

TECHNOLOGY-ASSISTED PROBLEM-BASED LEARNING IN READING CLASS: EXPLORING EFL LEARNERS' VOICES

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Abstract

The problem in reading comprehension for students is a process to require a variety of reading talents to understand reading passages that contain complex language or grammar. Word wall applications are a type of digital media that can help with problem-based learning models that are student-centered. This study seeks to elicit secondary students' engagements on reading skill through the use of technology, specifically a word wall application assisted with a problem-based learning model. To achieve its objectives, a qualitative case study was used in this investigation. Secondary students were recruited as research volunteers. In the learning reading, observation sheets and detailed interviews were employed as instruments. Data were gathered through observation and interviews. The documents were analyzed using descriptive qualitative analysis. The results of the study students' engagement were issue development (25%), student study arrangement (13%), independent research and group study assistance (38%), discussion outcome strengthening and presentation (13%), and assessing and grading the approach utilized to handle the issue (13%). The second finding found that both models and media can engage the students' cause of WW is interesting media, rarely used by the teacher, easy to understand, helping in learning English, funny, and modern. Moreover, for BPL model can enhance learning motivation, showing ability in problem-solving, learning collaboratively with the group, sharing their thought, and more confident. It also shows that students are interested in learning reading using that model and media. The findings indicate that word wall-assisted problem-based learning in the reading class resulted in good impressions of EFL learners.

Keywords: *Technology, PBL, reading, EFL, engagements*

1 INTRODUCTION

Reading is an important skill to master before learning other skills. By reading, the students can get more, such as new knowledge and important information. The process of constructing meaning involves the reader making connections between data from the written text and background knowledge that make it the students easy to get knowledge from the text that was read [1]. Interpretation can be done by reading printed text or digital script. In addition, reading is the process by which we get information from what we see, like books, magazines, newsprint, etc. There are several reasons why students read literature, from learning new information to enjoying themselves; It helps EFL learners advance their language skills and familiarize themselves with the subjects of their degrees [2].

There are many reasons why reading is crucial. Reading benefits students' vocabulary, spelling, and writing abilities. For their careers, many students desire to be able to read books in English, and just for fun [3]. Reading is also helpful for learning a language and provides good models for English writing. However, the students were still having trouble picking up reading. The process of reading comprehension is difficult and necessitates a variety of reading abilities (cognitive and stored memory), [4]. Additionally, they usually have trouble understanding reading passages that contain complex vocabulary or have poor grammar [5],[6].

The teaching-learning process using traditional lectures makes the students bored and not interested in learning because the focus is teacher-centered. While students learn the most in a short amount of time, teachers play a key role in traditional teaching methods [7]. In addition, students' conceptual knowledge and critical thinking abilities are not growing as they should. Nowadays, the teacher must bring a different teaching-learning model to make the student effective in learning that the learning model is student-centered. PBL is a teaching strategy that encourages students to use their contented understanding, precarious thoughtful skills, and problem-solving abilities to address real-world difficulties. As a result, PBL instruction is student-centered [8]. PBL focuses on developing learners' belief in being able to address issues [9]. In a PBL model, the student should solve the problem, which can be done through a group study. Learning in groups fosters the development of several desirable qualities, including effective communication, teamwork, problem-solving, independent learning responsibilities, information sharing, and respect for others [10]. The PBL model emphasizes students' communication skills through a discussion process [11].

Utilizing digital tools for learning where both educators and students make personalized interactive timelines, education should change to keep up with technology advancements [12]. Today, in learning, students can learn from many resources and a variety of media. Therefore, variations in the process require learning using media-based learning in the form of educational games [13]. Teaching-learning activities must be meaningful and interesting to the students. Meaningful learning is obtained from a variety of fun and challenging activities [14]. The word wall media plays a central role in concept preservation by students in contemporary instructional methods [15]. This approach involves teachers and students in an effective teaching-learning trajectory by instructing the learners on the selection of challenging and commonly used terms and meanings for visible display on the classroom walls [7]. Today is the globalization era, and technology supports our activities. The internet has made online learning possible, and many educators are using online learning to improve student learning outcomes while covering some resource limitations and increasing the demand for online learning from students [16]. So, the use of problem-based learning through word wall application in teaching reading become one of the good ways to improve students' abilities. A learning method Problem-based learning is to treat the students, while a word wall is a media to enhance students' understanding of materials. The purpose uses that modern media combined with interesting media is to help deliver the materials to students.

The usage of the media and teaching-learning through problem-based learning (PBL) are currently the subject of some study. One of them examined the views of EFL students regarding the use of Wordwall.net as a vocabulary study tool, it was undertaken by a researcher [17],[18]. Additionally, according to this survey, students had positive opinions about utilizing Wordwall.net to help them learn new words. It implied that using Wordwall.net to aid in students' vocabulary development resulted in a variety of positive outcomes that students experienced and increased. In a study by [19] on studying the effects of problem-based learning in the English writing subject: students perceptions, came to the study's findings, students had good perceptions of the use of problem-solving writing instruction, as evidenced by the replies' overall mean score of 83.74, which was classified as a positive perception.

It has been acknowledged that the problem-based learning model and word wall media are widely used at different levels of education based on the review of the prior study about the application of the model of problem-based learning and the use of word wall media utilized in the learning process. Interactive word walls can help students enhance their language-related and social abilities by being used not just for vocabulary but also while teaching a foreign language at all levels [20]. Numerous academic disciplines, including the discipline of language instruction, have explored the use of word walls and the problem-based learning approach [17], [11], [21], [22],[23]. It has also been specifically researched how PBL may be applied to reading instruction and how word wall media can be used to educate English language proficiency. However, there is a dearth of studies on how students' perception the use of word wall media in problem-based learning approaches for teaching reading.

According to the previous description, students' perceptions of a problem-based learning model through word wall media for teaching reading, which has reportedly proven to be successful in the

learning context, have never been applied to the educational process of reading skills in English. Therefore, research on how students view the application of the problem-solving in learning approach through word wall application in the teaching-learning of reading is still rare. The purpose of the current study is to learn how students feel about the use of a problem-based learning approach methodology in the context of instruction reading using word walls. The study can help the instructor in the learning-teaching process, particularly with the development of reading abilities, by using teaching-learning models with learning media. The student's interest in the learning process must be known by the teacher. There some study that present about the students' view of using PBL model through word wall application, but the study of students' specific engagement in using those model and media are still limited. Therefore, the teacher can increase the interest and focus of the students while they are studying English, the following inquiries will receive responses:

1. How is the student's engagement with the application of problem-solving techniques learning model through word wall media in reading instruction?
2. What makes the students engage in the use of the problem-based learning model through media word wall in teaching reading?

2 METHODOLOGY

The goal of this investigation is to examine how students view the usage of a problem-based learning approach in the framework of teaching reading through the use of word walls. To attain its goals, this study use qualitative case study. By participating in inductive inquiry of as-yet-undiscovered occurrences, case studies are widely utilized to build theories [24]. The study's respondents were ninth graders, and the researcher used an observation and interview to collect data. As a result, the class employed a word wall program to teach reading using a problem-based learning methodology. And during the school year 2022–2023, the researchers conducted this study.

Face to face interview after followed the teaching-learning in the class and observation, are used by the researcher to get the data. The researcher is both the data gatherer and the data analyzer for this study. The researcher's observations serve as the first data collection tool. The researcher is a participant in this observation. This was done while simultaneously acting in the roles of both an observer and a member of the group being observed. Those [19], [25] were modified to create the observation guides. The researcher utilized the instrument interview to discover more about the students' perspectives on problem-based learning and word walls for teaching reading. The researcher employs some activities for students' engagement while teaching-learning using the PBL model and word wall application.

In teaching-learning reading, the teacher and students held an offline class. As a teaching-learning strategy, problem-based learning (PBL) as a model and word wall applications as a media. Teaching and learning using both models and media in one week for twice-weekly meetings. Data collection with observation and interviews conducted through offline tools. Observations done in the class during the teaching-learning process occur [26]. The observation guidance is about the students' activities based on the syntax of the PBL model. There were five steps: (1) Developing the issues, (2) Arranging students' to study, (3) Assisting the independent research and group study, (4) Strengthening and presenting the discussion's outcome, and (5) Examining and rating the method used to resolve the issue [27]. There were one-to-five score categories, like 5: very well done. 4: well done. 3: quite well. 2: not well done. 1: poorly done [28]. After that, eight students conducted interviews as part of the data collection. Each interview lasts ten minutes with the student.

In addition to semi-structured interviews and observation, this study used numerous data sources. Observation sheets were analyzed to find out how the students engage in the model and the media. The observation data was then discovered during the reading class. Here, the observation was chosen; at this point, the researchers must dissect what has been designated as the focus to produce more detailed data. Then, the discussions were recorded, transcribed, and classified according to the themes to display the data and the outcomes of the interviews. Interviews are conducted after the teaching and learning processes have been completed. After observation and interviews to find the data, the researcher selected and reduced the data that was not relevant to the theme before. The final step involves analyzing the data using qualitative and descriptive analysis.

3 FINDING AND DISCUSSION

The results of the class observations regarding the use of technology-assisted problem-based learning in reading lessons are summarized in table 1 below. According to the observational findings, students' interest in problem-based learning and the use of word walls in their reading can accomplish all PBL syntaxes.

Table 1. Summary of PBL syntaxes statements

PBL syntaxes	Engagement subtypes	Statements	1	2	3	4	5	%
Developing the issues,	Behavioral	- students can answer the questions - Students ask about the material				√		25%
Arranging students' study,	Psychological	- the students work together with their group				√		13%
Assisting the independent research and group study,	Psychological	- the students do the exercises with their group - the students do the exercises with their group - the students discuss to find the answer				√		38%
Strengthening and presenting the discussion's outcome,	Academic	- the students present their result in front of the class				√		13%
Examining and rating the method used to resolve the issue,	Behavioral	- other groups give comments				√		13%
Score			0	0	0	32		100%

This research result is presented by using subtypes of PBL syntaxes that each statement categorized into engagement subtypes. Table 1 shows the students' engagement during the teaching-learning process. There were five syntaxes and each syntax shows that there are no students doing the activities in 1 to 3 categories above. The range of the activities based on the observation is in 4 stage categories, where it means well done. Students are engaged in the phrases of reading class using both learning models and learning media.

Developing the issues that are presented by the students and they are able to respond to the questions (25%) are categorized as behavioral engagement, which means that the students must respond to the questions in order to develop their critical thinking [29], problem-solving abilities, and content knowledge in relation to problems and issues that they will encounter in the real world. After the teacher has provided some stimuli relating to the content, the pupils then ask questions about it because they are interested, as seen by their queries. The kids want to know more about the topic being covered in English class.

Arranging students to study (13%). Here, the students were divided into groups based on the texts they were interested in reading (there were roughly 4-5 students in each group), and they were asked to present their work while collaborating with their group. This shows that the students were using their psychology skills to work with their friends, and they were discussing how to best use information from various sources, including books, literature, and the internet, to choose the necessary information[30].

Assisting the independent research and group study it is categorized in psychological engagement (38%). To uncover the questions and answers linked to the exercises with their group, the students discussed various examples with the team and incorporated the pertinent information that they had

previously discovered about the point of knowing that they were understanding. The students have the chance to work together to fix the issue at this point [31].

Strengthening and presenting the discussion's outcome (13%). This section is part of the academic engagement. Following self-study, group discussion, and a search for information or solutions in pertinent sources, each group then creates a report and presents its work to the class [32]. Other groups pay attention to them and provide feedback and comments.

Examining and rating the method used to resolve the issue (13%), this is categorized into behavioral engagement that after all the class activities above. After completing the aforementioned class activities, each group is expected to remark on or debate with the other groups. Finally, the instructor should review [33], evaluate, and summarize the entire teaching material in order to improve the students' abilities. In order to foster a sense of shared honor among the members of each group and further encourage their willingness to learn, the teacher should assess the learning activities of each group and commend the group that has completed the study better.

The second goal is to determine what motivates students to participate in problem-based learning activities using word walls in reading, as shown in table 2.

Table 2. Interview categories

Perspective	Media/model	Selected categories	Frequency
What makes the student engage?	Word wall	Interesting media	4 (14%)
		Rarely used	1 (4%)
		Easy to understand	3 (11%)
		Helping in learning English	4 (14%)
		Funny and modern	3 (11%)
	PBL model	Enhancing learning motivation	4 (14%)
		Showing ability in problem-solving	2 (7%)
		Learning collaboratively with the group	4 (14%)
		Share their thoughts	1 (4%)
		More confident	2 (7%)
			28 (100)

Table 2 shows that word wall media that engage the students are interesting media, rarely used by the teacher, easy to understand, helpful in learning English, and funny learning media [34] as the things that make the students engage with the teaching and learning process. The employment of those media to learn English generated a joyful and enjoyable environment that is simple to recall. Therefore, media is required to help students enjoy learning in order to achieve their learning pleasure.

The participants in these interviews also discuss how they interacted with the PBL model while reading. Most of the students expressed that the use of PBL enhanced learning motivation by showing ability in problem-solving, working collaboratively with their friends in each group, sharing their thoughts, and becoming more confident [35],[36]. A teaching-learning approach is crucial to making learning simple for students. Teachers and facilitators should have a mutual understanding of the English curriculum and instructional strategies.

4 CONCLUSIONS

The finding of this study outlines that the use of PBL and media word wall in reading class can create the learners engage with the teaching-learning process. It also shows the students' interest in learning reading in some classifications using that model and media. The result designates that teaching-learning using PBL and word wall media have a significant effect on their performance. Consequently, this result of the study suggests that the PBL model and word wall media in teaching learning reading to the English teacher.

Stating to the result obtained the student can engage with behavior, psychology, and academics which shows the student's opinion that is interesting media, helps in learning English, is easy to understand, funny and modern, and rarely used. English teachers need to be aware of the model and media so

that learning English can be more interesting for the students. Later, studies need to be conducted by allowing larger sample and deeper investigation.

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