

## DEVELOPMENT OF WORDWALL WEBSITE MEDIA FOR TEACHING VOCABULARY

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### *Abstract*

*The use of learning media will facilitate teachers and students in the English learning process. One of the learning media that can be used is Wordwall. This research aims to develop materials using learning media based on the Wordwall Website and analyze the development results related to its suitability for vocabulary teaching. The subjects of this study were students of grade 10-2 at Madrasah Aliyah Sirojut Tholibin. The research employed the Research and Development (R&D) method. The development model used in this research was ADDIE which consists of five steps: Analysis, Design, Development, Implementation, and Evaluation. In the development process, there was the involvement of instrument experts, product experts, and material experts before the media was tested on students. Each result provided by the expert was used as material for improvement. The validation results from instrument experts amounted to 80%, product experts 90%, and material experts 78%. It means that the learning media developed is "valid" to be tested on students as learning media. After the trial process, students gave responses with an average percentage of 84.3%. It means that the media is also "valid" to be used to help improve their vocabulary and learning motivation in English lessons.*

**Keywords:** *Development, Wordwall Website, learning media, vocabulary*

### INTRODUCTION

One of the subjects of study in the school is English. English is an essential language in the world since it serves as an international language. It has a big impact on the globe since it may be used to take and receive much information, especially in the education arena (Gumelar, 2018). Mastery of English is essential for increasing the competitiveness of all graduates. On this premise, English has become one of the mandatory subjects in Indonesia's educational curriculum. However, many students say that English is difficult because they don't understand English vocabulary. There are two aspects and factors that can cause students learning difficulties. The two aspects that can cause learning difficulties in English Vocabulary, namely: difficulty in pronunciation and meaning vocabulary (Ingratubun et al., 2024).

One of the schools located in Bacem Village, Sutojayan District, Blitar Regency, East Java Province, Indonesia is Madrasah Aliyah Sirojut Tholibin. Madrasah aliyah is a school with a formal secondary education level in Indonesia which is equivalent to high school. Based on the results of student needs analysis questionnaires, the researchers found the problem faced by students of 10-2 grade at Madrasah Aliyah Sirojut Tholibin. Based on the results of the needs analysis questionnaire of students in class 10-2 of Madrasah Aliyah Sirojut Tholibin, researchers found a problem in learning English, namely the lack of students' understanding of the meaning of

vocabulary used in learning materials. Mastery of English is essential for increasing the competitiveness of all graduates. On this premise, English has become one of the mandatory subjects in Indonesia's educational curriculum (Tobaharu, 2019). Teachers also rarely use learning media as a means to make students more interested and motivated to learn English even with the existing conditions. Indications that the insufficient standard of English for Young Learners (EYL) teachers keeps increasing due to the restricted information and abilities they obtain from their schooling has become a concern (Setyaningrum et al., 2020).

Various ways can be used to attract students' attention in the learning process, one of which is learning media. Learning media is defined as anything that serves as an intermediary or connector between the information source, primarily the instructor, and the information recipient, or students, to encourage students and enable them to fully and meaningfully participate in the educational process. Therefore, learning media can be a vehicle for delivering learning messages and information (Hasan et al., 2021). The accessibility of technology is a crucial factor in increasing educational quality. Technology continues to evolve, especially in this current era of globalization (Fitria et al., 2024). This condition requires teachers to have knowledge and skills in using various technological devices.

Wordwall is a technology-enabled learning tool. Wordwall website is a web-based learning media in which various kinds of games can be used by teachers to make the learning process more interesting by involving students in it. As a part of education games, Worldwall.net offers a variety of interactive games to train vocabulary (Igir et al., 2024). Some of the advantages of Wordwall are free for basic options with a choice of several templates. Furthermore, the games created can be distributed immediately via WhatsApp, Google Classroom, or other means. This software provides several of games, including crosswords, quizzes, random cards, and several more. Another benefit is that the developed games can be printed in PDF form, making it easier for students with difficulty with the network (Nissa & Renoningtyas, 2021).

From the problems expressed by students, they do not understand the meaning of vocabulary used in learning materials and less interested for learning English. Researchers want to offer solutions to teachers. So, they can help students when learning using the media offered. There are several previous studies that are also relevant to this research, which also inspired researchers to use Wordwall as a learning tool to boost students' vocabulary knowing and stimulate students to become more engaged in learning English. Research by (Kariyati & Kusumaningrum, 2021) which stated Teachers can use the media developed in the form of Wordwall media to boost vocabulary abilities. The focus of this research is on developing Mandarin vocabulary. Research (Pradini & Adnyayanti, 2022) claimed that Wordwall can improve students' vocabulary achievement and inspire them to study English.

However, this research used a quantitative study method. Apart from that, research (Evandri, 2024) stated Wordwall is a learning tool that is both amusing and effective in helping students reach their learning objectives. The research gap in this study lies in qualitative research approaches.

This research aims to develop material using learning media based on the Wordwall Website and analyze the results of the development regarding its suitability for teaching vocabulary for Class 10-2 at Madrasah Aliyah Sirojut Tholibin. That way, the researchers raised the title "Development of Wordwall Website media to Teach Vocabulary". Through this Wordwall, it is expected that students can better understand the material, have interest and motivation to stay enthusiastic about learning English, and improve English vocabulary memory through interesting games that will be presented.

## **METHODOLOGY**

This research aims to develop learning media based on the Wordwall Website and analyze the development results regarding its feasibility. For this reason, researchers chose to use research and development methods that are relevant to the objectives of this research. The (R&D) is a procedure or set of actions in research operations that may be tracked to create a new product or improve an existing one. These products may be hardware or software (Wagiran, 2013 in (Dalimunthe et al., 2021)). The development procedure used is the ADDIE model with five steps, namely: Analysis, Design, Development, Implementation, and Evaluation.

The subjects of this study were an English teacher and 20 students by 10-2 grade at Madrasah Aliyah Sirojut Tholibin. Students with a number of 20 people were selected using a purposive sampling technique. Purposive sampling is a non-random sampling method in which the researchers ensure the citation of examples by selecting a particular identity that is suitable for the research aims to respond to the research case (Lenaini, 2021).

Data collecting techniques included observation, interviews, and questionnaires. The data-collecting tools employed field notes, questionnaire sheets, and recordings. In this research, the resulting data comes in both qualitative and quantitative forms. Qualitative data was obtained from observation, interviews, and student needs analysis questionnaires. Meanwhile, quantitative data was obtained from expert validation questionnaires and student satisfaction questionnaires. The researchers used a questionnaire sheet as a data collection instrument which used a Likert scale. The Miles and Huberman approach is used to analyze qualitative data. Data analysis processes include data reduction, data display, and generating or verifying findings (Creswell & Creswell, 2018). To analyze quantitative data using a Likert scale, researchers need to explain the gradation of values from very positive to very negative, which can be in the form of words including:

*Table 1. Scale Range*

| No | Scale type        | Score |
|----|-------------------|-------|
| 1. | Strongly agree    | 5     |
| 2. | Agree             | 4     |
| 3. | Doubtful          | 3     |
| 4. | Disagree          | 2     |
| 5. | Strongly disagree | 1     |

According to (Suyono, 2021) the scale, the range is then analyzed to interpret. The formula and scale range are described as follows:

$$X = \frac{R}{N} \times 100\%$$

X = Percentage result

R = Total score obtained

N = Maximum score

The products developed will be validated by instrument experts, media experts, material experts, and student's responses. Next, the validity percentage obtained is then interpreted into validity categories based on the following table:

*Table 2. Validity category*

| Intervals (%) | Category     |
|---------------|--------------|
| 0% - 25%      | Invalid      |
| 25% - 50%     | Less valid   |
| 51% - 75%     | Fairly valid |
| 76% - 100%    | Valid        |

Adapted from Chasanah et al. (2022)

In conclusion, a product is said to be valid if it is at a percentage of 76% in the "valid" category. It has also been proven to be a product that can increase vocabulary and is accepted by students as fun learning media in English lessons.

## **FINDINGS**

The findings during development and results after using learning media based on the Wordwall Website will be explained by paying attention to the development procedures using the ADDIE model with five steps, namely: Analysis, Design, Development, Implementation, and Evaluation as follows:

### **1. Analysis Phase**

The analysis stage determining student needs, and creating learning goals and objectives (Mesra, 2023). Researchers planning analysis based on the curriculum so that it can be determined what abilities or competencies students are expected to achieve. Then conduct a subject analysis based on student needs. To carry out this needs analysis, researchers carried out observations during learning and distributed

questionnaires to 20 students in class 10-2 at Madrasah Aliyah Sirojut Tholibin. The information obtained at this stage can be used as material to formulate potential appropriate solution.

Considering the outcome of the teacher interview, the curriculum used by class 10-2 students is a *Merdeka* curriculum. Then the subjects focused on in this research are English lessons, especially in fractured stories material. Furthermore, based on the answers to the needs analysis questionnaire for class 10-2 students at Madrasah Aliyah Sirojut Tholibin, The problem faced by students are students did not understand the meaning of the vocabulary used in the learning material. Students are also less interested in learning English because teachers rarely use learning media to make students more interested and motivated to learn English despite the existing conditions.

Based on these problems, researchers can provide solutions for teachers and students such as adopting more interactive learning media. Therefore, the researchers took the decision to develop website-based learning media that is easy to use and interesting for learning. The website used by the researchers is Wordwall. This learning media focuses on increasing vocabulary and learning motivation for class 10-2 students at Madrasah Aliyah Sirojut Tholibin in English lessons.

## **2. Design phase**

The results of previous analysis activities are used as a basis for determining how learning media will be designed. The goal of the design phase is to verify the desired performance and appropriate test methods (Mesra, 2023). In developing this media, researchers used fractured stories material because this is the next material the teacher will teach. The material content of the Wordwall website learning media developed by researchers describes material based on students' needs for additional vocabulary. Then the learning process will be carried out as usual, starting from explaining the material and then continuing to play games.

Next, the selection of vocabulary that will be used in learning and developing this media is vocabulary related to text elements, verbs, and adjectives that are characteristic of fractured story texts. This aims to enable students to add new vocabulary that can be used to understand reading and writing their fractured story texts. Apart from that, the researchers also added pictures that correspond to the vocabulary in the learning media.

## **3. Development phase**

The development phase is the action of translating design specifications into physical form, resulting in a development product prototype (Fayrus & Slamet, 2022).

At this stage, researchers will develop media whose concept or design has been created in the design stage. Then the media that has been developed will be assessed for suitability by the validator.

a. Create media

The first step is to gather the ingredients. The materials collected are vocabulary and images related to the vocabulary. Researchers downloaded images via Google and collected them together in a laptop folder.



Figure 1. Folder Image Vocabulary

Next is selecting a game template. There are 18 templates provided for free by Wordwall. For development here, the researchers chose to use the open-the-box template. Researchers chose this template because it was considered to make students prepare while thinking about questions and possible answers that would appear on the screen. It is hoped that students will think critically and be active in group collaboration.

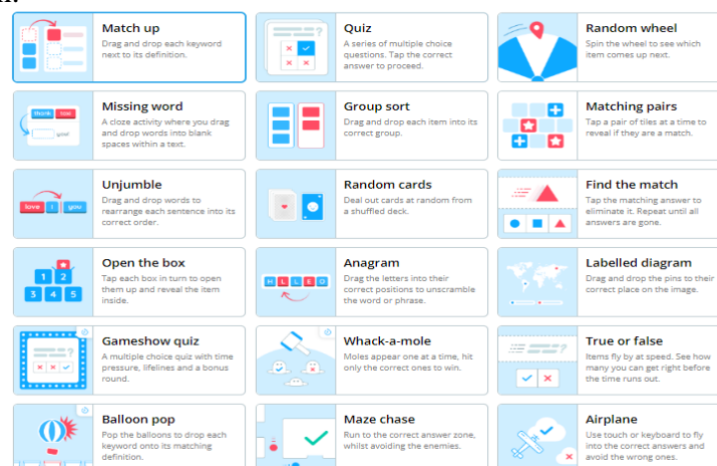


Figure 2. Wordwall Template

The next step, customize the activity by adding content, and picture, and adjusting other relevant options.

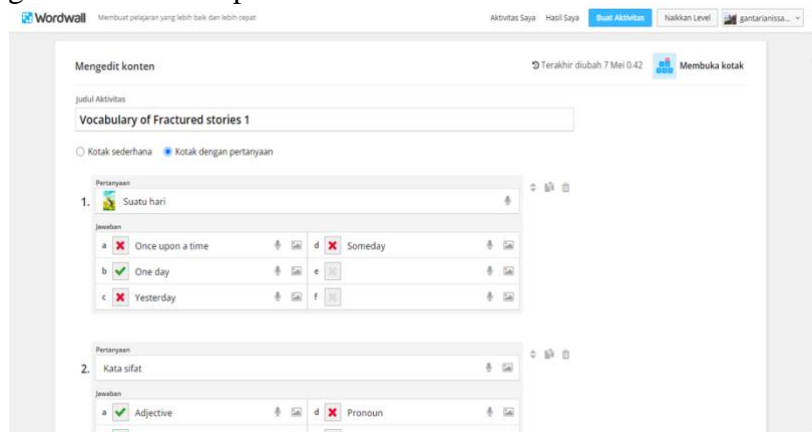


Figure 3. Adding Content

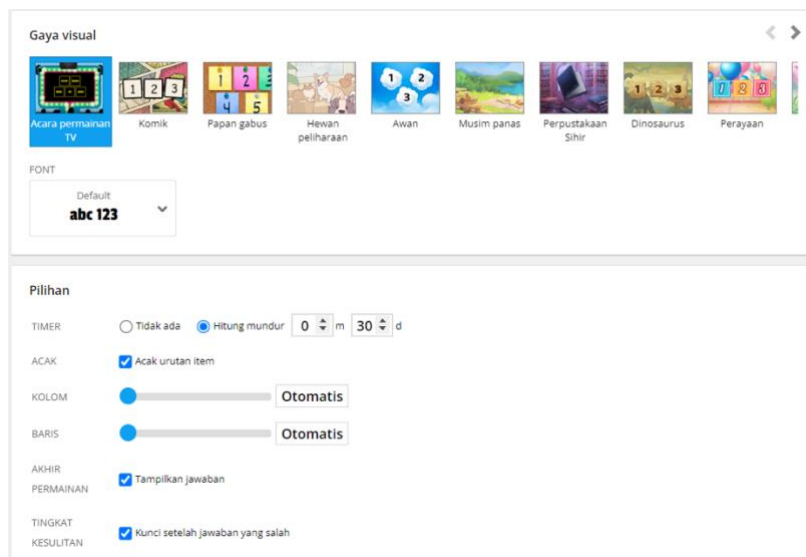


Figure 4. Customize Settings



Figure 5. Initial Game Display

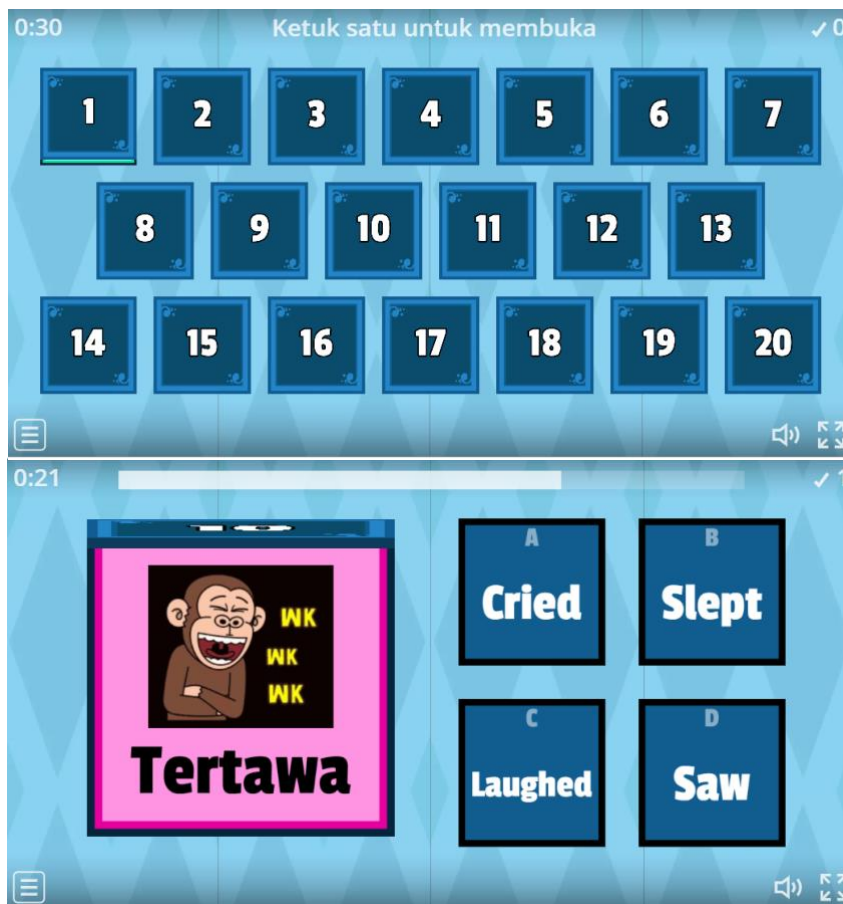


Figure 6. Wordwall Game Design

b. Validation

Validation in this research involves instrument validators, media validators and material validators. The following are the validation results from the validators:

Table 3. Instrument Expert Validation Results

| No           | Statement   | Score     |
|--------------|---|-----------|
| 1.           | Clarity of the title of the questionnaire sheet           | 4         |
| 2.           | Clarity of the Questionnaire Purpose                      | 4         |
| 3.           | Clarity of the questionnaire filling instructions         | 4         |
| 4.           | The clarity of the writing on the questionnaire sheet     | 3         |
| 5.           | Statements in accordance with the purpose of the research | 4         |
| 6.           | Statement revealing correct information                   | 4         |
| 7.           | Statements in accordance with the aspects to be achieved  | 4         |
| 8.           | The use of good and correct language                      | 4         |
| 9.           | The use of language that is easy to understand            | 4         |
| 10.          | Writing according to EYD                                  | 5         |
| <b>TOTAL</b> |   | <b>40</b> |



It can be seen that the final score shows the total score is 40. Then, it can be calculated using the formula as below:

$$\text{Score (\%)} = \frac{\text{Total score obtained}}{\text{Maximum score}} \times 100\%$$

$$\text{Score (\%)} = \frac{40}{50} \times 100\%$$

$$\text{Score (\%)} = 80\%$$

The validation results from instrument experts show a total score of 40 with a percentage of 80%. We might concluded that the instrument in this research is belongs to the "valid" category. Instrument expert validators also provide comments or suggestions for revisions with minor improvements to aspects of diction selection in indicators.

*Table 4. Media Expert Validation Results*

| No           | Statement   | Score     |
|--------------|---|-----------|
| 1.           | Attractive media appearance   | 5         |
| 2.           | The media uses the right type of letters  | 5         |
| 3.           | Availability of navigation buttons  | 5         |
| 4.           | Use of the appropriate animation  | 4         |
| 5.           | The images listed in the media are clear, interesting, and in accordance with the topic of the material | 4         |
| 6.           | Audio availability  | 4         |
| 7.           | Language and sentence accuracy  | 4         |
| 8.           | Interactive   | 4         |
| 9.           | Can increase vocabulary and student learning motivation   | 5         |
| 10.          | Simple media and easy to use  | 5         |
| <b>TOTAL</b> |   | <b>45</b> |

It can be seen that the final score shows the total score is 45. Then, it can be calculated using the formula as below:

$$\text{Score (\%)} = \frac{\text{Total score obtained}}{\text{Maximum score}} \times 100\%$$

$$\text{Score (\%)} = \frac{45}{50} \times 100\%$$

$$\text{Score (\%)} = 90\%$$

The validation results from instrument experts show a total score of 45 with a percentage of 80%. It can be concluded that the media in this research is in the "valid" category and appropriate for use without revision.

*Table 5. Material Expert Validation Results*

| No           | Statement   | Score     |
|--------------|---|-----------|
| 1.           | The material presented in accordance with the achievements and learning objectives of the class X fracture stories material | 4         |
| 2.           | The media contains variations of questions that provide stimulus to students in adding and remembering vocabulary           | 4         |
| 3.           | The scope of the material in the practice questions has represented each indicator in the learning achievement              | 3         |
| 4.           | The material in the media is arranged according to students' abilities  | 4         |
| 5.           | The image presented is clear and in accordance with the topic of the material   | 4         |
| 6.           | The sentence used is clear and easy to understand   | 4         |
| 7.           | Material can bring up student's curiosity   | 4         |
| 8.           | Presentation of material can increase student activity  | 4         |
| 9.           | The subject of the media is sufficient to be used as an alternative to learning resources                                   | 3         |
| 10.          | The material on the learning media developed can support the learning process   | 5         |
| <b>TOTAL</b> |   | <b>39</b> |

It can be seen that the final score shows the total score is 39. Then, it can be calculated using the formula as below:

$$\text{Score (\%)} = \frac{\text{Total score obtained}}{\text{Maximum score}} \times 100\%$$

$$\text{Score (\%)} = \frac{39}{50} \times 100\%$$

$$\text{Score (\%)} = 78\%$$

The validation results from instrument experts show a total score of 39 with a percentage of 78%. We might conclude that the material in this development media is in the "valid" category and appropriate for use without revision. With comments and suggestions, the material is quite interesting because it displays audio-visual media which influences students' curiosity and more vocabulary needs to be added.

#### **4. Implementation phase**

This implementation stage is carried out after all validators agree on the suitability of the media to be implemented with students. At this phase, the researchers act as a teacher who directs how to use Wordwall media. As well as observing student activity during the implementation process. At the beginning of the

lesson, the teacher will greet students, explain the lesson, play games, and students will be asked to fill out a student response questionnaire after using the product. The questionnaire given to students as follows:

*Table 6. Students' Response Questionnaire*

| No  | Statement   | Score |   |   |   |   |
|-----|---|-------|---|---|---|---|
|     |   | 1     | 2 | 3 | 4 | 5 |
| 1.  | Color combination and images make the media interesting         |       |   |   |   |   |
| 2.  | Writing in the media can be read clearly                        |       |   |   |   |   |
| 3.  | This media can be used easily                                   |       |   |   |   |   |
| 4.  | Questions listed in this media in accordance with the material  |       |   |   |   |   |
| 5.  | Media uses language that is simple and easy to understand       |       |   |   |   |   |
| 6.  | Media can make it easier for me to learn English                |       |   |   |   |   |
| 7.  | The media can help me understand the material more easily       |       |   |   |   |   |
| 8.  | I am motivated to learn English with this media                 |       |   |   |   |   |
| 9.  | Learning to use this media makes me not bored quickly           |       |   |   |   |   |
| 10. | This media can help me increase and increase English vocabulary |       |   |   |   |   |

*Table 7. Results of Students' Response Questionnaire*

| Respondent  | Statement item |   |   |   |   |   |   |   |   |    | Total |
|-------------|----------------|---|---|---|---|---|---|---|---|----|-------|
|             | 1              | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |       |
| S1          | 4              | 4 | 5 | 4 | 5 | 4 | 4 | 3 | 4 | 10 | 42    |
| S2          | 4              | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4  | 40    |
| S3          | 4              | 4 | 3 | 4 | 4 | 3 | 4 | 3 | 4 | 4  | 37    |
| S4          | 4              | 4 | 5 | 5 | 4 | 4 | 4 | 3 | 4 | 4  | 41    |
| S5          | 4              | 4 | 4 | 4 | 5 | 5 | 4 | 5 | 5 | 5  | 45    |
| S6          | 5              | 4 | 5 | 5 | 5 | 5 | 4 | 4 | 5 | 4  | 46    |
| S7          | 5              | 4 | 5 | 5 | 4 | 4 | 5 | 3 | 5 | 4  | 44    |
| S8          | 4              | 5 | 4 | 5 | 5 | 4 | 4 | 4 | 5 | 4  | 44    |
| S9          | 4              | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4  | 40    |
| S10         | 5              | 5 | 5 | 4 | 5 | 5 | 5 | 3 | 5 | 5  | 47    |
| S11         | 4              | 4 | 4 | 5 | 5 | 5 | 4 | 3 | 3 | 4  | 41    |
| S12         | 4              | 4 | 4 | 5 | 5 | 5 | 4 | 3 | 3 | 4  | 41    |
| S13         | 4              | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 5  | 45    |
| S14         | 4              | 5 | 4 | 5 | 5 | 5 | 5 | 4 | 4 | 4  | 45    |
| S15         | 5              | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 4  | 47    |
| S16         | 5              | 5 | 4 | 4 | 5 | 5 | 4 | 4 | 5 | 5  | 46    |
| S17         | 5              | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5  | 50    |
| S18         | 5              | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5  | 50    |
| S19         | 4              | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5  | 48    |
| S20         | 5              | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 5  | 48    |
| Total score |                |   |   |   |   |   |   |   |   |    | 843   |
| Percentage  |                |   |   |   |   |   |   |   |   |    | 84,3  |

$$\text{Score (\%)} = \frac{\text{Total score obtained}}{\text{Maximum score}} \times 100\%$$

$$\text{Score (\%)} = \frac{843}{1000} \times 100\%$$

$$\text{Score (\%)} = 84,3\%$$

From the percentage obtained, namely 84.3%, it can be concluded that the media that has been developed and tested is "valid" in terms of increasing students' vocabulary and can motivate students to learn English.

## 5. Evaluation phase

In this study, researchers only used formative evaluation. Formative evaluation is conducted to collect data at each level that is used for improvement (Fayrus & Slamet, 2022). This is because researchers focus on outcomes during the media development process. So, if something is found that is not appropriate or the researchers receive suggestions from the validator, revisions are immediately carried out to improve the media so that the media developed is in accordance with needs.

## DISCUSSION

The first Phase, carried out by researchers is analysis. The basis for all subsequent stages of instructional design is the analysis phase (Muruganantham, 2015). At this step, the researchers analyzed the curriculum used in class 10-2 of Madrasah Aliyah Sirojut Tholibin, to determine what abilities or competencies the students were expected to achieve. The curriculum used is the *Merdeka* curriculum. Then, researchers analyzed the needs of students based on English subjects. To analyze these needs, researchers conducted observations during learning and distributed questionnaires to 20 students. The results of the needs analysis questionnaire stated that students did not understand the meaning of the vocabulary. Then it causes them not to understand the material presented and makes them lazy to learn English. The solution offered by the researcher is to develop learning media based on the Wordwall website which according to previous research can improve vocabulary understanding and student learning motivation. In addition, this media is considered to have many advantages such as many game templates that can be used in it, games can be printed in PDF form, and easy to create and use.

After carrying out the analysis, the next step is the design. The results of the previous analysis are used as a basis for determining how learning media will be designed. The design outlines goals, relevant learning materials, and methodologies (Kim et al., 2020). In this step, there is a learning planning process using learning media based on the Wordwall application. Researchers used fractured stories material because the material is the next material that will be taught by the teacher. The

material content of the Wordwall website-based learning media is designed based on students' needs for vocabulary understanding. The selection of vocabulary to be used is vocabulary related to text elements, verbs, and adjectives that characterize fractured stories. In addition, researchers also looked for pictures that were by the planned vocabulary.

The development phase includes producing and testing the approach utilized in the project (Ghani & Daud, 2018). In this step, researchers make media which includes the process of collecting materials, selecting game templates, and completing content with the material that has been designed. After that, the validation process is carried out to test the feasibility of the instrument in the form of a questionnaire and will be distributed to media validators, materials, and students. Testing the feasibility of this instrument received a percentage of 80%, which means that each instrument is "valid" or suitable for use and distribution. Then the media validation process, the purpose of validating the media is to find out the media developed is feasible in the trial. The results of media validation get a percentage of 90% or can be interpreted as "valid" for further testing to students during learning. Furthermore, material validation, material that has been designed and put into the media needs to be validated to find out whether it is by the material that students should learn. The results of this material validation received a percentage of 78% or declared "valid" and feasible to use in the learning process.

The implementation phase is carried out by testing the media after all validators agree on the feasibility of the media. The implementation was carried out with the learning process as usual. The researcher acts as a teacher who at the beginning of the lesson will open the class with greetings and prayers, then explain that it will continue the material previously learned with games using Wordwall media, explain and guide students on how to play using the media, play using the media, distribute questionnaires, after finishing closing the lesson with prayer and greetings. The results of data analysis obtained from student questionnaires were averaged and then concluded with a percentage of 84.3%. From these results, it means that the media used is "valid" or they agree that the Wordwall website media is suitable to increase their understanding of vocabulary and motivation to learn in English.

## **CONCLUSION**

Based on the findings and discussions, instrument experts, media experts, and material experts received validation results that the media developed belongs to the "valid" media category. Which means it is very good to be implemented for students. Then, when the product was implemented in class, students were given a questionnaire for students' responses to measure how satisfied they were when using the media. The findings of the student response questionnaire are classified as "average", then the results of student satisfaction when using the media are 84.3% or

represented in the "valid" category. It can be interpreted that the media that has been developed and used can help them increase and understand vocabulary. In addition, they are also more motivated to be enthusiastic in learning English.

This research is expected to provide implications for the English language learning process. The implications are divided into two, namely theoretically and practically. Theoretically, this research is expected to add insight and knowledge about the media used to teach vocabulary for grade 10. In addition, it is also expected to be a means of developing the knowledge learned theoretically at every level of education. Then, in its practical implications, there are 3 scopes that the researcher wants to address. First, for students are expected to be more interested and more active in improving vocabulary mastery through the English language learning process by using the Wordwall website media. Second, for the teachers are expected this research can be used as a consideration for teachers in every lesson and can be a learning media solution that suits the needs and interests of students. Third, for researchers are expected to improve the ability of researchers in developing knowledge and providing solutions to problems that arise when students learn English.

Additionally, the researchers hope that other researchers who want to develop the same media in the future. This research is restricted to a small number of cases to keep it from growing further. This media is exclusively used to teach grade 10 students, contains Fractured Stories material, and is only used for vocabulary teaching. As a result of these limitations, it is hoped that the scope of this research will be increased in the coming years by new academics interested in doing it. For future researchers recommended to develop media for other grade levels, develop new materials, add more interesting vocabulary, experimenting with other learning media, and of course conduct a more in-depth analysis than this study.

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