

The Effect of Web-Based Language Learning Activities on Reading Comprehension in the EFL Classroom

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ABSTRACT

This article presents the findings of a Web-Based Language Learning (WBLL) design which is established as a website as supplementary materials to offer instruction for English as a foreign language (EFL) and investigated it over undergraduates in the EFL context. The website contains task-based web activities which insist students use the Internet to achieve specific goals. This article employed a mixed-method where both qualitative and quantitative were used to answer the research questions. The results indicated that those who participated in the WBLL classroom and used the website had positive impressions of WBLL, demonstrated good comprehension, and expressed a desire to use more web activities both in and out of class.

Keywords: *Web-based language learning, reading comprehension, EFL classroom, extensive reading, online learning*

INTRODUCTION

English is necessary to compete in the globalization era, so the importance of an individual's English skills is inevitable. Due to the importance of using English, the Indonesian government has considered that English is the first foreign language that is used in Indonesia for developing science, technology, and culture and is used to build international cooperation (Sulistianingsih et al., 2020). English is taught from kindergarten until higher education level in Indonesia as a foreign language (EFL) to prepare the generation to access global information. It considers that the majority of scientific publications in the field of science and technology are published in English, with global advances in the field of science and technology.

Prior to the research, we did an initial observation on our students' language competency, especially in reading English text. Based on the observation and interview, most of the students struggled to get the gist of the text. They have problems with not

only the vocabulary but also on how to comprehend the text. This matter is crucial to be solved since EFL students have to be exposed to textbooks and academic journals written in English.

Grabe (2001) states that there are instances when reading is required in specific circumstances like in a more formal setting, for example, in an academic context as part of the learning process. Braguglia (2005) also believes that reading is crucial for academic performance and intellectual progress. However, statistics reveal that most students have little interest in reading. This is because reading skill is a complex process that students carry out in understanding their ideas, thoughts, and experiences as a whole and communicatively. Other factors of why reading is not favored by students are caused by several aspects such as (1) not understanding the message in a text, (2) understanding a text must also understand the language itself, and (3) reading is a thinking process and an interactive process. Students' reading skills require continuous practice. However, these exercises must be supported by learning activities that suit the needs of students.

The activities should not only be appropriate for the student's needs, but also interesting and favorable. Son (2008) defines WBLL or Web-Based Language Learning as a language learning that utilizes the Internet as a source of information, materials, applications, and tools. Language learning activities that use the Internet as their underpinning have become popular in the twenty-first century because the Internet, as a global network of computer networks, allows language teachers to design meaningful tasks and access a variety of resources for their students. Given the rapid pace of technology in the twenty-first century, where everything is web-based, the field of education must adapt. Technology now allows educators and students to integrate, combine, and interact with media in ways that were previously impossible (Ivers & Barron, 1998).

Because learning can be accessed at any time and from any location, web-based language learning allows for more interaction between teachers and students in terms of time and place, especially now, during the COVID-19 pandemic, when the government recommends online learning. The government's top priorities for the health of students and lecturers are working from home for teachers, staying at home, and staying safe. As a result, web-based or online learning is critical, especially during the pandemic.

Universitas Pancasakti Tegal, particularly those in charge of academics, responded

to the needs of students and lecturers for web-based learning by developing a web-based learning platform. This platform is named Elsakti and was firstly used in the odd semester of 2020/2021. Unfortunately, this platform is not successfully developed, so the university gives the teachers the right to choose any kind of online learning platform which suits the need of the courses. This matter does not discourage us to design our tasks using WBL. We try to design our tasks using free or low-cost platforms of Web-Based Language Learning especially for facilitating students' reading comprehension.

Previous research has been conducted to determine the efficacy of WBL (Sert & Li, 2019; Son, 2008; Zhao, 1996). They found that WBL is effective in assisting language teachers in integrating web resources into the classroom. They designed the web to fulfill their students' needs. In our study, we use free or low-cost platforms in designing our tasks in the language classroom. The platforms are also easy to use. In this case, we use Edmodo, Zoom, and YouTube in the teaching-learning process. Even though those platforms are free or low-cost, they provide services that we need in designing the tasks in the language classroom. So many activities that can be explored from WBL are available. Due to those reasons, we want to know the effect of WBL on reading comprehension. We also want to know the students' engagement during the WBL activities in the language classroom, in this case, in the EFL context.

LITERATURE REVIEW

Web-Based Language Learning

Web-Based Language Learning (WBL) is a term that has recently gained popularity in the field of language education. There has been an increase in the number of studies on the use of web-based tools in language classrooms. Language instructors can now broaden their teaching way beyond the physical confines of their language classroom supported by web-based technology (Lai & Gu, 2011). Blended learning, as an illustration, involves students participating in online activities outside of school in addition to attending traditional language classes in person. EFL students can practice their English skills without regard to time or space limitations because language learning has become popular. They have more opportunities to learn and practice the target language by participating in collaborative learning with their peers or creating projects.

Learning Model

The learning model is used to assist teachers in implementing the teaching materials that they must convey to students. Because of the existence of a learning model, teachers now have a variety of alternative ways to convey information to students. The learning model is a conceptual framework that includes systematic procedures and organizes student learning experiences in order to achieve specific learning goals (Wilson, 2013), and it serves as a guide for teachers. Thus, the learning model's purpose is to serve equal instruction for teaching designers and teachers in performing learning. The model chosen is heavily influenced by the nature of the material to be taught, as well as the objectives to be achieved in the teaching and the level of ability of the students.

Furthermore, teachers can assist their students to complete the stages (syntax) in each learning model. There are differences between the syntaxes which include the beginning and end of learning. As a result, to achieve the various learning objectives and learning environments that characterize today's schools, teachers must master and be able to apply a variety of teaching skills.

Reading

There has yet to be a complete and satisfying definition of reading. Reading means one thing to some people and another thing to others. However, among the many definitions of reading, the following common features are mentioned: "Reading is interacting with language encoded in print" (Heilman, 2001). This means that understanding should be the result of interacting with printed language. The ability to use headings is closely related to the ability to use oral language. Thus, reading is an active and ongoing process that is directly influenced by an individual's interactions with his surroundings.

Reading is the process by which readers obtain messages intended to be conveyed by the writer through the medium of words/written language (Putri et al., 2020). A process that requires the ability to see a group of words that make up a whole as well as the meaning of individual words at a glance. If this condition is not met, the expressed and implied message will not be captured or understood, and the reading process will be hampered. Then, it can be said that reading is a receptive activity in which the reader receives the author's ideas and information in his writing.

Reading, according to Yanguas & Lado (2012), is the comprehension of language through written images. Meanwhile, according to Mason et al. (2013), reading is the comprehension of writing. Reading is an interactive process in which readers bond with the author and exchange ideas through the text. Furthermore, reading can be defined as the interaction that occurs between lecturers, students, and the material that they read. Reading as a learning tool English is one of the four skills that students must master. While reading, students not only read a text but they must also understand, read at glance, and even filter the essence of what they have read. They are also expected to comprehend new vocabulary so that students can master reading skill in English even if their major is not English.

The primary purpose of reading is to seek information and comprehend what is being read (Sulistianingsih, 2018). Readers have many reasons for reading and among them are: 1) getting details or facts, 2) getting the main idea, 3) knowing the sequence or organizational structure of the stories, 4) concluding, and 5) grouping or clarifying 6) assessing or evaluating, and 7) contrasting and comparing. From some of the opinions of the experts above, it can be concluded that reading is an activity that is used to get information, ideas, and also entertainment. Besides, reading can also provide extensive knowledge for us. Therefore, reading is very important because it is an active and interactive activity. With his knowledge, the reader must be able to follow the author's way of thinking and with his critical style, he is challenged to be able to respond or even to find out the ideas put forward by the author.

METHOD

The purpose of this study was to find out the effect of WBLL activities in improving students' reading comprehension. The goal of experimental research was to determine whether or not there was a result of "something" imposed on the subject under study. In other words, experimental research sought to establish whether or not a causal relationship exists. The trick was to compare one or more experimental groups that were treated with one or more control groups that were not. The following were the stages of this research:

a) Preparation phase

During the preparation stage, informal observations and interviews were conducted with students and lecturers regarding students' reading abilities. The next

stage was to make a research proposal and instrument. After knowing the problems and research objectives, research methods and instruments were designed for data collection.

b) Treatment stage

At this stage, the researchers collected the data. Before the treatment was carried out, we conducted a pretest on the groups. This pretest was given to test the similarity of the sample. Then, the experimental group was given treatment in the form of WBLL activities, while the control group was not given the WBLL activities. Observations on students reading comprehension activities were also conducted. After all treatments in the experimental group were completed, the posttest was given to students to determine the students' reading comprehension progress.

c) Data processing stage

Data analysis and interpretation were carried out after all data were collected. In this process, the students' post-test results from the group were calculated and analyzed to determine the students' reading ability improvement. Furthermore, it becomes the basis for making the final assessment.

This research was conducted at the Extensive Reading course of Universitas Pancasakti Tegal. The population was students of the English Education Study Program and the sampling was carried out through random area sampling. Two variables were employed, namely: independent variable and dependent variable. The independent variable is the WBLL activities and the dependent variable is reading ability.

The validity and reliability of the instrument items were tested using SPSS (Statistical Package for Social Science) software. The validity test used was the internal validity test with SPSS software using the Pearson Product Moment Correlation test. Another factor that was needed in the preparation of data collection tool items was the problem of reliability. The instrument is declared reliable if the instrument is reliable enough and can be trusted to be used as a measuring tool and data collection. To calculate the reliability of the instrument, the Alpha Cronbach formula was used considering that it is more efficient and effective in making the form of instruments and the implementation of data retrieval that is not repetitive and following the type of questionnaire to be used in this study, that is a structured questionnaire that provides several alternative answers or a multilevel scale (rating scale). From the posttest given to

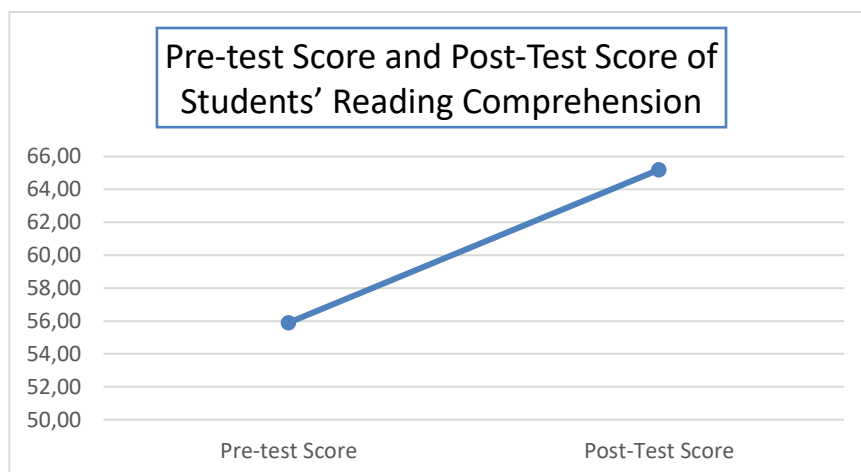
students, we found out the effect of using WBLL on students' reading comprehension through employing a two-difference test analysis or t-test. The results of the questionnaire were calculated using SPSS.

RESULTS

The research was carried out in one semester to investigate whether the hypothesis of the statement “WBLL gives a positive effect on student’s reading comprehension” was accepted or rejected. The research was started by collecting data about what should be done to improve students' reading skills considering that this ability is very important for students to have as the main key in their academic mastery. Low reading ability was not good for students in the retrieval of information for later processing in the brain in processing the information. This had an impact on errors in understanding what they read.

Before the lectures started, we had prepared materials as research tools. Among them were a WBLL model, syllabus, modules, materials, and reading comprehension test. The WBLL model which was originally going to use was Elsakti, an online-based learning platform developed by the Universitas Pancasakti Tegal. But then, it was changed by using the LMS platform which was already available for free by service providers on the website. The research team only made slight adjustments to the existing services to make them suitable for answering the questions in this study. The change from the LMS used was because Elsakti was not able to operate optimally when it was accessed by many users. The website-based learning model was finally modified using a combination of Edmodo, Zoom, Kahoot, and YouTube platforms. This research was applied in the Extensive Reading course for one semester and the results were as follows.

At the beginning of the study, our team tested the instrument used, namely 50 reading comprehension test questions which were tested in the try-out class. The 50 questions were tested for reliability and validity. And the results were reliable and valid. The reliability score obtained was 0.924 classified as perfect reliability because the number was above 0.9 ($r > 0.9$). There was an average increase in the initial and final test scores. Their initial average reading comprehension scores increased from 55.9 to 65.2. The results of the t-test showed a significant change from the implementation of the web-based learning model. Graphic 1. illustrated the students’ reading comprehension progress of students’ reading comprehension.



Graphic 1. Students' Reading Comprehension Achievement

The use of website-based applications such as Edmodo, Google Meet, YouTube, English Stories Audiobook, Booktrack, Goodreads, etc. provided significant changes to students' reading comprehension skills. Lecture contracts and syllabus were uploaded on Edmodo, so students could freely access them anytime and anywhere. The materials were given the day before the lecture so students had some time to study them first. Things that were still questions or had not been understood by students could be used as discussion material in virtual face-to-face meetings using Zoom or Google Meet.

Several applications were used as supports to provide variety so that students did not get bored, for example, the use of YouTube and Kahoot. Extensive reading materials, which means reading for pleasure were easy to find on YouTube like on the “Learning English through Story” channel. The Kahoot application was used as a supplement that provides useful entertainment for students because through this application, we provided interactive quizzes with fun music backgrounds to check their understanding of the material presented. Remedial quizzes were given to those who got scores below the minimum standard of 50. Quizzes were given at the end of the lecture session.

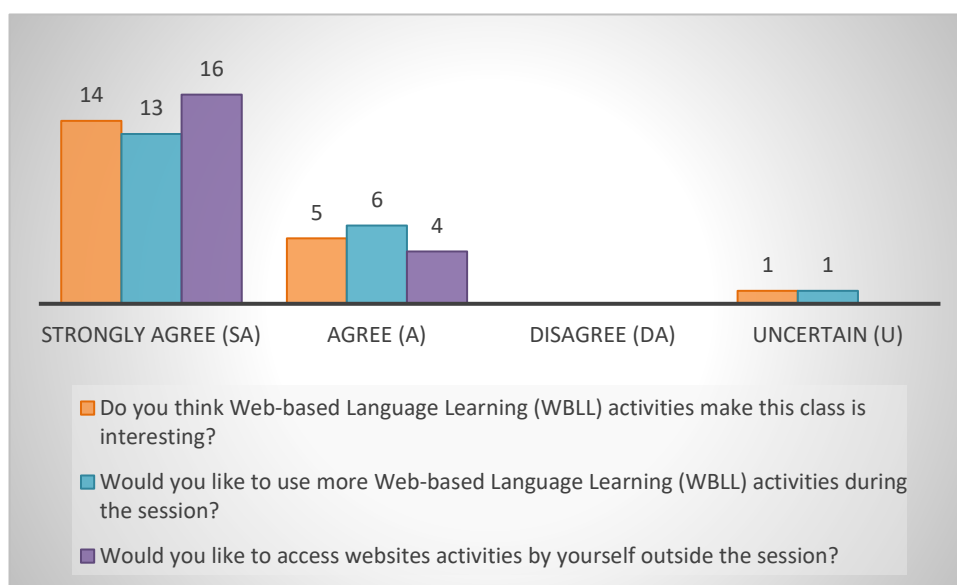
Things to do during the implementation of the WBL activities were storytelling. In the Extensive Reading class, the students were asked to read a book or novel that they could access via a website on the Internet. They chose their story, they were free to choose what to read. We gave guidance on how to make good storytelling or interesting narrative story and the activity followed by asking the students to submit their work via Google drive. When creating the story, we suggested our students access an online dictionary

such as Google Translate and Thesaurus. Even though this was an Extensive Reading class, we also taught them about grammar. This part was considered crucial so that our students could create an excellent narrative story. All the language learning activities were done using the website. The next WBLL activity was asking the students to give their best oral presentations. They could use realia, posters, pictures, or puppets to help them in giving oral storytelling via Google Meet. The students were also allowed to use music or song to liven up their storytelling.

During the implementation of the WBLL activity, students were also asked to complete a group project that was writing a book/film review. This task-based activity was done in groups. Students were free to choose their group members. We taught students how to write a book/film review before they wrote the review. The explanation was supported with a video on how to make a book/film review downloaded from YouTube, and the examples of some book or film reviews were also be given to students. We suggested some websites that the students could access i.e <http://www.bookpage.com/>, <http://www.worldlibraries.com/>, and <http://www.mrqe.com/>. We asked our students to list books or films that they already read or watched. Then, the book or film that they wanted to review was based on the group preference. After that, they were asked to find information about the book or film on the websites. This activity was followed by writing the book/film review in groups. Each member of the group should have a contribution to complete the task. Having completed writing the book or film review, the students should send their reviews to us via Edmodo. We had prepared the Edmodo as our LMS. The LMS had been set up so that the students could send their assignments or quizzes through this LMS. After sending their review, the students were asked to present their review orally through Google Meet in the next meeting.

A self-report questionnaire was distributed to the EFL students for gaining information about their opinion regarding the benefits of using WBLL activities. We distributed the questionnaire after eight sessions of Extensive Reading class (90 minutes per week for eight weeks) along with the websites. A total of 20 students ranging from 19-20 years old participated in completing the questionnaire. There were three questions given to the participants. The first question, "Do you think Web-based Language Learning (WBLL) activities make this class is interesting?", 14 students responded to

strongly agree and 5 students responded to agree to this statement, and 1 student responded to uncertain. The second question, “Would you like to use more Web-based Language Learning (WBLL) activities during the session?”, 13 students responded to strongly agree and 6 students responded to agree, and 1 student responded to uncertain. The last question, “Would you like to access websites activities by yourself outside the session?”, 16 students responded to strongly agree and 4 students responded to agree the detail was described in picture 1. In general, the EFL students gave positive attitudes towards Web-Based Language Learning (WBLL) activities.



Picture 1. Students’ Response on the Use of WBLL

DISCUSSION

This research had a limitation that the application of a website-based learning model in the teaching of extensive reading had a slight negative effect. This was found out from the results of questionnaires and interviews. Although most students felt happy being taught online, there was still a small number of students who were dissatisfied with online learning. The main reason was that the network in their home environment was not strong enough so they found it difficult to access learning. They had to move places in search of a strong signal. This had an impact on delays in collecting assignments and attendance in virtual face-to-face meetings. But, overall the findings showed that WBLL was helpful and practicable for language learning, especially in the EFL context.

The result of this research was that the WBLL activities were effective in improving students' reading comprehension. These findings were in line with the results of previous

findings that had been carried out by several experts (Enayati & Gilakjani, 2020; Sert & Li, 2019; Zhao, 1996). The thing to note here was that they made their program used in their research. In this case, we had not been able to create our program, but we only used applications that were already available for free on the website.

Limited funds and qualified human resources in the field of ICT were the main factors of the limitations of this research. Our team consisting of English lecturers had not been able to create our own LMS that could specifically be used to become a complete WBLL. The WBLL activities applied were still limited to the application of WBLL by integrating several applications that were already available for free on the website.

CONCLUSION

This study concludes that the application of the WBLL activities is effective in improving students' reading skills. Some limitations such as limited funds in building an LMS and qualified human resources in the field of ICT are expected to be a concern for the university to be able to provide solutions to this problem. It is hoped that the university improves the facilities of ICT to assist lecturers in applying discoveries in the field of education, especially in terms of technology integration.

REFERENCES

- Braguglia, K. H. (2005). Reading habits of business students. *Journal of College Teaching & Learning*, 2(3), 67–72.
- Enayati, F., & Gilakjani, A. P. (2020). The Impact of Computer Assisted Language Learning (CALL) on Improving Intermediate EFL Learners' Vocabulary Learning. *International Journal of Language Education*, 4(1), 96–112.
- Grabe, W. (2001). Reading-writing relations: Theoretical perspectives and instructional practices. *Linking Literacies: Perspectives on L2 Reading-Writing Connections*, 15–47.
- Heilman, A. W. (2001). *Principles and Practices of Teaching Reading*. Pearson Education White Plains, NY.
- Ivers, K. S., & Barron, A. E. (1998). *Multimedia projects in education: Designing, producing, and assessing*. Libraries Unlimited Englewood, CO.
- Lai, C., & Gu, M. (2011). Self-regulated out-of-class language learning with technology. *Computer Assisted Language Learning*, 24(4), 317–335.
- Mason, L. H., Davison, M. D., Hammer, C. S., Miller, C. A., & Glutting, J. J. (2013).

Knowledge, writing, and language outcomes for a reading comprehension and writing intervention. *Reading and Writing*, 26(7), 1133–1158.

- Putri, R. N., Taufiqulloh, T., & Sulistianingsih, E. (2020). The Effect of Probing – Prompting Technique on Reading Achievement. *Metathesis: Journal of English Language, Literature, and Teaching*, 4(1), 11. <https://doi.org/10.31002/metathesis.v4i1.1699>
- Sert, O., & Li, L. (2019). A qualitative study on CALL knowledge and materials design: Insights from pre-service EFL teachers. In *Computer-Assisted Language Learning: Concepts, Methodologies, Tools, and Applications* (pp. 2036–2051). IGI Global.
- Son, J.-B. (2008). Using web-based language learning activities in the ESL classroom. *International Journal of Pedagogies and Learning*, 4(4), 34–43.
- Sulistianingsih, E. (2018). Developing Students' Participation in a Mixed-levels Reading Class via Cooperative Integrated Reading and Composition (CIRC). *Vision: Journal for Language and Foreign Language Learning*, 7(1), 1–10.
- Sulistianingsih, E., Dwi Hartati, M., & Darihastining, S. (2020). Discovering Second Language Acquisition in Higher Education in Dealing with Industrial Revolution 4.0 Challenges. *Language Acquisition EJournal*, 4(1), 1–8. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3565768
- Wilson, L. O. (2013). Models of Teaching. An Overview: Exactly are What Teaching Models and Why are They so Important to The Quality of Instruction? *The Second Principle*, 3(4).
- Yanguas, I., & Lado, B. (2012). Is thinking aloud reactive when writing in the heritage language? *Foreign Language Annals*, 45(3), 380–399.
- Zhao, Y. (1996). Language Learning on the World Wide Web: Toward a framework of network based CALL. *Calico Journal*, 37–51.