

Research article

Evaluating M-Learning Activities Using SAMR Model and Students' Writing Skills

Sri Lestari* and Tri Wahyuni Chasanatun

Universitas PGRI Madiun, Indonesia

Abstract.

This study examines (i) the use of mobile technology (Padlet, Animoto, and Sway) in teaching English to non-English department students by evaluating the M-learning activities using the SAMR model and (ii) students' writing competence using the CEFR model. The subjects of this study were 152 second-semester students of the primary education department. In this qualitative descriptive research, data were collected through questionnaires, observation, and documentation. The results show that: (i) Padlet is categorized to substitution, augmentation, and modification classification, while Animoto and Sway are categorized to substitution classification; and (ii) the percentages for students' writing ability levels were 60.52% for basic user A1, 31.57% for basic user A2, and 7.89% for independent user B1 after they joined the class using various applications.

Corresponding Author: Sri
Lestari; email: EMAIL

Published: 28 September 2022

Publishing services provided by
Knowledge E

© Sri Lestari and Tri Wahyuni
Chasanatun. This article is
distributed under the terms of
the [Creative Commons
Attribution License](#), which
permits unrestricted use and
redistribution provided that the
original author and source are
credited.

Selection and Peer-review under
the responsibility of the ICESRE
2021 Conference Committee.

Keywords: SAMR model, Padlet, Animoto, Sway, writing skill, CEFR

1. Introduction

The second semester students of Primary Education learn Basic English as one of the subjects for 2nd semester. This subject is aimed at improving students' four basics skills in English, namely: listening, structure, reading, and writing. The problem faced by the students is they still think that English is a difficult subject, especially in writing. They have a problem in developing the idea. Therefore, the researcher applied some applications of mobile technology, called: padlet, animoto, and sway. Then the usage of those applications will be evaluated by the SAMR Model from Puentedura. In addition, evaluation related to students' writing is checked by using the CEFR Model.

M-Learning or Mobile Learning Activities is an activity on teaching and learning using a mobile phone. Mobile learning is kind of mobile technology that can be used by a teacher/lecturer and also the students in classroom or even outside the classroom [1]. As we know that Mobile Phone/Smartphone is not only used for communication, but also it has the power to be a tool in academic activities. It is suitable for middle and

 OPEN ACCESS

higher education. The benefits of using mobile phone in teaching and learning is enable connecting the users (teacher/lecture with students) to many information, and enabling them to interact each other everywhere and anytime [2].

The applications that the writer chose for M-Learning in teaching writing are animoto, padlet, and sway. Padlet is an easy tool for teacher/lecturer and students. This tool can be used as a media to share the task, give comment between teacher/lecture to students and between students to students. Meanwhile, sway is the learning media that is used to make a report or story for presentation. Then animoto, is a media to create a short video, by adding photo and music [3].

In this article, SAMR model is for evaluating M-Learning activity. In order to evaluate the activities of using these three application, SAMR Model consists of; (1) Substitution, it means that the technology provides a substitute for other learning activities without fractional change; (2) Augmentation, which means that the technology provides a substitute for other learning activities but with functional improvements; (3) Modification: The technology allows the learning activity to be redesigned; (4) Redefinition: The technology allows for the creation of tasks that could not have been done without it [4].

According to John Trim [5] CEFR is a framework that is published by Council of Europe in 2001. It describes language learners' ability in the term of speaking, reading, listening, and writing. Since that year, CEFR (Common European Framework of References) is known as the basic collaboration of language syllabuses, curriculum guidelines, examinations, textbooks, and many more [6]. CEFR provides direction tools in order to enhance teaching and learning [5]. The teacher can use CEFR in designing curricula and syllabuses, teaching process, and lesson planning. The three definition of blended learning are (1) it is a combination of traditional face to face interaction with computer-based activities; (2) it is a kind of face two face interaction which combine different media and different tools of technology; (3) or it is a combination of different teaching approaches [7]. CEFR or Common European Framework of References for Languages is focused on "Learning, teaching, assessment". It is used to give a reflection on the assessment, the implication of assessment, and multidimensionality in the professional discourse [8].

The article discusses the blended learning which combines three different tools of technology (padlet, animoto, and sway) in Teaching English for Non-English Department students and evaluated m-learning activities using the SAMR model. The writer focuses on the writing skill. The CEFR assessment of students' writing, especially on writing skill, It is divided into three kinds of production. They are overall written production, creative writing, also reports and essays. The implementation of CEFR combined with three tools

of technology in this article is learning as the center process. It also helps the lecturer to design tasks and adapt materials for 'next level'. Meanwhile, to know about the existence of three technologies (padlet, animoto, and sway) the writer uses the SAMR model. Puentedura is a founder of SAMR (Substitution, Augmentation, Modification, and Redefinition). In the implementation of the SAMR model, there are some preparations, such as lesson plans. It can be described as follows: the application of SAMR Model consists of four, Substitution level, Augmentation level, Modification level, Redefinition level. Nyayu et.all give the clear example of each levels, they are: (1) in the substitution level, the students writing in a paper, in this case they typing it on a mobile device such as google drive, Microsoft office online, Evernote, or ether pad; (2) Augmentation levels, in this level they use mobile devices or tools technology, and from this writing activities, they are able to highlight words, check spelling, and adjust the font format style; (3) Modification levels, the students can complete their writing by add images, sounds, animation, and videos; (4) Redefinition levels, students can post their written product through their class blogs and share to social network. Therefore, in this article the writer wants to analyze the students writing using CEFR and the use of tools

2. Method

Descriptive qualitative research is utilized to evaluate: 1) the use of three mobile technologies (padlet, animoto, and sway) as learning tools in teaching writing, and those mobile technology will be analyzed using SAMR framework for Puentedura [9] and 2) students' writing after using those applications based on CEFR Model. The methods of collecting data were analyzing the observation sheet of the teaching learning process and students writing based on the CEFR Model. The observation was administered for six meetings since the lecture taught writing for different topics in six meetings. During the observation, teaching learning activities in the classroom were video-recorded to help analyze and interpret the findings. The result test is gained from students writing about: past experience in sway application, describing someone, someplace, or things in padlet application, and products branding in presentation activity in animoto application. Then in analyzing the data, the researcher synchronized data from observation and students' writing results. Then, the synchronized data displayed in relation to the purposes of this study to find out stages of technology integration in which Padlet, Animoto, and Sway are employed in the classroom and portray the process of how it is used. After that, the data were reduced to general themes in order to focus on what is sought in this study. By reducing data, data has been classified into categorized based

on the SAMR model [9] in which its classification involves Substitution, Augmentation, Modification, and Redefinition. Then, students' writing skills are evaluated by using the CEFR model. At the end of the day, the data were sufficiently arranged to move into the analysis of the data, where the results were interpreted to become the findings and the conclusions. By doing so, it is expected that this study results in comprehensive, thorough findings and discussion.

The sample of this study was 152 participants derived from the second semester students of the Primary Education Department of private University in Madiun. The research was conducted in 2019. The researcher collaborated with the lecturer to design research related to applying padlet, animoto and sway in teaching English for second semester students. Those applications used for activities in online activities as practice learning after students got material in an offline classroom.

3. Findings

Lecturer used three applications as media in supporting English teaching process, namely: padlet, sway, and animoto. The applications were used for different topics and activities in one semester. This research has aimed to evaluate and determine whether those applications meet the goal as transforming learning or not. Therefore, the researcher classified and evaluated those applications used in the SAMR Model to enhance the quality of teaching. The letters "SAMR" stand for Substitution, Augmentation, Modification, and Redefinition. [9] states that to enhance the learning, substitution and augmentation classification implemented in learning activities, and while to transform learning, modification and redefinition classifications implemented in learning activities.

The teaching learning process used in this class was blended learning, whether the teaching was done in the classroom (offline) and online. To support the understanding material, the teacher gave assignments for students by using mobile technology, called padlet, sway, and animoto. The first application used in this learning activity was padlet. Padlet is a media for students in sharing ideas, giving comments, and revising what they wrote [3]. Padlet was used for second and third meetings, and the topics discussed were about: describing place, people, and things. The learning outcomes of "How Does She/he/it Looks Like", are: 1) Students can identify the characteristics of a descriptive paragraph, 2) students understand the language feature used in writing descriptive paragraphs. At the second meeting the lecturer showed a video about tourism objects in Japan, then the lecturer asked some questions related to the video. Also, the lecturer

and students discussed what language feature used in describing the paragraph. Then the lecturer explained how to use Padlet, so for the next meeting, both lecturer and students can evaluate students' tasks online. For describing place activity, students posted their text then attached a related picture. Students wrote it in google docs with their pair then copied it in a padlet. For describing people's topics, students recorded their sound then posted it. On this topic they worked collaboratively, either wrote or gave comments to their friends' paragraphs. The last one, for topics describing things, students wrote individually and posted their writing, and the activities of evaluation were similar to the previous activities.

For the fourth and fifth meetings, students learned about past activities "What did you do"? and the learning outcome of this topic is: 1) students can identify how to write a recount paragraph (past experiences), 2) students can understand the language feature used in writing past experiences. For those meetings, the application used was swayAt fourth meeting, the lecturer explained the recount paragraph, the language feature, and how to use sway. Then for the fifth meeting, students present their paragraph via online. Sway is similar to Powerpoint, but it is more interesting because the performance of sway application is more interactive and it is used online. The activities in the classroom are writing and speaking. Students wrote their content first in sway app, then presented it in the classroom. Not only writing, students also posted the picture, and shared a link to support their writing project.

The last application used was animoto. Animoto was used by the lecturer on the presentation topic, namely branding products. It allows the user to create short eye catching videos. For this occasion, students did two activities; writing and speaking. First, for writing activities, they wrote an introduction, summary, or reflection of the material of presentation directly in animoto application. Then, for speaking activities, they presented it in the classroom. The use of animoto was just to make their presentation interesting because students can add the picture and choose background music to make their presentation more fascinating.

Based on the findings above, the mapping of three applications in this research can be seen in table 3.1 below.

After researchers evaluated the function of padlet, sway and animoto applications at SAMR level. Next researchers evaluated students' writing skill using the CEFR model after implementing those three applications. Based on the students writing result, the researchers can categorize students' ability using CEFR Model:

TABLE 1: The result of padlet, animoto, amnd sway on SAMR model.

	Padlet	Sway	Animoto
S (Substitution)	-	-	as a direct substitute without functional change whether students only write and add the music as back song for more fascinating slides
A (Augmentation)	-	as a substitute for functional improvements whether students include photos, videos, and other graphics in their Sway to help classmates visualize the setting and time period of the book.	-
M (Modification)	as a redesign process whether students can post videos, comment, record, and students can collaborate with friends.	-	-
R (Redefinition)	-	-	-

TABLE 2: CEFR framework of students Writing.

Total of students	Category	Descriptions
56 (36.84%)	A1	Students can write short and simple phrases and sentences
84 (55.3%)	A2	Students can write a series of simple phrases and sentences linked with simple connectors like “and”, “but” and “because”, but sometimes students do basic mistakes in grammar (verb agreement, for example:
12 (7.89%)	B1	Students can write straightforward, detailed descriptions on a range of familiar subjects within his field of interest and narrate the story; having good accuracy in grammar and sufficient vocabulary

4. Discussion

Based on the SAMR framework, The use of technology can be categorized into Substitution, Augmentation, Modification, or Redefinition Level, and it depends on how to use and maximize that application. For example, Sway, based on evaluation from SAMR Framework, it can be defined that sway is in substitution level if students used sway as a replacement of handwriting process. Then, at the Augmentation level, if students include photos, videos, and others in helping students visualize their story. Next, at the Modification level, students utilize the voice, so they present it online. The

last, as a redefinition level, in order to create a gallery of papers, the students should create a Sway that ties all presentations together and work together in real time, also students can add editors to their task [10]. Therefore, some applications can be modified by a lecturer or teacher in adjusting the topic or learning outcome.

Based on the findings, the Padlet implemented by the lecturer in teaching writing was a part of the Modification level. Based on the activities done in the classroom, the padlet is categorized into modification level because the padlet is not only used as media in teaching but also as a redesigned process. [11] states that at the Modification level, many learners feel interested, build a positive mindset and discover an authentic learning intention. By using padlet, students were not only using padlet as media in posting their work, but they could enrich their assignments by adding images, sounds, and videos. They also could write paragraphs or text collaboratively in a group, then the classmates and lecturer could review collaboratively by giving comments and explanations. As stated by [12] that padlet is the perfect place to gather ideas, exchange ideas and modify them in the future. It encourages students to create and gather ideas, pictures, quotes, and other items in one wall. Padlet has been used to teach writing skills in a variety of studies. These include research that concentrate on student participation in the classroom, the evaluation of student understanding [3] and the efficacy of student writing skills [13]. Thus, based on students activity in the padlet, the padlet is concluded as part of the Modification level. It is related to Jati[13] states that the example of modification level in using a padlet is when students share their integrated notes in a padlet then their classmates will give feedback. As a result, it leads to real improvement of their writing.

Based on those activities, sway is part of augmentation level. Based on the Puentedura model in Khazanchi[10], Sway can be classified as Substitution, Augmentation, Modification, or Redefinition depending on students' activities in using Sway. For substitution level, sway only used by students as replacement of handwriting process. Then, as Augmentation level, if students include photos, videos, and others in helping students visualize their story. Next, at the Modification level, students utilize the voice, so they present it online. The last, as a redefinition level, in order to create a gallery of papers, the students should create a Sway that ties all presentations together and work together in real time, also students can add editors to their tasks. However, in this research, students only do activities in Augmentation level. It has a function to replace the handwriting on paper whether students typed it on digital tools, such as Microsoft office then copy it into sway applications. Also, for augmentation level, students can check spelling, adjust the format and style and add picture or video as additional

material to support what they wrote. Also, Jati[13] states that Augmentation is when the teacher is giving an assignment for students to write a story online individually in a blog with pictures and links, and the changing applied in this level can improve students' understanding, but it's not transformation.

Furthermore, the next tool used was Animoto. Based on students' activities and findings, animoto is part of the substitution level, whether the students add pictures and write tagline individually then they present. According to [13] in substitution level, the use of technology just replaced paper and pen, and it is more efficient but no learning gains. Therefore, it has functioned as a substitute for functional improvements. The lecturer chose animoto as one tool used in order to attract students' participation in learning. The use of animoto was like a refreshment, so students were interested in making short videos.

In addition, refer to students writing after joining class six meetings, it can be concluded that the Majority students writing ability was in A2 level. Then, one third percentage was at A1 level, and the rest of students writing percentage was at B1 level around 7.89 %. Based on students writing before implementing those tools, the half of students were part of A1 level. It happened because the various activities done in using those tools rather than students write traditionally (hand written process). For example, in using the padlet and sway, students worked collaboratively with friends and evaluated their paragraphs. Before they posted their paragraph, they typed the paragraph first and wrote collaborative with friends in Google Doc. Thus, it helps students minimize their mistakes in language use, such as: grammar and vocabulary. It is relevant with previous research done by [12, 14-16] that after implementing padlet in class, students' writing ability improved. Thus, the use of tools has positive impacts for students' engagement and writing results.

At A1 Level, Students can write short and simple phrases and sentences, for example; in describing people: "*She has a flat nose*", then for past experience: "*I ate meatball in the seashore*", next at the presentation "branding": "*The product is made from wood*". The students wrote simple sentences because they lacked vocabulary and the understanding of using appropriate grammar in writing, so 37% of the students still wrote with the help of a dictionary. Then, at A2 level, students can write a series of simple phrases and sentences linked with simple connectors like "and", "but" and "because", but sometimes students do basic mistakes in grammar (verb agreement, for example: (1) describing people: "*She is medium height and tan skin*", (2) past experience: "*I was late watching the concert because my friend asked me to buy snacks first*". (3) presentation "branding": "*Adidas is one of the most popular shoes in the world because of quality*". In

this level, students write simple structures, but systematically make mistakes, especially in grammar. The last ones, 12 students can write straightforward, detailed descriptions on a range of familiar subjects within his field of interest and narrate the story; having good accuracy in grammar and sufficient vocabulary, and they were categorized into B1 level. Here is the example of students' writing: (1) describing people: "*She is medium height and tanned skin*", (2) past experience: *I was late watching the concert because my friend asked me to buy snacks first in the supermarket*, (3) presentation "branding": *Adidas is one of the popular shoes in the world because of its quality and the model*. Therefore, based on those findings, it can be seen as an evaluation for lecturers to use appropriate methods, media, and strategies in teaching language. It is relevant with previous research that the use of CEFR as fundamental changes to teaching learning, and assessments [16]

5. Conclusion

Based on SAMR model it can be concluded that padlet is categorized to modification classification, while sway was categorized to augmentation classification, and animoto was substitution level. The SAMR based evaluation of using tools as media in teaching in order to consider in choosing appropriate tools or applications based on learning outcome and students' needs. Furthermore, related to students writing skill, the percentage of students' writing ability in level ability basic User A1 was 36.84% , basic user A2 was 55.3% , and Independent user B1 was 7.89% after they joined the class using various applications. Doing CEFR framework evaluation in students' competence in writing had function to consider what language learners have to learn in order to enhance the quality and success in teaching and learning process and assessment.

References

- [1] Beddall-Hill NL. Making mobile learning work: case studies of practice. ESCalate HEA Subject Centre for Education. 2011 Apr;18–22.
- [2] S. Vosniadou and Σ. Βοσνιάδου, *International perspectives on the design of technology-supported learning environments*. L. Erlbaum Associates, London, United Kingdom, 1996.
- [3] Lestari S, Chasanatun TW. Applying technology in teaching English: Padlet, animoto, and sway. Proceedings of the 2nd Social Sciences, Humanities and Education Conference: Establishing Identities through Language, Culture, and Education

- (SOSHEC 2018). 2018;222:77-80.
- [4] Romrell D, Kidder L, Wood E. The SAMR model as a framework for evaluating mLearning. *Online Learning Journal*. 2014;18(2):1-15.
- [5] Trim JL. Using the CEFR: Principles of good practice. University of Cambridge ESOL examinations. University of Cambridge, United Kingdom, 2011.
- [6] Council of Europe. Council for cultural co-operation. Education committee. Modern languages division. Common European framework of reference for languages: Learning, teaching, assessment. Cambridge University Press; United Kingdom, 2001. Available from: http://www.coe.int/t/dg4/Linguistic/CADRE_EN.asp
- [7] P. Sharma, "Blended learning.," *ELT (English Language Teaching) Journal*. vol. 64, no. 4, pp. 456–458, 2010
- [8] E. Piccardo, "Multidimensionality of assessment in the Common European Framework of Reference for languages (CEFR).," *OLBI Working Papers*. vol. 4, no. 1, pp. 37–54, 2012
- [9] Puentedura RR. SAMR and TPCK: Intro to advanced practice. 2010. Available from: hippasus.com/resources/sweden2010/SAMR_TPCK_IntroToAdvancedPractice.pdf
- [10] F. Malaeb-Khaddage, F. Malaeb-Khaddage, and H. Crompton, "Use of Microsoft SWAY in making Engaging Digital Stories for Students with Disabilities in K-12 classrooms.," *Society for Information Technology & Teacher Education International Conference*. vol. 2018, no. 1, pp. 2436–2441, 2018
- [11] Bloemsa MS. Student engagement, 21st century skills, and how the iPad is transforming learning in the classroom. Irvine: University of California; 2013.
- [12] Algraini FN. The effect of using padlet on enhancing EFL writing performance [MA thesis]. Riyadh: Imam Islamic University; 2014. Available from: <https://www.awej.org/index.php/theses-dissertations/878-farah-nasser-algraini>
- [13] A.G. Jati, "THE USE OF SMARTPHONE APPLICATIONS IN ENGLISH LANGUAGE TEACHING AND LEARNING.," *Jurnal Socioteknologi*. vol. 17, no. 1, pp. 144–153, 2018.
- [14] Mahmud MZ. Students' perceptions of using padlet as a learning tool for English writing. *Journal of Creative Practices in Language Learning and Teaching (CPLT)*. 2019;7(2):29-39.
- [15] Taufikurohman IS. The effectiveness of using padlet in teaching writing descriptive text. *JALL (Journal of Applied Linguistics and Literacy)*. 2018;2(2):71-88.
- [16] Istianah L. The use of padlet application to improve writing skills of the tenth grade students of smk n 2 salatiga in the academic year 2018/2019 [Doctoral dissertation]. IAIN SALATIGA, Salatiga, Indonesia