

Developing Vocabulary Game through “Eclipse Crossword”

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Abstract: This research is aimed to develop a vocabulary game by utilizing an eclipse crossword web application. It is done to motivate the third-semester students of Baltar Islamic University in learning vocabulary. This research is Research and Development (R&D), which used the ADDIE’s model. It consists of analyzing, designing, developing, implementing, and evaluating. This means, at the end of the research, a specific product is produced. It is a puzzle game through eclipse crossword which can be used in the learning process and overcome the students’ problems with vocabulary lack. The data was collected through interviews, questionnaires, documentation, and test. The result of the research showed that the result for all validation was 88%. The score was categorized as “very good” with intervals $80\% < x \leq 100\%$. So, the development of a vocabulary game through eclipse crossword for learning vocabulary was valid to be implemented for the third-semester students of Islamic Balitar University. So, in another word the students absolutely agree with using an eclipse crossword in learning vocabulary.

Keyword: Teaching, Vocabulary, Crossword

INTRODUCTION

Education today is in the area of rapid technology development. The rapid technology requires rapid innovation in education through designing and developing learning strategies, methods, management, activity, and even learning media. For easy learning, students can start by learning vocabulary due to is the basic component of English. Having vocabulary media in the English classroom makes the teacher easy to teach and motivates the students happy to learn. Media in the teaching and learning process will not only lead the students to easy learning and create joyful learning but also prosecute the students to think creatively. ¹ concludes that learning media can be understood as a tool to deliver the message and to create a conducive learning environment in which acceptance can carry out the learning process efficiently and effectively. ² Learning media can be developed through various media products, such as books, modules, based on android applications, web-based applications, etc. As a medium of learning in this modern era, researchers create innovation by making a puzzle through an eclipse crossword. The application of using media in the learning process is very important as a support for students’ activity to create creative thinking and do joyful learning. In the era of digital industry 4.0, applying technology is the most appropriate technique to be applied in learning vocabulary ³. Teachers and students can

¹ Triyadi (2015)

² Sari et al., (2018)

³ Ruth Maharani and Hesty Sari, “Developing Mobile Application Based on Android for Learning Vocabulary for Grade Ten,” *Advances in Educational Technology* 1, no. 1 (2022): 23–30; Hesty Puspita Sari and Wahyu Dwi Lestari, “Designing Superlary Game to Learn Vocabulary of Tenth Grade Students,” *EDUCATIO: Journal of Education* 5, no.

create several activities with technology.

Arsyad ⁴ state that the media if understood board is human, material, or events that build conditions, caused students to get knowledge, skill, and behaviors. Means, teachers, textbooks, and the school environment are media. Those are surrounding us and can be taken to get, process, and build verbal and visual information called by media. Bober & Dennen ⁵ emphasizes that learning media is an effective media to be applied in the teaching process with an arranged plan. For several reasons above can be concluded that media is a tool, a means, and a medium to deliver messages or information easily. Teachers or lecturers can conduct a learning process using media to help them easily deliver material to the students. Of course, the students will pay more attention and motivation to learn. Students who have less motivation will be motivated by having media in the learning process. In teaching vocabulary, media give benefits for students to memorize the words.

Wahyuni ⁶ states that vocabulary is the total number of words that make up a language. How could we speak without several numbers of word? While Schmitt⁷ adds that vocabulary is one of the most recognized components of language. Rohmatillah ⁸views vocabulary items as a boring list of words that must be defined and memorized by the student, lexical forms are seen in their central role in contextualized, meaningful language.

According to Sari⁹, vocabulary can be defined roughly as the words we teach in a foreign language. However, a new item of vocabulary may be more than a single word: “post office” which is made up of two words “post” which means place or station, and “office” which means agency or organization but expresses a single idea that is “Kantor pos”. It means that every new word in the foreign language taught by the teacher is used for the students’ daily conversation based on the level.

Nation ¹⁰ says that there are some techniques in presenting vocabulary. Recognizing, hearing, pronouncing, grasping the meaning, practicing from meaning, reading the word, and writing the word. Grasping meaning can be applied in the teaching-learning process where the teacher doesn’t give the meaning of the word directly but he/she puts across the meaning definition, opposites, synonyms, dramatization, realia, and picture. From the definition above vocabulary means a word or more which expresses the meaning or idea to construct sentences for communication.

One of the strategies that aim at improving the mastery of vocabulary in this digital era is by applying technology in the classroom. Having a crossword puzzle is one strategy that can be applied in the classroom where students are familiar with the gadget. The greatest influence on actual classroom practice has come from the lexical approach advocated where crossword puzzle usage can foster vocabulary acquisition and thereby make a significant contribution to language learning ¹¹.

Several ways to create a crossword puzzle. The crossword puzzle can be designed paper-

2 (2020): 159–168.

⁴ Arsyad, (2011)

⁵ Bober & Dennen (2001)

⁶ Wahyuni, (2012)

⁷ Schmitt & Schmitt (2020)

⁸ Rohmatillah, (2014)

⁹ Sari, (2008)

¹⁰ Nation (1982)

¹¹ Jack Burston, “Theoretical Foundations of Crossword Puzzle Usage in Foreign Language Vocabulary Acquisition” (ResearchGate, 2005).

based or computer-based. Some computer-based are crossword makers, crossword puzzle games, or eclipse crossword. Eclipse crossword is an application for making a crossword. The teacher can design a class game of crossword puzzles by eclipse crossword.

Based on the results of observations on vocabulary learning conducted at Balitar Islamic University in the 3rd-semester students in April 2019, the third-semester students still did not master the vocabulary well. Having a lack of vocabulary makes it the students difficult to practice their English. Furthermore, the teacher has tried several techniques to overcome the silent class where the students do not active in learning English. With the emergence of these problems, researchers developed a puzzle material through an eclipse crossword" as a learning medium in the vocabulary class for third-semester students at Balitar Islamic University. For this reason, researchers developed media to help students memorize their vocabulary quickly and easily.

METHOD

In this research, the researcher made a vocabulary game in a form of a puzzle by eclipse crossword to improve students' vocabulary mastery. Therefore, the researcher used Research and Development (R&D) as a research design. While the approach used by the researcher is the qualitative descriptive approach¹². The result of learning information technology by the ADDIE model can enrich the teacher pedagogy in the learning process and overcome the problems of interaction in the teaching-learning process.

The researcher adopted this framework and research procedure from ADDIE'S model. This model is very simple to conduct. It consists of analyzing, designing, developing, implementing, and evaluating¹³. This means, at the end of the research, a specific product is produced. It is a puzzle game through eclipse crossword which can be used in the learning process and overcome the students' problems with vocabulary lack.

This model is used by the researcher because this stage was appropriate for developing the media. The stages can be shown below :

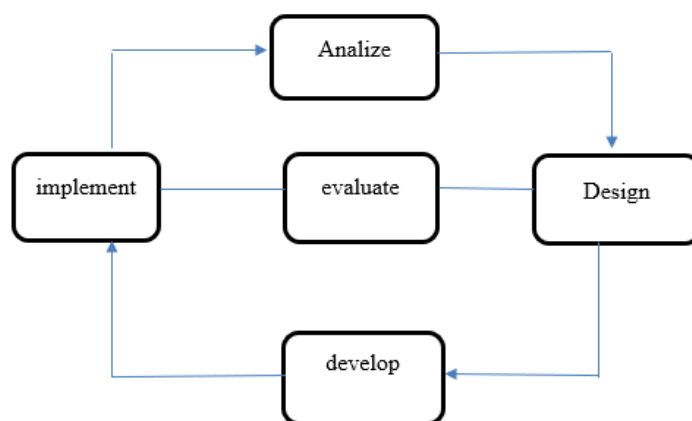


Diagram 1: ADDIE's model

This model has 5 steps to produce a product. Each step has a different goal to be targeted. They

¹² Sophie Laws et al., *Research for Development: A Practical Guide* (Sage, 2013).

¹³ Rifqa Gusmida and Nur Islami, "The Development of Learning Media for the Kinetic Theory of Gases Using the ADDIE Model with Augmented Reality," *Journal of Educational Sciences* 1, no. 1 (2017): 1–10.

are:

1. Analyzing

Analyzing the need of developing a learning model. Developing the new learning model is begun with the problems of the old model. After analysis, the problems need to develop a new learning model. The process of analysis may answer the questions of whether the new model can overcome the learning problem or not, whether the new model can be applicated in the learning activity, and whether the lecturer can applicate the new model or not.

2. Designing

The steps in designing a learning model are almost similar to designing a learning activity. It is a systematic process that begins with stating the goal, planning the activity, and designing the material. The design in this step is k

Conceptual design is a basis for developing the product.

3. Developing

Development in ADDIE's model is product design realization based on a product plan suited to the model structure. This step is also creating the instrument to measure the use of the product.

4. Implementing

The product is applied in this step in the learning process. After applying it, the interaction among the students and the evaluation process is done to do product reflection.

5. Evaluating

In the evaluation, the researcher looks at the impact of learning, measures product development, measures the learner's achievement, and finds the information to make the students get a good achievement.

In this research, the researcher used validators. They were validators of material and validators of media. The validation aims to make the product become better in quality.

The analysis used in this research is descriptive analysis with the steps below:

1. Collecting the data from the expert, media, lecturers, and students
2. The tabulation used is the Likert scale.

Table 1: *Likert scale*

Skor	Predicate
1	Sangat Kurang
2	Kurang
3	Cukup
4	Baik
5	Sangat baik

The structure is

X = average score of each component

$\sum x$ = the sum of the gotten score

N = the sum of aspect

Eko P.Widoyoko (2013: 238) states that:

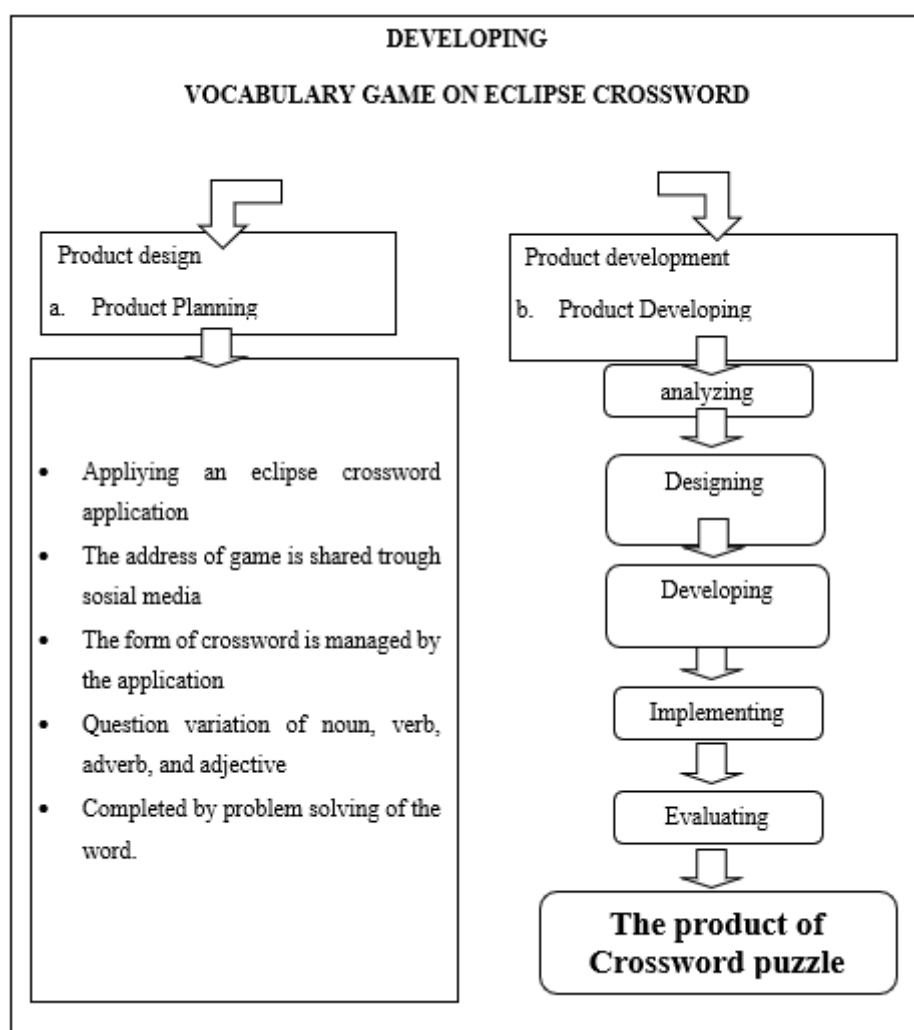
Table 2: the formula of quantitative data to qualitative data

Skor	Nilai	Rumus skor	Kriteria
5	A	$X > \bar{X}_i + 1,8 \times s_{b_i}$	Sangat baik
4	B	$\bar{X}_i + 0,6 \times s_{b_i} < X \leq \bar{X}_i + 1,8 \times s_{b_i}$	Baik
3	C	$\bar{X}_i - 0,6 \times s_{b_i} < X \leq \bar{X}_i + 0,6 \times s_{b_i}$	Cukup
2	D	$\bar{X}_i - 1,8 \times s_{b_i} < X \leq \bar{X}_i - 0,6 \times s_{b_i}$	Kurang
1	E	$X \leq \bar{X}_i - 1,8 \times s_{b_i}$	Sangat kurang

RESULT AND DISCUSSION

The first step was taken by the researcher to know the student's potential is by giving unstructured observation and interview. The researcher developed the design and the product in 5 steps. They are analyzing, designing, developing, implementing, and evaluating. The research final is producing a specific product that is a crossword puzzle to help the teacher run the class and to overcome students' difficulties in mastering vocabulary.

Here is the flowchart for developing a vocabulary game through eclipse crossword.



Flowchart of product design development

The researchers develop the design and the product in 5 steps. It is based on ADDIE's model. They are analyzing, designing, developing, implementing, and evaluating.

Analyzing

The researcher analyzes the need for learning. The analysis is done by doing class observation, whether the students are motivated or not in learning English, especially in vocabulary class. After doing observation, the researcher listed the problems and try to develop a new learning model. In this step, the students were given a questionnaire to get the point of the problem.

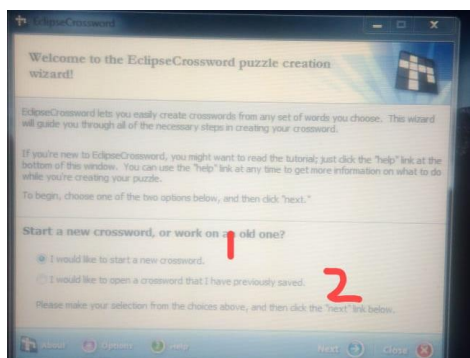
Designing

The researcher designed the learning model. She started by planning, revising, and evaluating. She listed the noun, verb, adverb, and adjective. Students will be asked to fill the crossword based on the question. Finally, she got a new conceptual learning model.

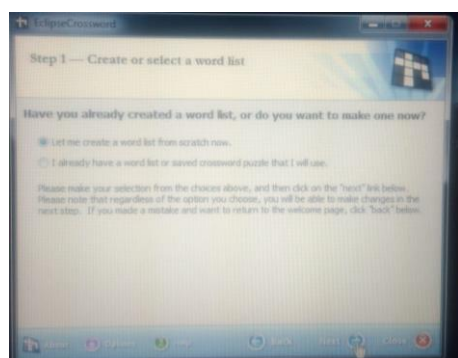
Developing

The researcher developed a product. The product is a crossword game. She developed it using ADDIE's model. The development is based on product planning. The researcher developed the crossword puzzle in the following steps:

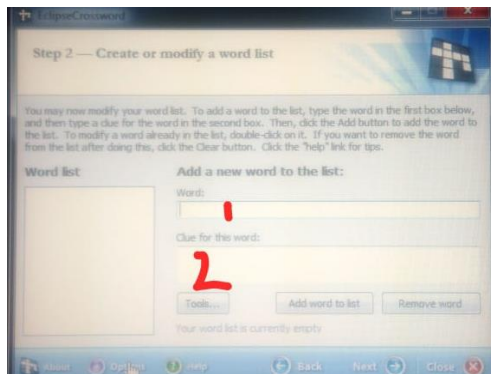
1. Opening the eclipse crossword creation wizard



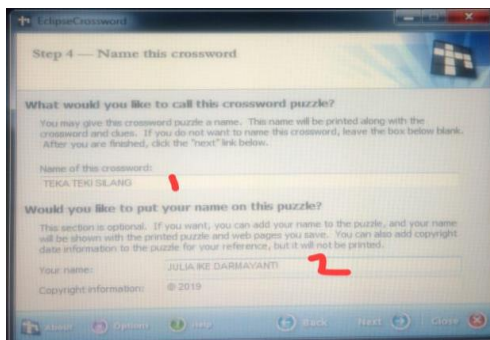
2. Create a word list



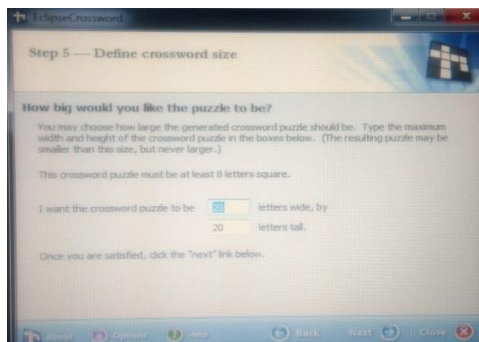
3. Modify a word list



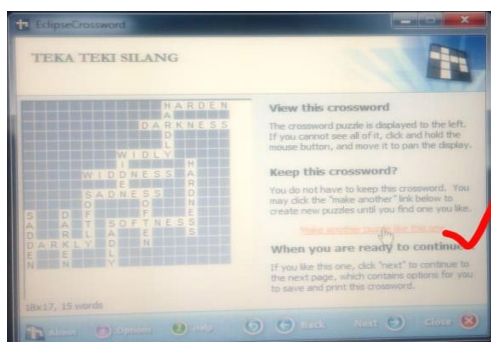
4. Name your crossword



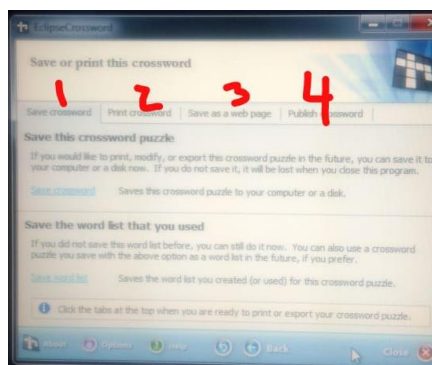
5. Define your crossword size



6. Your crossword puzzle is ready



7. You can either print or save your crossword puzzle on the web



Implementing

The researcher implemented the product in a learning process. She tried applying crossword puzzles in vocabulary class. The implementation is ended by giving a reflection on the class situation and the use of the crossword puzzle.

Evaluating

The researcher evaluated to get the impact of learning. The evaluation is done by doing the test. It is done not only to know the student’s achievement but also the effectiveness of using crosswords. The percentage score of the crossword puzzle for teaching vocabulary by validators consists of the validation media and material. Listed in the table below:

The Result of the Recapitulation Validation

No	Validator	Component	Percentage	Criteria
1	Validation of media “crossword puzzle”	The media presentation of a crossword puzzle	89,00%	Very good
2	Validations of material Average	Content of material	87,00% 88,00%	Very good Very good

CONCLUSION

The students’ questionnaire shows that the use of the puzzle game eclipse crossword as a learning media in vocabulary class was very interesting. They can enjoy learning by game. The researcher also found a significant difference between before and after implementing crossword puzzles in vocabulary class.

Based on the result of development, it can be concluded that developing a crossword puzzle brought the eclipse crossword is effective in improving students’ competence in vocabulary.

Moreover, the researcher suggests implementing a game, especially crossword puzzles as a learning medium in vocabulary class.

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