

**CREATING E-LEARNING FOR ENGLISH VOCABULARY ENRICHMENT
FOR JUNIOR HIGH SCHOOL STUDENTS**

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*[Article info: received, 20 Desember 2024; revised, 31 May 2026;
accepted, 31 May 2026]*

Abstract

The limited enrichment of students' vocabulary was because of the use of traditional lecture methods in schools. This method often leads to low student enthusiasm and interest in English lessons, which in turn hinders vocabulary development. This research aims to develop an e-learning platform to improve students' English skills through vocabulary enrichment. Using the Design, Development, Research (DDR) model by Richey and Klein, data were collected through interviews, observations, and questionnaires. The findings showed a strong need from students that e-learning can be an alternative to digital learning, especially for vocabulary development. The researcher adjusted the design of the platform based on students' needs and feedback obtained during interviews. During the validation and implementation stages, the e-learning platform proved to be workable and useful as an additional learning medium. The final product of this research is a website-based digital learning platform that comprises two main components: materials and quizzes. The platform provides an effective solution to support vocabulary enrichment for students who have limited English vocabulary.

Keywords: e-learning, learning media, vocabulary enrichment

Abstrak

Terbatasnya pengayaan kosakata siswa karena penggunaan metode perkuliahan tradisional di sekolah. Metode ini sering menyebabkan rendahnya antusiasme dan minat siswa pada pelajaran bahasa Inggris, yang pada gilirannya menghambat pengembangan kosakata. Penelitian ini bertujuan untuk mengembangkan platform e-learning untuk meningkatkan kemampuan bahasa Inggris siswa melalui pengayaan kosakata. Dengan menggunakan model Design, Development, Research (DDR) oleh Richey dan Klein, data dikumpulkan melalui wawancara, observasi, dan kuesioner. Temuan tersebut menunjukkan kebutuhan yang kuat dari siswa bahwa e-learning dapat menjadi alternatif pembelajaran digital, terutama untuk pengembangan kosakata kosa kata. Peneliti menyesuaikan desain platform berdasarkan kebutuhan siswa dan umpan balik yang diperoleh selama wawancara. Selama tahap validasi dan implementasi, platform e-learning terbukti dapat diterapkan dan berguna sebagai media pembelajaran tambahan. Produk akhir dari penelitian ini adalah platform pembelajaran digital berbasis website yang terdiri dari dua komponen utama: materi dan kuis. Platform ini memberikan solusi efektif untuk mendukung pengayaan kosakata bagi siswa yang memiliki kosakata bahasa Inggris yang terbatas.

Kata kunci: e-learning, media pembelajaran, pengayaan kosakata

I. INTRODUCTION

Student vocabulary enrichment is one of the keys to success in learning a foreign language, including English (Ikhsan, et al. 2023). According to (Azis & Subhan, 2023), as cited in (Nation, 2015), vocabulary enrichment will help students improve four basic skills in English subjects: reading, writing, speaking, and listening. Moreover, creating technology-based learning media or e-learning can attract students to learn with innovations, especially for students who want to learn English.

E-learning is an innovation that can be utilized in the learning process, not only to deliver the learning materials but also to change the ability of various learner competencies (Hartanto, 2016). In addition, Kumar Basak et al. (2018) state that e-learning is an alternative medium to traditional education. Therefore, e-learning facilities can offer innovative learning opportunities for students. However, it is essential to note that there should be other supporting facilities, such as the Internet and electronic equipment used by students.

As students, they felt that learning English was tiring, and the language was difficult to understand. The lecturing method used in every English class did not align with the students' learning styles, so that the students' vocabulary enrichment needed to improve more. According to the students, using digital platforms in learning English was also an innovation learning.

Therefore, this research aimed to create an innovative digital-based learning facility as a supporting medium for modern web-based learning. This e-learning was expected to provide new learning innovations for schools. This e-learning had several supporting features to help students learn English and enrich their vocabulary according to the targets of the English subject. Therefore, this e-learning contained two features: materials and quizzes. The material featured learning videos, while the quiz included several questions that students had to complete. These features in e-learning made it easier for students to learn anywhere, as long as they were connected to the internet.

II. LITERATURE REVIEW

According to Meduri et al., (2022) website is a collection of pages that contain information in digital form. This information can be text, images, audio, video, and a combination of all of them. Websites can be accessed by people throughout the world as long as they have an internet connection. The development of communication and information science technology has a great influence on the teaching and learning process (Chusna, 2019). Therefore, websites can be used as an innovative learning medium in the digital era.

Also, Chusna (2019) stated that the focus of e-learning is that students are required to be independent at certain times and responsible for implementing their learning, and "force" students to play a more active role in their learning. Based on Hartanto (2016) Several things need to be considered in running a digital e-learning program where educators should use the internet and email to interact with students and measure their learning progress so that students are able to manage study time, and regulate the effectiveness of internet utilization in the multimedia room.

According to Kloskeey (2022), as cited in Saputra & Yolanda (2020) children develop through four specific stages:

1. Sensory-Motor Stage (from 0 to 2 years)
Children learn through physical interaction with the world around them.
2. In the pre-operational stage (from 2 to 7 years), children need concrete situations to process ideas.
3. Concrete Operational Stage (from 7 to 11 years) Children begin to conceptualize and do some abstract problem solving, though they still learn best by doing.
4. Formal Operational Stage (from 1-15) in which children can use abstract thinking.

Based on (Syafrizal & Haerudin, 2018) definition of English young learners are students who are studying in Elementary until Senior High School around 7-15 years old and studied

English as second language. According to (Masita, 2020), as a young learners may feel difficulties learning English because English is a foreign language and very different from their native language.

To minimize this, teachers should present the material differently so that Young Learners can enjoy the learning process and get the information as a whole (Masita, 2020).

III. METHOD

This study employed the Design and Development Research (DDR) approach proposed by Richey and Klein (2007). DDR was selected because the primary objective of this research was to design, develop, and evaluate an e-learning platform for English vocabulary enrichment among junior high school students.

The research was conducted at a junior high school involving seventh-grade students and an English teacher. The development process followed five stages: analysis, design, development, implementation, and evaluation.

Analysis

Based on the findings from the analysis stage, the researcher designed the structure and content of the e-learning platform. Learning materials were developed according to the English curriculum for seventh-grade students. The materials were presented in video format created from animated PowerPoint presentations accompanied by English voice-overs.

In addition, quiz activities were designed to reinforce vocabulary acquisition. Several question formats were included, such as multiple-choice questions, matching exercises, sentence translation tasks, and short descriptive writing activities. The website layout, navigation system, and learning features were also planned during this stage.

Design

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Development

During the development stage, all learning materials and quiz contents were integrated into a website-based e-learning platform. The researcher developed the website according to the previously designed specifications and ensured that all features functioned properly.

After the product was completed, expert validation was conducted to assess its quality. Three validators participated in the validation process: a content expert, an information technology (IT) expert, and a language expert. The validators evaluated the platform using assessment questionnaires and provided suggestions for improvement before implementation.

Implementation

The validated e-learning platform was implemented with seventh-grade students. Students were given access to the website and asked to explore the learning materials and complete the quizzes provided. After using the platform, they completed a questionnaire to evaluate its usability, attractiveness, content quality, and effectiveness in supporting vocabulary enrichment.

Evaluation

The evaluation stage was conducted to determine the overall quality and effectiveness of the developed product. Feedback from validators and students was analyzed to identify strengths and areas for improvement. Revisions were made based on the suggestions received, including adjustments to quiz instructions, question formats, and additional features to enhance vocabulary learning. The final version of the e-learning platform was then refined and prepared as an alternative digital learning medium for English vocabulary enrichment.

Data Collection Instruments

Three instruments were used in this study:

1. Observation Checklist – used to observe classroom conditions, students’ learning behavior, and available facilities.
2. Interview Guide – used to collect information from the English teacher regarding students’ learning difficulties and instructional needs.
3. Questionnaires – used during expert validation and student implementation stages to evaluate the quality, usability, and effectiveness of the e-learning platform.

Data Analysis

The data obtained from interviews and observations were analyzed qualitatively to identify students’ needs and guide the development process. Questionnaire data from validators and students were analyzed quantitatively using descriptive statistics. The scores were converted into percentages to determine the feasibility and effectiveness of the developed e-learning platform.

IV. FINDINGS AND DISCUSSION

Analysis

Based on the results of observations and interviews with English teachers regarding facilities and students conditions during English lessons, it was found that the school facilities were reasonably sufficient for use. Teachers had experience using digital learning websites on the internet, and the school also had a Wi-Fi connection that could be accessed by students.

To solve this, the school should start developing e-learning to provide easy-to-use learning facilities and help students learn from anywhere. Therefore, it will be easier for students to improve their vocabulary knowledge when learning English through innovative new learning media that they can access independently.

Design

There were two steps of the specifications design of the product. First step was created creative concept of the material and quiz contents. The material transformed into

PowerPoint presentations, with animations and images added to enhance student engagement. The PowerPoint was also supplemented with an English voice-over to explain the material then, converted the file into MP4.

The quiz content is divided into several models which was multiple choice, matching pair word, translating short sentences, and writing descriptive short paragraphs. But, for the descriptive short paragraph model is only on chapter five quiz. Last, developed a concept for the website pages, features, and determined the navigation buttons used on the web.

Development

In product development, questions and learning materials were created based on the English schoolbook. All questions were written with 20 questions in each chapter 4 and 5. After all were developed, the website was created in accordance with the design stage. Then, the website was prepared for expert validation to gather feedback and suggestions for further product improvement. See Table 1.

Table 1. Content Validator

No	Criteria	Respondent				
		1	2	3	4	5
1.	The website is easy to use					√
2.	The website is attractive				√	
3.	The website can help improve learning quality					√
4.	The website can be an alternative medium next semester					√
5.	Video learning materials are accurate and relevant with the curriculum					√
6.	Video learning materials are interesting					√
7.	Video learning materials can improve the student vocabulary enrichment					√
8.	Questions of quiz features are accurate and relevant with the curriculum					√
9.	Quiz features can help improve students vocabulary enrichment					√
10	The images listed on the material and quiz can help improve student vocabulary					√

So, 98% this e-learning were applicable, the contents were related with the target curriculum and this e-learning could be an alternative digital learning media especially media for improving students' vocabulary enrichment. However, researcher received some suggestions from content validators to evaluate the command sentences in the quiz feature according to the question models provided.

The result of the IT expert validation can be seen in Table 2.

Table 2. IT expert validation result

No	Criteria	Respondent				
		1	2	3	4	5
1.	The website can be accessed easily				√	
2.	The website is accessible by common browsers (google chrome, Mozilla Firefox, Explorer, etc)					√
3.	The website can be accessed using PC (laptop/computer) and smart phone					√
4.	The whole website is easy to operate (no issues or bug while switching to next page)				√	
5.	The navigation buttons are easy to operate				√	
6.	The navigation buttons on the website can motivate students to study				√	
7.	The navigation buttons on the website can be accessed easily				√	
8.	The 'log out' button can be operated easily without any problems				√	
9.	The website effective to be used as an alternative digital learning media				√	
10.	The quiz feature can be operated without any bug				√	
11.	The material menu can be accessed smoothly				√	

12.	The video learning material can be accessed without any bug					√
13.	The whole website design is unique					√
14.	The whole website design is interactive for students					√
15.	The color combination is contrast					√
16.	The whole information in the website is clear					√
17.	The font selection on the website is correct					√

So, it can be concluded that 82% of this product was effective and can be used as an alternative medium, and is easy to use for students, especially at the junior high school level.

The result of the language use validation can be seen in Table 3.

Table 3. Language use validation result

No	Criteria	Respondent				
		1	2	3	4	5
1.	The English word list has been corrected spelling					√
2.	The English word list has been corrected grammar and punctuation					√
3.	The translation into Indonesian is correct			√		
4.	The translation into English is correct				√	
5.	The choice of vocabulary in English is appropriate				√	
6.	The choice of examples in the material is appropriate					√
7.	The English sentences are easy to understand					√
8.	The English pronunciation in the video learning material is correct				√	
9.	The vocabulary matches with junior high school level				√	
10.	The spelling in Indonesian and English is appropriate					√

It can be concluded that 88% of the language in this e-learning is correct and in

accordance with the language used in junior high school learning. In addition, the researcher still received feedback from the language validator that the language in the whole content is in accordance for students.

Implementation

During the implementation stage, the researcher conducted field testing by distributing questionnaires to all seventh-grade bilingual classes. She received responses from 30 students after distributing the questionnaire. The respondent divided into 60% girls and 40% boys with the range age of them 12-14 years old. The result of assessment by students can be seen in Table 4.

Table 4. Result of assessment by Students

No	Criteria	Respondent					Average
		1	2	3	4	5	
1.	The website is easy to use			2	7	21	4.63
2.	The website design is attractive			1	14	15	4.46
3.	The website can increase enthusiasm for learning English, especially increase students' vocabulary enrichment			2	9	19	4.56
4.	The website can bring a more exciting learning atmosphere in the class				7	23	4.76
5.	Quiz features can help students to improve their vocabulary enrichment				13	17	4.56
6.	Video learning materials are in accordance with the curriculum				6	24	4.8
7.	Video learning materials are fun			1	9	20	4.6
8.	Video learning materials design are interesting			1	10	19	4.6
9.	Video learning materials will improve student vocabulary enrichment				9	21	4.7
10.	The content in the learning materials and the questions on the quiz are clear			1	10	19	4.6

11.	All the images provided in material and quiz relate to the curriculum				1	6	23	4.73
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The average of the statement from the results of the students' sheet is 4.6 out of 5 so this e-learning could help students increase vocabulary enrichment. The overall assessment of e-learning is 92 out of 100. This showed that this e-learning applies and is effective to be used as an alternative digital medium to help increase vocabulary enrichment.

Evaluation

In the evaluation stage, researchers described several evaluations while working on this research. Researchers received some suggestions from validator experts for evaluation. However, the researcher receives revisions to add a feature that could further support improving students' vocabulary mastery.

The researcher designed a list of questions and summarized the material. Then, the author got feedback from the English teacher to change some questions into more illustrated questions and dialogs.

The language expert validator gave a positive feedback that the material created by the researcher was appropriate for the junior high school level and in accordance with the author's goal of enriching students' vocabulary. Also, The IT expert suggested that the questions in the quiz feature be made randomly to prevent cheating by students

So, Researchers conducted this evaluation stage by combined all suggestions and feedback given by lecturers and all validators of expertise so that researchers can evaluate several aspects that support this research as a good study and optimally utilized.

CONCLUSION

This e-learning have been done by adapted Richey and Klein (2007). This researcher employed five stages used were analysis, design, development, implementation, and evaluation.

Data collection for the preliminary study was conducted through interviews with the English teacher by using interview guidelines

and conducting field notes observation at the school. This stage helped identify information regarding students' weaknesses in learning English, their vocabulary enrichment level, their conditions during learning in class, their preferred learning methods, and school facilities that needed to be considered in creating e-learning so that it would be in accordance with the objectives of the research.

In conclusion, researcher has created e-learning for English vocabulary enrichment for junior high school. This e-learning was in the form of a website that could be accessed through a web browser. Which included two features: quiz and materials aimed to enhancing students' vocabulary enrichment. The material feature has two chapter provided was in the form of video learning and the quiz feature has two quiz was related with the chapter provided. The question of the quiz has several questions model multiple choice, word or image pair, translate short sentences, and special additional question descriptive text. This e-learning was accessible via a web browser, allowing students to access it from anywhere and anytime as long as they were connected to the internet.

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