computer Science and Applications*, 11(1), 354–363. <https://doi.org/10.14569/ijacsa.2020.0110145>
- Kacetyl, J., & Klímová, B. (2019). Use of smartphone applications in English language learning—A challenge for foreign language education. *Education Sciences*, 9(3), 1–9. <https://doi.org/10.3390/educsci9030179>
- Karim, R. A., Ghani, A., Abu, B., Haimi, A., Adnan, M., Dwi, A., ... Road, T. (2018). The use of mobile technology in promoting education 4.0 for higher education. *Advanced Journal of Technical and Vocational Education*, 2(3), 34–39. <https://doi.org/10.26666/rmp.ajtve.2018.3.6>
- Karim, R. A., Idris, N., Ismail, I., Saad, N. H. M., & Abu, A. G. (2019). The impact of utilizing mobile-assisted mind mapping technique (Mammat) on the development of undergraduate students' writing performance. *Journal of Advanced Research in Dynamical and Control Systems*, 11(12 Special Issue), 674–680. <https://doi.org/10.5373/JARDCS/V11SP12/20193264>
- Khubyari, L., & Narafshan, M. H. (2016). A Study on the Impact of MALL (Mobile Assisted Language Learning)

- on EFL Learners' Reading Comprehension. *International Journal of English Language Teaching*, 4(2), 58–69. Retrieved from [www.eajournals.org](http://www.eajournals.org)
- Kim, D., Ruecker, D., & Kim, D.-J. (2018). Mobile-Assisted Language Learning Experiences. *Computer-Assisted Language Learning*, (February), 1059–1077. <https://doi.org/10.4018/978-1-5225-7663-1.ch050>
- Krisbiantoro, B., Pujiani, T. (2019). Flipped Learning for EFL Writing in An Indonesian. E-Proceedings of International Conference on Innovation in Education: Opportunities and Challenges in Southeast Asia, Semarang: 29-30 October 2019. 232-254.
- Kukulka-Hulme, A. (2009). Will mobile learning change language learning? *ReCALL*, 21(2), 157–165. <https://doi.org/10.1017/S0958344009000202>
- Kukulka-Hulme, A. (2019). Mobile Language Learning Innovation Inspired by Migrants. *Journal of Learning for Development - JLAD*, 6(2), 116–129.
- Lai, C., & Zheng, D. (2018). Self-directed use of mobile devices for language learning beyond the classroom. *ReCALL*, 30(3), 299–318. <https://doi.org/10.1017/S0958344017000258>
- Lindaman, D., & Nolan, D. (2017). *M Mobile - a Ssisted L Anguage L Earning* : 45(1), 1–22.
- Mckay, B. L., & Ravenna, G. (2016). *Nearpod and the Impact on Progress Monitoring Nearpod and the Impact on Progress Monitoring*. 27(1), 23–27.
- Mok, H. N. (2014). Teaching tip: The flipped Classroom. *Journal of Information Systems Education*, 25(1), 7–11.
- Montaner, S. (2020). EFL written competence through twitter in mobile version in compulsory secondary education. *Global Journal of Foreign Language Teaching*, 10(2), 101–110. <https://doi.org/10.18844/gjflt.v>
- Naz, S., Rasheed, M., & Rasheed, T. (2019). The Role of Smartphones in Learning English : A Study of Learners ' Perspectives. *International Conference on Research in Humanities*, 17–28.
- Ratnaningsih, P. W. (2018). A Descriptive Case Study of using Line Application for Learning Writing. *EDUVELOP*. 1(2), 158–164.
- Robles, H. (2016). Mobile Learning To Improve Writing in Esl Teaching. *TEFLON Journal*, 27(2), 182–202. <https://doi.org/10.15639/teflinjournal.v27i1/182-202>
- Roehling, P. V., Root Luna, L. M., Richie, F. J., & Shaughnessy, J. J. (2017). The Benefits, Drawbacks, and Challenges of Using the Flipped Classroom in an Introduction to Psychology Course. *Teaching of Psychology*, 44(3), 183–192. <https://doi.org/10.1177/0098628317711282>
- Shimamoto, D. (2012). Implementing a flipped classroom: An instructional module. *TCC Conference*, 9. Retrieved from <http://scholarspace.manoa.hawaii.edu/handle/10125/22527>
- Smith, J. P. (2015). *The Efficacy of A Flipped Learning Classroom*. (Published Dissertation). McKendree University. USA: ProQuest LLC.
- Soler Costa, R., & Han, T. (2017). the Effect of Using a Mobile Application on Efl Learners' Beliefs About Language Learning (Ball). *International Journal of Developmental and Educational Psychology*. *Revista INFAD de Psicología*., 2(1), 229. <https://doi.org/10.17060/ijodaep.2017.n1.v2.935>
- Sultan, J., & No, A. (n.d.). *The Use of Whatsapp Application in Writing Naration Paragraph in Learning Indonesian Language Munirah Universitas Muhammadiyah Makassar Kata Kunci : Whatspap , Menulis , Paragraf Narasi*.
- Taylor, A. (2015). Flipping great or flipping useless? a review of the flipped classroom experiment at Coventry University London Campus. *Journal of Pedagogic Development*, 5(3), 57–65.
- Vemula, R. K. (2018). Mobile-Assisted Language Learning. Retrieved from [researchgate.net/publication/338966307](https://researchgate.net/publication/338966307)
- Yedla, S. (2013). MALL (Mobile assisted language learning): A paradise for English language learners. *IJ-ELTS: International Journal of English Language & Translation Studies*, 1(2), 91–99.
- Zaki, A. A., & Md Yunus, M. (2015). Potential of mobile learning in teaching of ESL academic writing. *English Language Teaching*, 8(6), 11–19. <https://doi.org/10.5539/elt.v8n6p11>