

Development Of Web-Based English Learning Media Using Content Management System (Word Press) And Elementor Plugin

Yuditra Farmana^{1*}, Muhammad Yasin²

^{1,2} English Lecturer of Management Study Program, STIE Enam Enam Kendari, Indonesia

*Corresponding Author:

Email: yuditra.farmana@gmail.com

Abstract.

This research was conducted based on the importance of English learning media that can be accessed by everyone anytime and anywhere, in this case not limited to the students of STIE Enam Enam Kendari but students from other tertiary institutions and even the general public. It is related to the Ministry of Education, Cultures, Research and Technology's program about Freedom to Learn (Merdeka Belajar Kampus Merdeka) which creates a flexible and innovative teaching-learning process. Therefore this research aims to design and develop website-based learning media using a content management system (CMS), namely WordPress and the elementor plugin for English courses at STIE Enam Enam Kendari. The stage of research method used is a "modified waterfall model" which consists of several stages described as follows: Requirement and analysis: the stage for collecting basic information by utilizing the interview method and literature study; System Designing; this stage is used to illustrate flowcharts and design web-based learning media and determine users/accessors; Implementation: the stage of installing a new system; Testing: the stage to ensure the system is running as needed; Deployment: the stage where the system that has been tested is implemented to the user; Maintenance: the stage used to meet the needs for system improvement after being distributed to users. Research findings showed that WordPress as a content management system and elementor plugin are effective tools to develop and design web-based English learning media. It meets the criteria of online learning media as well. The students can access the web-based English learning media to find information about the lessons or materials from the 1st to the 16th meeting in certain semesters. In addition, the users in this case the students' responses towards the web-based English learning media using WordPress and elementor were categorized as satisfied in all aspects (layout & design; speed web pages load; and learning materials) with the average number of percentage 87% (excellent).

Keywords: Development, Web-Based, Learning Media, WordPress, and Elementor.

I. INTRODUCTION

The industrial revolution 4.0 is the highest achievement in technological progress in information systems in the history of human civilization. The impact of this revolution affects every line of human life, including in the field of education. Thus, many education sectors use information technology to improve services and even the quality of learning for students. Information Technology can improve quality and extent if used wisely for training and education, and has a very important meaning for welfare [1]. English is an international language. It has taken the third rank as the language with the most native speakers in the world and the first rank with the most language users/speakers in the world according to Ethnologue [2]. In fact, not everyone in the world knows this language. In Indonesia, English is only considered a foreign language. Considering the importance of this language, many Indonesians try to learn it both formally through educational institutions and informally through English courses or online platforms. STIE Enam Enam Kendari is one of the colleges which makes English as a general subject and is only taught in the first and second semesters. Of course, lecturers especially English lecturers are expected to be able to carry out an effective and efficient teaching and learning process. This cannot be separated from the learning media designed and given to students. In today's digital era, English lecturers must be able to design instructional media that are effective, and flexible in the sense that they can be accessed anytime, anywhere and even by anyone easily, in this case not limited to students of STIE Enam Enam Kendari, but students from other tertiary institutions and even the general public. It is related to the objectives of the Freedom to Learn (Merdeka Belajar Kampus Merdeka) program which creates a flexible and innovative teaching and learning process.

However, the obstacle currently faced is that there are still many English lecturers who use conventional learning media, such as using textbooks, lecture methods, and copying or taking notes on learning material so that the teaching and learning process is limited by space and time. So, the teaching and

learning process only occurs during English class hours. Therefore innovation is needed so that the teaching and learning process can take place without the limitations of space and time. Based on the description above, the researcher intends to design learning media that can be accessed anytime and anywhere through the website using a content management system in the form of WordPress with supporting plugins in the form of elementor. In designing the website-based teaching materials, of course, researchers must have knowledge of designing English teaching materials and websites. This has been prepared and proven by the educational and training background attended by researchers and supported by the tools WordPress and elementor.

WordPress is an open-source content management system (CMS) software used to build, modify, and maintain websites. In technical terms, WordPress is written in PHP and runs on a MySQL or MariaDB database. In addition, WordPress features include plugins and themes, among others. WordPress is the most popular CMS on the market, powering 65.2% of websites whose CMS we know. That translates to 42.4% of all websites – nearly half of the internet. It is a popular option for those who want to build a website or blog. [3].

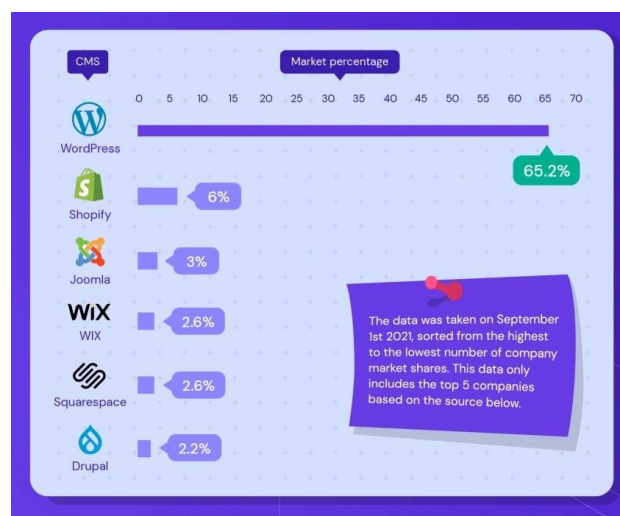


Fig 1. A graph on WordPress market share and its comparison with other website-building platforms, in which WordPress comes on top

While Elementor is the leading website-building platform for WordPress, enabling web creators to build professional, pixel-perfect websites with an intuitive visual builder. Quickly create amazing websites for your clients or your business with complete control over every piece, without writing a single line of code [4]. Research conducted by Panji Novantara 2017, implemented and measured the effectiveness of learning media through mobile learning using Android-based Synchronous and Asynchronous Learning methods for English courses for students at Kuningan University. The research target to be achieved was the existence of additional learning media that is interesting and easy to use so that it can increase students' interest and achievement in learning English courses [5]. Yusuf Sopyan Abdullah et al in 2019, designed and built a Knowledge Management System of English teaching materials to help teachers manage English materials and make it easier for students to gain knowledge of English material both tacit and explicit [6]. Wilda Susanti et al in 2020, designed a multimedia-based English e-learning application by combining concepts consisting of text, images, animation, and video for class X high school students using Moodle as a medium for learning English for beginners with the theme learning by doing. The application is expected to help improve the English learning process, especially in reading, memorizing and pronouncing vocabulary [7].

Research by Dentik Karyaningsih in 2020, improved students' Pronunciation abilities by changing the face-to-face learning system using Web-Based E-Learning Pronunciation learning media in the teaching and learning process. As we know pronunciation course is a practical course in the English pronunciation system, students who did not take part in the course at that time could not know the Pronunciation material at that time. Therefore, E-Learning Pronunciation is built so that lectures can be held anywhere and anytime without reducing the quality of the teaching and learning process so that students who are left behind can

continue to follow pronunciation course material, therefore students become familiar in the use of information and communication technology [8]. Surya Ali Imron's research in 2021, designed and built online learning media that could be accessed by students and teachers as long as they were connected to the internet network. The research development methodology used was the Waterfall Model, while data collection used interview techniques, observation, and literature study. E-learning was designed and built on a web basis using the PhpMyAdmin programming language and MySQL as the database. The result of the design and development of this application was a website-based E-learning that could facilitate students and teachers in learning English [9].

II. METHODS

This research used a modified waterfall model which consists of several stages described as follows:

1. **Requirement and Analysis:** the stage of collecting basic information by utilizing the interview method and literature study. At this stage, it was started by analyzing the needs of students and designing a lesson plan for the English course.
2. **System Designing:** this stage is used to illustrate flowcharts, design web-based learning media, and determine users/accessors. The researcher provided the hosting, tools (WordPress & elementor), and learning materials.
3. **Implementation:** the stage of installing a new system. When hosting has been provided, the researcher installed WordPress on Cpanel and then installed the elementor plugin on WordPress. When WordPress and elementor were installed completely, the researcher was ready to input the English materials on the post feature through the admin dashboard and then designed the page of web-based English learning media using the elementor plugin. The last step was linking the English material to the landing page.

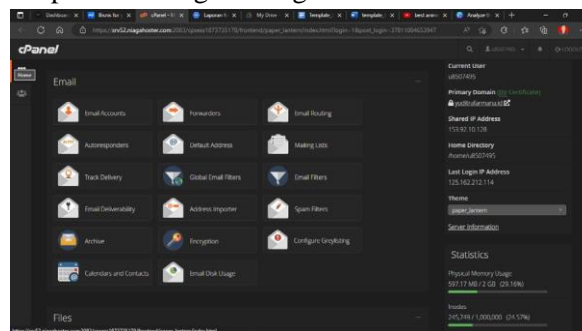


Fig 2. Cpanel Dashboard

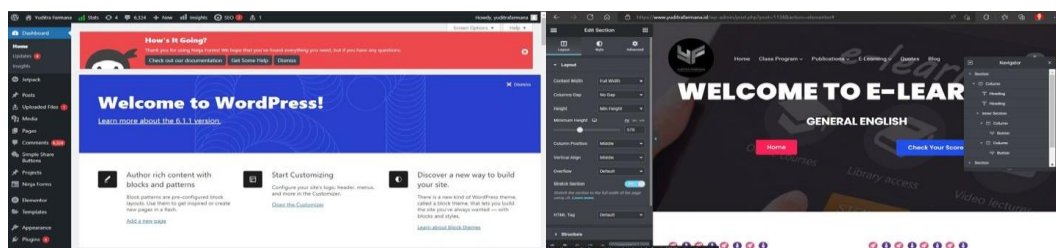


Fig 3. WordPress Dashboard

Fig 4. Elementor Dashboard

4. **Testing:** the stage to ensure the system is running as needed. At this stage, the researcher checked the links of every meeting one by one at www.yuditrafarmana.id/english66 in order to make sure it was directed over the right destined link.
5. **Deployment:** the stage where the system that has been tested is implemented to the user. The students visited the link and accessed all the English materials in the web.
6. **Maintenance:** the stage used to meet the needs for system improvement after being distributed to users. At this stage, the users have already visited and accessed the web-based English learning media. The researcher distributed the questionnaire to collect the users' responses toward the web-based English learning media.

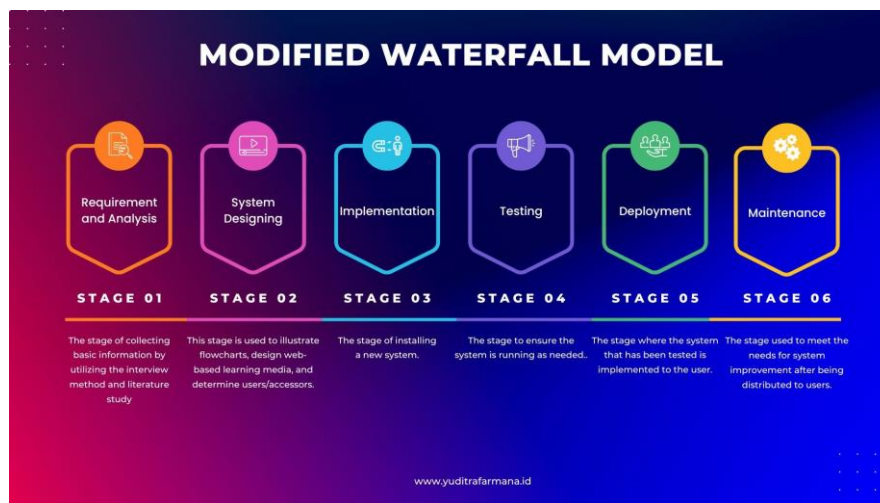


Fig 5. The Stages of Modified Waterfall Model

In "The Waterfall" approach, the whole process of software development is divided into separate phases [10]. The phases in the modified waterfall model cycle are allowed to be interrelated. This cycle makes the modified waterfall model more flexible in software and website development [11]. Modified waterfall model which involves validation or verification between the phases, so any deviations can be corrected immediately, providing the customer satisfaction that is best to use and mostly preferred by almost developers [12]. In collecting data on the users for the maintenance stage, the researcher used a *Likert scale* questionnaire that was distributed through Google Form. It covers several aspects such as layout & design; speed web pages load; and learning materials.

Questionnaire of Students' Response towards Web-based English Learning Media

yuditra.farmana@gmail.com (not shared) Switch account

* Required

Questionnaire of Students' Response towards Web-based English Learning Media Using WordPress & Elementor

Please fill the following items by answering:
 Very Satisfied: Sangat Puas
 Satisfied: Puas
 Neutral: Netral
 Dissatisfied: Tidak Puas
 Very Dissatisfied: Sangat Tidak Puas

1. Layout & Design. *
 1. Desain dan tata letak.

1 2 3 4 5

Strongly Disagree: Sangat Tidak Setuju ○ ○ ○ ○ ○ Strongly Agree: Sangat Setuju

2. Speed Web Pages Load. *
 2. Kecepatan Memuat Halaman Web.

1 2 3 4 5

Very Dissatisfied: Sangat Tidak Puas ○ ○ ○ ○ ○ Very Satisfied: Sangat Puas

3. Learning Materials. *
 3. Materi Pembelajaran.

1 2 3 4 5

Very Dissatisfied: Sangat Tidak Puas ○ ○ ○ ○ ○ Very Satisfied: Sangat Puas

Back Next Clear form

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Fig 6. Screenshot of Questionnaire (Students' response towards Web-Based English Learning Media)

III. RESULT AND DISCUSSION

This chapter presents research results regarding the web-based English learning media which was created using WordPress & Elementor and the students' responses after the deployment stage. The web-based English learning media can be accessed by visiting www.yuditrafarmana.id/english 66. It has been already developed, designed, deployed, and maintained adjusting the users' needs. This web-based English learning media can be accessed anytime and anywhere without using registration steps. It is free for anyone anytime

and anywhere.

Description about web-based English learning media using wordpress and elementor are presented as follows:

1. Homepage

Homepage of web-based English learning media using wordpress and elementor can be accessed at www.yuditrafarmana.id/english66. It covers the instructions of how to use and access the English learning media and the materials from the 1st to 16th meeting.

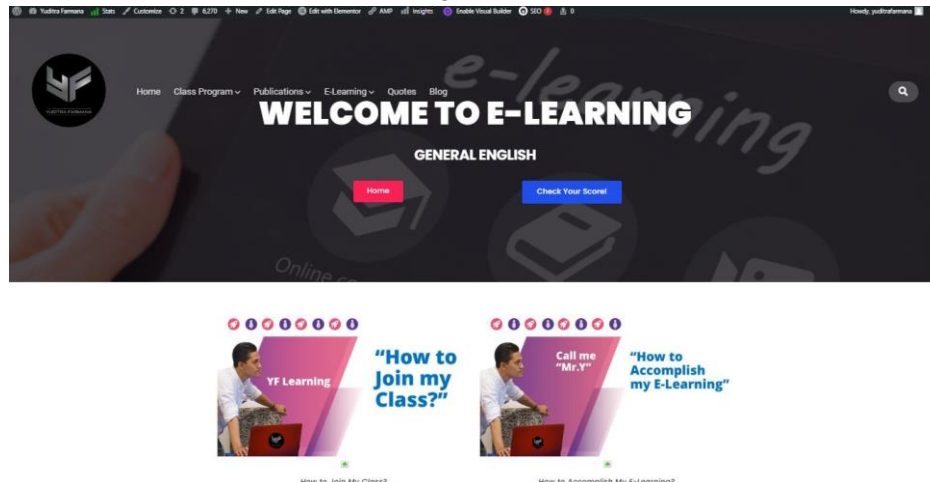


Fig 7. Homepage of Web-Based English Learning Media

2. Materials and articles post

The materials and articles that have been published can be accessed by clicking the pictures in each meeting on the homepage. It directly shows the specific material/article. E.g: the material in 1st meeting is Self Introduction, by clicking the 1st meeting directly brings the students to visit the material of self-introduction. The contents consist of text, images, and embedded videos from YouTube.

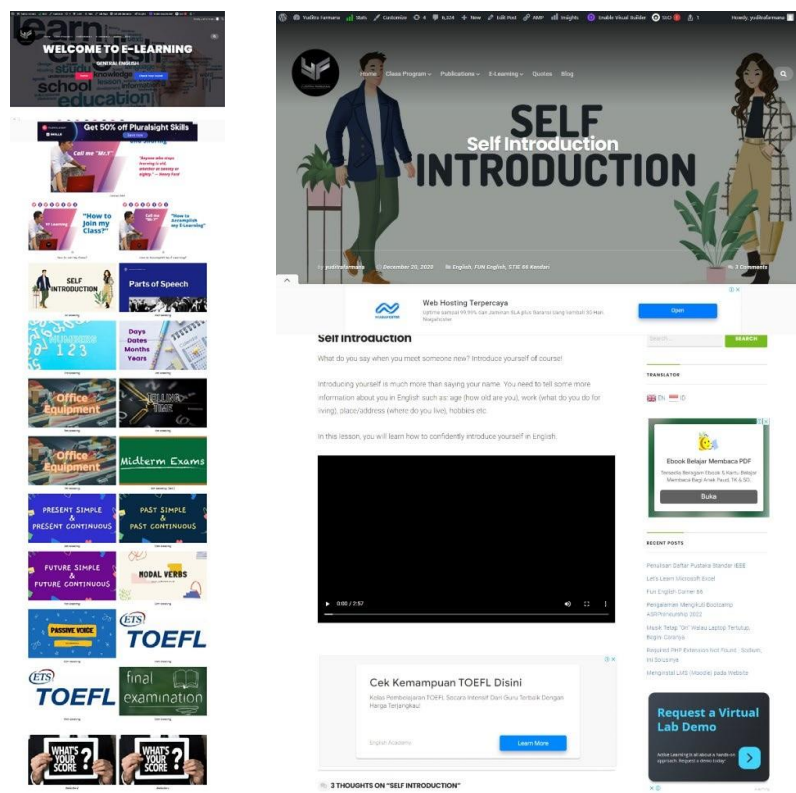


Fig 8. Screenshots of Materials and Articles

3. Score Checking Feature

The students are able to check their scores from the homepage of web-based English learning media by clicking the “Check Your Score!” button. It scrolls down to the scoring section.

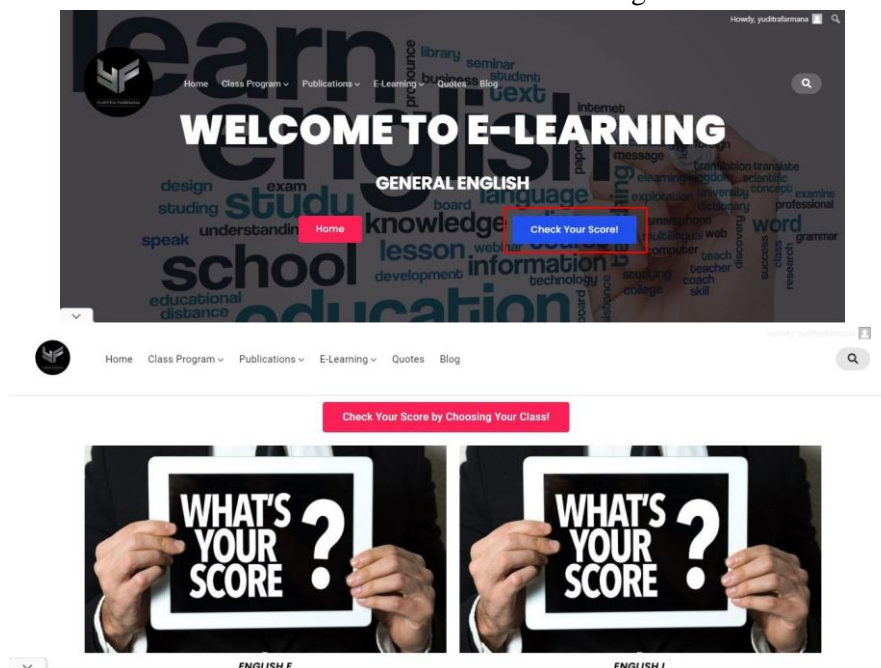


Fig 9. Screenshots of Score Checking Feature

The students’ responses towards web-based English learning media using WordPress and elementor are presented as follows:

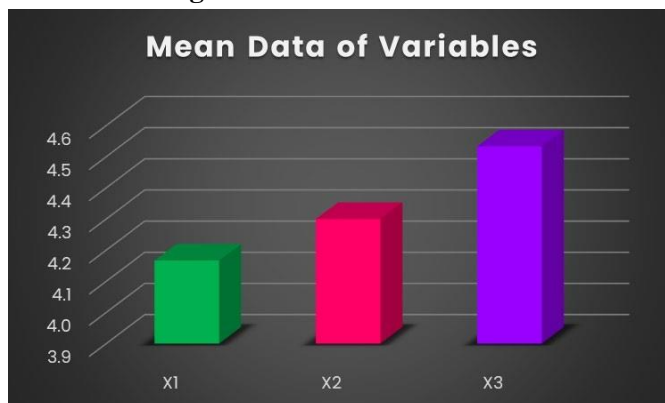
Students	Students' Response towards Web-Based English Learning Media				Students	Students' Response towards Web-Based English Learning Media			
	X1	X2	X3	Total		X1	X2	X3	Total
1	4	4	4	12	16	3	3	4	10
2	5	5	5	15	17	5	4	4	13
3	4	5	4	13	18	4	4	5	13
4	5	5	5	15	19	4	5	5	14
5	5	5	4	14	20	5	5	5	15
6	4	4	4	12	21	5	5	5	15
7	4	5	5	14	22	4	5	5	14
8	3	4	4	11	23	5	5	5	15
9	3	3	4	10	24	4	4	5	13
10	4	4	4	12	25	4	4	4	12
11	4	4	4	12	26	4	4	5	13
12	4	4	4	12	27	4	4	5	13
13	5	5	5	15	28	4	4	5	13
14	4	4	4	12	29	4	4	5	13
15	4	4	5	13	30	4	4	4	12

Table 1. Result Data Tabulation of Questionnaire

Table 2. Statistics

		Statistics		
		Layout & Design	Speed Web Pages Load	English Learning Materials
N	Valid	30	30	30
	Missing	0	0	0

Fig 1. Mean Data of Variables



X1: Layout & Design; X2: Speed Web Pages Load; X3: English Learning Materials

The graphic above indicates that the mean data for each statement reaches more than 4. It means overall the students’ responses are classified as satisfied with web-based English learning media using WordPress and elementor. The detailed findings and discussions about the students’ responses towards web-based English learning media are explained as follows:

1. The students’ responses toward the layout and design of web-based English learning media are explained as follows:

Table 3. Layout & Design Variable (X1)

		Layout & Design			Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Neutral	3	10.0	10.0	10.0
	Satisfied	19	63.3	63.3	73.3
	Very Satisfied	8	26.7	26.7	100.0
	Total	30	100.0	100.0	

Table 3 shows that the students seemed to satisfy with the layout and design of web-based English learning media (63.3%). Moreover, There are 26.7% of students verysatisfied.

2. The students’ responses toward speed web pages load of web-based English learning media are explained as follows:

Table 4. Speed Web Pages Load (X2)

		Speed Web Pages Load			Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Neutral	2	6.7	6.7	6.7
	Satisfied	17	56.7	56.7	63.3
	Very Satisfied	11	36.7	36.7	100.0
	Total	30	100.0	100.0	

Table 4 shows there are 56.7% of students seemed satisfied with the speed web pageload of web-based English learning media while 36.7% of students were categorized as very satisfied. However, the speed of web page load can be affected by the internet connection quality as well.

3. The students’ responses toward English learning material of web-based English learning media are explained as follows:

Table 5. English Learning Materials (X3)

		English Learning Materials			Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Satisfied	14	46.7	46.7	46.7
	Very Satisfied	16	53.3	53.3	100.0
	Total	30	100.0	100.0	

Table 5 shows there are 46.7% of students seemed satisfied with English learning materials of web-based English learning media, while 53.3% of students are very satisfied. It indicates that the English learning materials that have been published through web-based learning media are valid and suitable to the student's needs.

Table 6. Categories of Percentage Score

Percentage Score (%)	Category
81–100	Excellent
61–80	Good
41–60	Fair
21–40	Weak
0–20	Fail

Based on the results above the researcher concluded that the student's responses towards the web-based English learning media using WordPress and elementor were categorized as satisfied in all aspects (layout & design; speed web pages load; and learning materials) with the average number of percentage 87% (excellent) based on categories of percentage score used by Woon in 2019 [13].

IV. CONCLUSION

Based on the analysis results and the student's responses obtained, it can be concluded that the web-based English learning media using WordPress and elementor that has been developed is appropriate and suitable to be used in teaching and learning activities. The objective of this research is to develop a web-based English learning media using a content management system called WordPress and elementor plugin. The researchers used modified waterfall model during the development process. The teachers or lecturers can use web-based English learning media to create flexible learning activities. The students can access the web-based English learning media to find information about the lessons or materials anytime and anywhere without being limited by time and place.

It is related to the Ministry of Education, Cultures, Research and Technology's program about Freedom to Learn (Merdeka Belajar Kampus Merdeka) which creates a flexible and innovative teaching-learning process. Moreover, combining web-based English learning media with a blended learning method helped students to better understand the lesson. Students generally found it easier to remember information when it was presented audio-visual with an interesting design. Flexibility helped students to learn topics that were difficult to understand without being afraid of the time limits. Lecturers have to face the fact that educational technology might be soon present in language classrooms. Learning happens every day, but it is sometimes hard, particularly in the case of delayed gratification or accomplishment. However, educators are required to be more creative and innovative in running the learning process and designing their own learning media.

V. ACKNOWLEDGMENTS

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