ESPublisher

THE EFFECT OF USING WORDWALL ASSISTED FLASHCARDS IN STUDENTS' PROCEDURE TEXT READING ACHIEVEMENT

Natasya Alaina Nurylah *[1], Mochamad Hatip [2], Kristi Nuraini [3]

[1,2,3] Department of English Language Education, Universitas Muhammadiyah Jember, East Java - Indonesia

Corresponding author: Natasya Alaina Nurylah (tasyanurylah@gmail.com)

Abstract
Finding out the element that influences reading achievement in a second/foreign language (L2) is essential for L2 teachers to improve learners' L2 reading skills. Some studies have been conducted to investigate the factors in term of learning media particularly flashcard that has an impact on reading comprehension. However, flashcard media has a variety to implement in learning process such as wordwall assisted flashcard. The current study fills this gap by examining the relationship between that learning media and reading comprehension in English as a Foreign Language (EFL). The base allegation of this study is that flash cards as learning media may have an impact on students' reading comprehension to grasp the information in a procedure text. Two kinds of procedure text were used on reading reading tests (pre-test and post-test) that was accomplished by fourty seven EFL students. They were divided into two classes to find the difference in reading abilities of students who were treated using flashcards and students who were not. The results from the two tests will be compared to determine the impact of using flashcards as learning media on students' reading comprehension. The statistical analysis's findings showed significant differences in EFL reading comprehension according to test score, indicating that wordwall assisted flashcard plays a crucial role in shaping EFL learners' reading achievement. These results provide insightful information on how flashcards as learning media might be implemented and organized to support L2 learners in enhancing their L2 reading skills. The study infers with a few suggestions for further study in the areas of flashcards as L2 learning media and L2 reading.

Keywords: Reading Comprehension, English as a Foreign Language (EFL), second/foreign language (L2), Wordwall Assisted Flashcards, Learning Media

1. INTRODUCTION

Reading comprehension is essential in second/foreign language (L2) language as this skill constitutes the foundation for creating and understanding meaning clearly in certain contextual conditions. It is influential for L2 learners when reading procedure text which is designed to describe how something is accomplished through a series of actions/steps to achieve a goal in accordance with the directions. At the junior high school, L2 learners are

ESPublisher

_____

expected to easily grasp the idea and information of the procedure text since one of the early cognitive skills that learners develop is the ability to sequence (Knapp and Watkins 2005). Unfortunately, the majority of L2 learners in junior high school still struggle to operate at that level. Based on the results of the Tuesday, December 3, 2019, PISA (Programme for International Students Assessment) assessment, Indonesia's literacy score is placed 72nd out of 77 nations.

Related to the data above, the factors that influence L2 reading comprehension are complex and heterogeneous. One crucial factor that warrants investigation is learning media. That is, variations in learning media potentially affect L2 reading comprehension since it predisposes students' interest and ability in the learning process. This is because the students' L2 knowledge and understanding are strengthened in the classroom when teachers engage students in active learning (Alexakos 2015). However, in order to improve and motivate L2 learners towards reading procedure text, teachers need to discover effective learning media such as flashcards. Flashcards are typically visual media which can encourage L2 interest and improve L2 reading comprehension. Hence, understanding the role of flashcards media in improving L2 reading comprehension can inform L2 instructional practices that potentially enhance L2 reading performance among L2 learners.

2.   LITERATURE REVIEW

In the context of L2 Reading, reading comprehension may be defined as the ability of L2 learners in understanding the meaning and integrating a text based on their background knowledge. Thus, interaction between reader and the text would involve complex processes, knowledge of words, and knowledge of the world. Furthermore, in the process of text comprehension, readers do not only understand one sentence, but also a series of sentences that are interconnected and form different parts of the text.

According to (Abidin 2012), reading comprehension is not enough being able to read, but is also a process that involves all of the students' mental activities and thoughts in understanding, criticizing and applying procedural texts. In addition, reading means critical creative processing by the reader to obtain a deep understanding of the reading, followed by an assessment of the state, value, function, and impact of the reading so that everyone has different goals in reading, some of us read to get information.

From the theoretical standpoint, the conceptualization of L2 reading comprehension in this study aligns with the five elements composed by (Kosasi, 2007; Linse, 2005; Latulipe, 2021; Segretto, 2002; Tarchi, 2015). These elements suggest that it helps L2 learners to comprehend the English text as clearly as possible. When applied to L2 comprehension, these five elements can be explained as follows:

Initially, the main Idea, it serves as the foundation for the development of a paragraph. L2 learners should grasp necessary information that is aligned with the text without unnecessary or excessive interpreting.

ESPublisher

In terms of vocabulary, vocabulary refers to the set of words a person is familiar with. L2 learners should grasp each word in the sentence based on the given context, since many English vocabulary have multiple meanings.

With respect to reference, it is a subject pronoun which uses redundant repetition of terms or expressions. L2 Learners should grasp the pronouns to locate related content elsewhere in the text.

As regards supporting ideas, it is composed of facts and notions intended to elucidate or substantiate the main assertion of the main idea. L2 learners should grasp the additional details with a deeper understanding of the primary concept or subject such as facts, comparisons, and cause-and-effect relationships pertaining to the topic statement.

Finally, Inference, L2 learners should grasp the information presented through their background knowledge to draw deductions based on the text.

In the context of current study, the term of L2 reading comprehension is thus conceptualized as the extent to procedure text grasped by L2 learners are aligned with the specified writing-text instructions and a series of specific actions or steps. For example, if the procedure text conveys the steps on how to make a cheese omelet, it means the instructions require the learner to make it specified based on a text. L2 Reading comprehension is achieved when the learner produces a cheese omelet based on the target referents (procedural steps) conveyed in the text, rather than, say, making a fried egg or making a cheese omelet that is out of tune to the target referents. To this end, L2 reading comprehension encompasses successful understanding of ideas that meets action demands of the procedure text.

As regards L2 reading comprehension, this study will implement a visual and interactive approach for learning methods. It is in line with (Ferdila 2014) that teachers must find the right techniques to encourage students' interest in teaching at various school levels in learning to read procedure text using various media. Furthermore, (Sudjana 2005) states that the use of flashcards as a visual tool in English language teaching, has the advantage of stimulating students' minds and activating their visual memory. Flashcards are visual tools that are considered to be fun learning in reading activities. Therefore, the benefits of flashcards are very effective in improving L2 reading comprehension and acquisition of new words.

The impact of technological advances makes it easier for teachers to prepare and create reading learning media such as Wordwall Assisted Flashcards that serves as a visual aid in classrooms, displaying words on a wall or bulletin board to reinforce learning materials (Baumann, Ware, and Edwards 2007; Brabham and Villaume 2001; Blachowicz et al. 2006; Fisher et al. 50AD; Rycik 2002) and contributes to creating a conducive reading environment.

By incorporating those conceptual stances in conceptualizing L2 Reading comprehension, L2 researchers or teachers can evaluate the reading comprehension of L2

ESPublisher

_____

learners. Existing research in this area has primarily focused on the impact of flashcards as media on L2 reading comprehension (see e.g., Agustina, 2023; Nashir, 2018; Annur, 2023). Therefore, this current study aims to contribute to this line investigation. Accordingly, this research question for this study is formulated as follows: Does flashcards as learning media operationalized have a differential effect on L2 reading comprehension in the procedure texts grasped by learners of L2 English?

3.   METHOD

The current study employed quasi-experimental research with a quantitative approach. The independent variable was flashcards media whereas the population will be divided into 2 classes: (1) Experiment class (class will be treated using flashcard media), (2) Control class (class will be taught with book media commonly used by teachers). The dependent variable was L2 reading comprehension.

The population of this study were given pre-tests to measure their reading comprehension abilities before being treated using flashcard learning media. The treatment was only conducted in experiment class on the other hand the control class was not. After treated, the student will be given a post-test to evaluate the outcomes of using flashcard learning media.

All the tests in this current study used two varieties of procedure texts (see Figure 1 below). The first procedure text conveys information on how to make dalgona coffee. The second procedure text conveys information on how to make french fries. Thus, the tasks differ in the contents (objects or referents) that learners need to understand when reading procedure texts. All the procedure text were retrieved from https://static.buku.kemdikbud.go.id.

_____

Table 1. Procedure text used in the test.

Procedure Text I	Procedure Text II
How to Make Dalgona Coffee Ingredients: • 2 teablespoon instant coffee • 2 teablespoon sugar • 2 teablespoon hot water • Few ice cubes • 1 cup cold milk Tools: • Bowl • Mixer • Spoon • Cup Step: • First, place coffee sugar and hot water into the mixing bowl • Second, whisk vigorously until it's creamy, foamy and soft peaks appear using a mixer • Next fill only ¾ of a cup with cold milk and ice • After that, Top it generously with foamy whipped coffee. • Finally Dust some instant coffee powder on the top of it. • Serve it.	How to Make Friench Fries Ingredients: • Water • Potatoes • Cornstarch • Mayonnaise • Salt • Cooking oil Tools: • Pan • Basin • Sieve and Spatula • Knife • Frying pan • Cutting board Steps: 1) First, peel the potatoes using knife and wash them 2) Second, cut the potatoes into several pieces and put them on basin 3) After that, soak the potatoes with water and salt, wait for 30 minutes or more, and drain them 4) Then, boil them over medium heat for 5 minutes, and drain carefully 5) Next, let the steam evaporate 6) Coat the potatoes with cornstarch 7) Then, fry the potatoes until it's brown in color, drain them with sieve 8) Last, sprinkle it with salt 9) Enjoy it with mayonnaise

The target population in this study was Indonesian junior high school students (22 in control class and 25 in experiment class. All of these learners were students at SMP Plus Raudlatut Tholabah Jenggawah in Jember Regency, East Java Province, Indonesia. At the time of the study, the learners were sitting in first grade in the even semester of the 2023/2024 academic year.

During data collection, the type of question related to the procedure text (see table 1) on the test was multiple choice which learners should answer. In the test, the students will be provided 13 questions with 4 choices or options for each number to ease them eliminating the possible answer.

The task instructions were given in the learners' first language (Indonesia) to ensure clarity and avoid misunderstanding. Generally, the instructions stated that the learners should read procedure text based on the pictures in table 1 and answer the question correctly. The learners were also informed that they only needed to answer it using their own knowledge. They were not allowed to ask for specific English words to use or to refer to a dictionary, book, smartphone, etc. The learners were given 30 minutes to complete the test.

After the learners finished the test, the results were assessed to determine the score of the reading test. To do so, the correct answers were scored 1, while the incorrect answers were scored 0. The final score for the EFL reading test was obtained by dividing the total number of questions, multiplied by a hundred.

Finally, the scores achieved by the learners were analyzed using Normalized-Gain (N-Gain) to determine whether there were significant differences in the learners' reading

_____

comprehension between learners who treated using flashcard media learning than conventional learning

4. RESULTS and DISCUSSION

a. Results

The descriptive statistics of the scores achieved by the learners are presented in Table 2.

Table 2. Descriptive statistics of the result of pre-test and post-test learners.

DEPENDENT VARIABLE		Minimum Score	Maximum Score	Mean
PRE-TEST	Experimental	0	100	45.50
	Control	8	85	38.36
POST-TEST	Experimental	46	100	73.09
	Control	23	69	42.80

As shown in Table 1. The minimum and mean scores between pre-test and post-test increased. This initial evidence suggests that flashcard learning media contributes to differentiating L2 reading comprehension, as reflected in the scores obtained by the learners when completing the test after and before treatment.

To determine the significance of the differences in the scores, a N-Gain was conducted. The results revealed a significant difference in the scores of the reading comprehension test based on the treatment given, i.e., F=3.190, p=0.001. These results can be concluded that there is a significant difference in reading comprehension performance between the control group and the experimental group. Furthermore, it indicates that flashcard media learning plays a crucial role in shaping the learners' reading comprehension.

b. Discussion

With the result in mind, the current study extends the existing literature by emphasizing the importance of varieties of learning media, particularly flashcards in L2 reading comprehension. It also aligns with previous research that has examined the impact of flashcard media on L2 use during reading (e.g., Agustina, 2023; Nashir, 2018; Annur, 2023). At the same time, this study provides novel insights into the effect of flashcard learning media on L2 reading achievement. What is more, by operationalizing strategies wordwall assisted flashcards as learning media that teachers needed to consider in improving acquisition of words in reading and reading comprehension of written text, this study shed light on how visual media stimulates student's minds across the reading text.

ESPublisher

_____

The findings of this study also have implications for L2 instructional practices. Specifically, L2 teachers can benefit from understanding the role of learning media, especially flashcards, in improving L2 reading comprehension. By implementing varying strategies of flashcards in reading learning, L2 teachers can provide learners with opportunities to develop their ability on reading comprehension and student interest in L2 reading text (Sudjana 2005). This can enhance learners' overall L2 reading proficiency and will potentially contribute to their developing L2 knowledge as well.

Moreover, the conceptualization of L2 reading comprehension is based on the five elements composed by (Kosasi 2007; Linse 2005; Latulipe 2021; Segretto 2002; Tarchi 2015) in the current study a valuable standpoint for evaluating the ability of reading comprehension L2 learners. By considering the elements of Main Idea, Vocabulary, Reference, Supporting Ideas, and Inference, the current study was able to assess the reading comprehension of learners' understanding in terms of grasping necessary information, examining vocabulary according to context, concluding statement L2 use. This comprehensive approach to evaluating L2 reading comprehension can guide pedagogical practices and help L2 learners enhance their reading skills in alignment with communicative goals.

While this study provides significant insights, it is not without limitations. First, the study focused on Indonesian junior high school learners. Hence, the generalizability of the findings to other contexts should be approached with caution. Future research, therefore, is needed to replicate the study with diverse learner populations to validate the influence of wordwall assisted flashcards as learning media on L2 reading comprehension. Additionally, investigating other factors that may interact with this learning media, such as language proficiency and cognitive abilities, would contribute to a more comprehensive understanding of the dynamics involved in L2 reading comprehension.

Despite the limitations, the current study contributes to the field of L2 learning media and L2 reading by highlighting the role of wordwall assisted flashcards in improving learners' reading comprehension

5. CONCLUSION

The current study has explored the influence of wordwall assisted flashcards on reading comprehension in English as a foreign language (EFL) and provided evidence that flashcards as learning media plays a crucial role in EFL reading comprehension. The findings established in the current study underscore the importance of considering learning media in L2 instructional practices (Sudjana 2005). Furthermore, by implementing wordwall assisted flashcards as learning media based on the five elements of reading comprehension composed by (Kosasi 2007; Linse 2005; Latulipe 2021; Segretto 2002; Tarchi 2015), L2 teachers can facilitate the development of learners' L2 reading comprehension and promote successful communication in the L2 context. However, further research is encouraged to

_____

explore additional factors and replicate the study in diverse settings, thereby advancing our understanding of L2 reading and its instructional implications.

References

Abidin, Yunus. 2012. "Model Penilaian Otentik Dalam Pembelajaran Membaca Pemahaman Beroreintasi Pendidikan Karakter." *Jurnal Pendidikan Karakter* 3(2).

Alexakos, Konstantinos. 2015. *Being a Teacher| Researcher: A Primer on Doing Authentic Inquiry Research on Teaching and Learning*. Springer.

Angkoro, R, and A Kosasi. 2007. "*Otimalisasi Media Pembelajaran*, Jakarta." PT. Grafindo.

Baumann, James F, Donna Ware, and Elizabeth Carr Edwards. 2007. "'Bumping into Spicy, Tasty Words That Catch Your Tongue': A Formative Experiment on Vocabulary Instruction." *The Reading Teacher* 61(2): 108–22.

Blachowicz, Camille L Z, Peter J L Fisher, Donna Ogle, and SUSAN Watts-Taffe. 2006. "Vocabulary: Questions from the Classroom." *Reading Research Quarterly* 41(4): 524–39.

Brabham, Edna Green, and Susan Kidd Villaume. 2001. "Building Walls of Words." *The Reading Teacher* 54(7): 700.

Ferdila, Raihani. 2014. "The Use of Extensive Reading in Teaching Reading." *Journal of English and Education* 2(2): 68–80.

Fisher, Douglas, W G Brozo, N Frey, and G Ivey. 50AD. "*Content Area Strategies for Adolescent Literacy*." Upper Saddle River, NJ: Merrill Prentice Hall.

Knapp, Peter, and Megan Watkins. 2005. *Genre, Text, Grammar: Technologies for Teaching and Assessing Writing*. unsw Press.

Latulipe, Celine. 2021. "A CS1 Team-Based Learning Space in Gather. Town." In *Proceedings of the 52nd ACM Technical Symposium on Computer Science Education*, , 1245.

Linse, Caroline, and David Nunan. 2005. "*Practical English Language Teaching*." New York: 24.

Rycik, Mary. 2002. "How Primary Teachers Are Using Word Walls to Teach Literacy Strategies." *Ohio Reading Teacher* 35(2): 13.

Segretto, Michael. 2002. Roadmap to 8th Grade Reading. *The Princeton Review*.

Sudjana, Nana. 2005. "*Penilaian Hasil Proses Belajar*." Bandung: PT Remaja Rosdakarya.

Tarchi, Christian. 2015. "Fostering Reading Comprehension of Expository Texts through the Activation of Readers' Prior Knowledge and Inference-Making Skills." *International Journal of Educational Research* 72: 80–88.