



Developing an Interactive Card as Media to Increase Students Vocabulary Mastery at Junior High School

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ABSTRACT

The present research is aiming at developing an interactive card as media to increase students' vocabulary mastery at SMP PGRI 1 Wajak. The limited media and low vocabulary mastery are two main reasons why this research is conducted. This research is carried out through research and development adapted from R&D (Research and Development) of Borg and Gall which later has been adapted to the current needs. The development of this interactive card is carried out in several stages which cover: (1) need analysis, (2) planning, (3) product development, (4) expert validation, (5) product revision, (6) limited trials, (7) final product. The results of the validation of the material experts show the total score of 31 out of a maximum score of 35 with a percentage of 88%, and the criteria for the eligibility level show the percentage of 80 – 100%, then the product is classified as a valid qualification and suitable for use. From the validation results of media experts who are declared worthy and good to be tested on the audience. The trial was conducted to determine the feasibility of interactive card media based on audience assessment of 23 students of SMP PGRI 1 Wajak. The trial was carried out by using the media in the learning process. The results of class trials for class VIII B SMP PGRI 1 Wajak show the total score of 718 from a maximum score of 750 with an average result of 95.73%, and the eligibility level criteria show a percentage of 80 – 100%, then the product is classified as a valid qualification and suitable for use.

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INTRODUCTION

Learning media is an inseparable part of the process of learning activities in schools. Utilization of learning media is also a creative and systematic effort to create experiences that can help students learning processes. This is because learning media plays an important role as a learning stimulant tool and can foster learning motivation so that students do not get bored easily in following the teaching and learning process. Even so, it should be noted that the selection of learning media must be in accordance with the learning objectives and competencies to be achieved. According to Sadiman (2008) Learning media is

anything that can be used to transmit messages from the sender to the recipient of the message. Romiszowski in Basuki and Farida (2001) learning media is an effective medium to carry out a well-planned teaching process. Djamarah and Zain (2010) revealed that learning media is any tool that can be used as a channel for messages to achieve learning objectives. It is this understanding of the media that underlies this research.

Based on the facts that have been found in the field, the results of the pre-research at SMP PGRI 1 Wajak which was carried out by observing the conditions of teaching and learning between educators and students in English subjects in class, especially class VIII, it has been found that the process of learning English is good enough and educators also understand the existence of learning media that can help make it easier for educators to deliver material, however, English learning has not been running effectively this is because in the learning process taught or delivered by educators in English subjects at SMP PGRI 1 Wajak, only uses the package book media owned by each student as learning material, so that learning becomes unattractive, students are also very bored with learning that only uses textbooks as a medium to support learning.

The problem faced by students at SMP PGRI 1 Wajak is the lack of vocabulary mastery, so that students find it difficult to learn English. This makes students less interested in learning, the lack of student vocabulary can be seen from the difficulty of students in interpreting words, and errors in writing this are also based on the limited vocabulary possessed by students. The process of learning vocabulary mastery in schools has not utilized interesting, fun and less varied learning media, learning is still monotonous and the activities carried out in learning are not interesting because students are only instructed to take notes and translate. Whereas Aqib (2002) explains that learning through various forms of games can provide interesting experiences for students in recognizing and understanding a concept, strengthening concepts that have been understood or solving problems. With inadequate conditions and media, students' vocabulary mastery is still very minimal. The use of unattractive media also results in students often feeling bored and less enthusiastic about participating in learning. This is indicated by the presence of students who only flip through books, look out, disturb their friends, even what often happens is that they always get permission to go out to the bathroom.

Besides that, the package book used contains writings and pictures that are not too many and not very interesting for students. Some of the weaknesses in learning are that students are still taught using the lecture method by educators so that learning becomes monotonous which makes students a little bored during the learning process. This is what causes English learning to be ineffective in its delivery. The English lessons that students learn or receive so far seem mediocre because they only use existing textbooks, and educators have not used English learning media that can inspire students' enthusiasm. In this case, educators support the existence of learning media in the form of interactive cards that can improve students' vocabulary mastery so that students are more interested in learning English.

This is an important issue to discuss considering the condition of the students at SMP PGRI 1 Wajak who are still lacking in vocabulary mastery making it difficult for them to communicate in English, in addition they also cannot accept learning well and are not serious in participating in learning. To overcome these problems, the authors are interested in making interactive card learning media. Cards are one of the learning media that are expected to cause excitement and can provide interesting experiences for students, so as to reduce or eliminate student boredom when learning. Cards are also visual media, because cards contain teaching materials in the form of images or writing that can be seen. The interactive card is expected to improve students' vocabulary mastery in English learning that has an attractive appearance so that students are also more interested and have an interest in learning English so that learning becomes easy, fun and not boring.

METHODS

Research Design

The development of interactive card media is an activity carried out with the aim of helping the process of teaching and learning activities. Understanding Research Development is often defined as a process or steps to develop a new product or improve an existing product. What is meant by product in this context is not always in the form of (hardware) such as books, modules, learning aids in the classroom and

laboratories, but can also be software (software) such as programs for data processing, classroom learning, libraries or laboratories, or models of education, learning training, guidance, evaluation, management, and others.

According to Gay (1990) development research is an effort or activity to develop an effective product for school use, and not to test theory. Meanwhile, Borg and Gall (1983:772) define development research as a process used to develop and validate educational products. Seals and Richey (1994) define development research as a systematic study of the design, development and evaluation of programs, processes and learning products that must meet the criteria of validity, practicality, and effectiveness. This study uses the Research and Development (R&D) model of Borg and Gall which has been adapted to the needs in order to facilitate development in accordance with the objectives to be achieved.

Research Procedure

The development procedure is the procedural steps taken to develop a product. The development of this interactive card is carried out in several stages of manufacture. The steps of this development are as follows:

1. Need analysis
2. Planning
3. Product development
4. Expert Validation
5. Product Revision
6. Limited trials
7. Final Product

Research Instruments

The instrument used for data collection in the research on the development of interactive card media to improve students vocabulary mastery is by conducting interviews, observations and questionnaires or questionnaires. Interviews are used to see what needs are being needed for classroom learning. Researchers conducted direct observations on the subjects studied, namely class VIII B students at SMP PGRI 1 Wajak. Then observation, this observation was conducted to obtain data about students abilities in learning vocabulary to see if it supports learning by using interactive cards. In addition, observations were also made to see the situation, conditions and activities of teaching and learning activities in the classroom, how the attitudes of students during the learning process in the classroom, what media are used in teaching and learning activities, to see student responses to interactive cards that will be tested, and to see the ability of students to understand the material presented through interactive cards. At the time of observation, the researcher makes notes about when, where, what, and who is being studied. Meanwhile, questionnaires or questionnaires were used to determine the responses of experts and students to the products developed. The data used in research and development of this media is using a closed questionnaire. Closed questionnaire is one type of questionnaire in which the answers to the question in the questionnaire have been provided by the researcher, so that respondents only answer questions according to the answer choices that have been determined or provided by the researcher.

Data Analysis

Techniques data analysis techniques on the questionnaire to determine the level of feasibility of materials and media with a multilevel scale using the percentage technique.

1. The formula used to determine the feasibility of the media from media experts and material experts:

$$P = \frac{x}{xi} \times 100\%$$

Information:

P = Percentage

x = Acquisition score

xi = Maximum score

The results of the percentage of data obtained are converted into a quality statement by looking at the eligibility criteria.

Category	Percentage	Qualification	Equivalent
(A)	80% - 100%	Valid	Worth it
(B)	60% - 79%	Quite valid	Quite decent
(C)	50% - 59%	Not valid	Not worth it
(D)	0% - 49%	Invalid	Not feasible

Description of eligibility criteria:

- When percentage 80% - 100% then the product is classified as a valid qualification.
- When percentage 60% - 79% then the product is classified as a fairly valid qualification.
- When percentage 50% - 59% then the product is classified as an not valid qualification.
- When percentage 0% - 49% then the product is classified as invalid.

2. The formula used to determine the feasible of the media from the audience:

$$P = \frac{\sum x}{\sum xi} \times 100\%$$

P = Percentage

$\sum x$ = Total score acquisition

$\sum xi$ = Max total score

The data processing of the audiences trial results is determined by looking at the answer choices in the questionnaire. This questionnaire has a value range of 1 – 4. Answers to questions in the questionnaire include.

- Very interesting worth= 4
- Interesting value = 3
- Less attractive value = 2
- Unattractive value = 1

Thus the interactive card media developed can be said to have been used if it is successful and in accordance with the minimum percentage score of 60%.

FINDINGS AND DISCUSSION

Finding

This development research has produced a product "Development of Interactive Cards as a Media to Improve Students' Vocabulary Mastery at SMP PGRI 1 Wajak" based on the quality of the media and good content standards, this Interactive Card media discusses material about students' vocabulary mastery. The learning media developed will be declared feasible and valid to use based on validation from material experts and validation from media experts then from the results of audience trials from class VIII B students of SMP PGRI 1 Wajak.

1. Research and Data Collection

Research and Data Collection is the initial process in developing this interactive card media by direct observation at school. The results of direct observation researchers get observations about how the learning process, the facilities owned and how the behavior of students when participating in learning.

2. Planning

- Microsoft Word 2013 is software used to create images using shapes.
- Add images and materials in shapes
- Gives a color to each image and picture

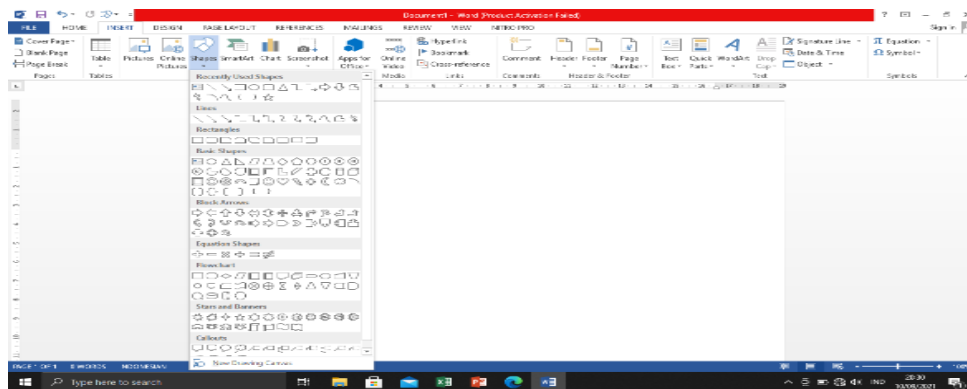


Figure 1 Appearance of Card Making Activities

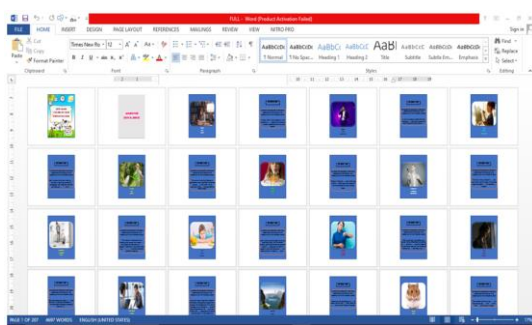


Figure 2 Appearance of Adding Images and Text

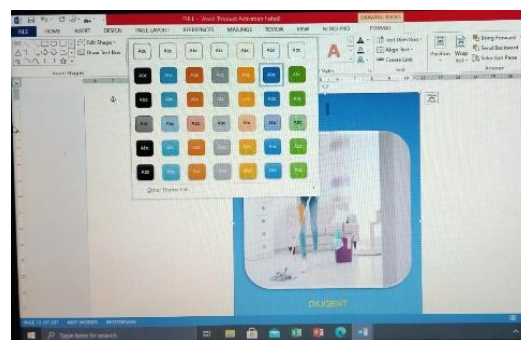


Figure 3 The Appearance of Adding Color to The Card

Material Expert Validation Results

The formula used to determine the feasible of the material expert material:

$$P = \frac{x}{xi} \times 100\%$$

Information:

P = Percentage

x = Acquisition score

xi = Maximum score

The results of material expert validation from the acquisition score of 31 so: P = 88%. The validation results from the material experts show that the total score is 31 out of a maximum score of 35 with a percentage of 88%, and the criteria for the eligibility level of the percentage of 80 - 100%, then the product is classified as a valid qualification and suitable for use. According to the results of the validation of interactive card media from material experts, they get recommendations that are feasible and valid. Besides, the development of this interactive card media received suggestions to improve the final product.

Media Expert Validation Results

The formula used to determine the feasible of the media from the audience:

$$P = \frac{\sum x}{\sum xi} \times 100\%$$

P = Percentage

$\sum x$ = Total Score Acquisition

$\sum xi$ = Maximum Total Score

The number of class VIII B students at SMP PGRI 1 Wajak is 23 students: $\sum x = 718$, $\sum xi = 750$, thus P= 95,7.

The test results for the audience in class VIII B SMP PGRI 1 Wajak showed the total score was 718 from a maximum score of 750 with an average percentage of 95.73%, and the eligibility level criteria showed

a percentage of 80 – 100%, then the product was classified as valid qualification and proper to use. Interactive card media products that have been tested in the classroom, then revised again based on suggestions and input from media experts, material experts and students as audiences, then this interactive card media product becomes the final product. The final result of this research and development is the final product of interactive card media that is ready to be used and utilized in learning English. The following is the final view of the development of interactive card media:

Final Product

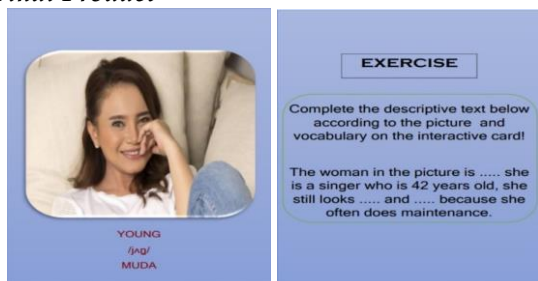


Figure 4 Display in The Final Product of Interactive Card Media



Figure 5 Interactive Card Media Final Product Outer Display

Discussion

This research uses the type of research on the development of media programs adapted from R&D (Research and Development) by Borg and Gall which has been adapted to the needs. This development research resulted in good, appropriate and appropriate media products to be used in learning English to improve **students' vocabulary mastery**. The first development research was carried out by Nofa Putri Amanda (2019) with the title "Development of Interactive Learning Media in the Introduction of Marcomedia Flash-Based Basic English Communication". The difference with this study is that the material discussed is to improve students' vocabulary mastery and use of the media. The results of relevant research that have been carried out have received a score of 87.5% product quality, the value of media experts, 95.56%, from material experts 97.5%, while the responses from students were 90.5% and 85.8%. Overall, these scores are in the very decent category.

The second development research was carried out by Sarfani (2018) with the title "Development of Interactive Multimedia-Based English Teaching Materials on Descriptive Text Materials in Improving Student Learning Outcomes and Motivation". The difference with this research is in the material discussed and the product produced. The research product from Sarfani is in the form of a power point, while the product of this research development is an interactive card that contains pictures and will not be damaged. The results of relevant research that have been carried out have increased from the percentage of class completeness from 42% to 90%. For the percentage of motivation from 54.9% before using the developed teaching materials to 81.1%. These results state that product development is good and feasible to use in learning.

The third development research was carried out by Hamdi Zas Pendi (2020) "Development of Interactive Multimedia in Increasing Students' Interest in Learning English". The difference with this research is in the material in the language and the product produced. The research product from Hamdi Zas Pendi is in the form of a CD (Compact Disc), covering visual, audio, audio visual, and kinesthetic aspects. while the product of this research and development is an interactive card that contains pictures and will not be damaged. The initial interest of students found in the field before interactive multimedia was developed through interactive multimedia with a score of 60.44%, students' interest in learning increased after interactive multimedia was developed with multimedia with a score of 88.76%. These results indicate that product development is in the very good category.

The results of the validation and assessment of "Development of Interactive Cards as Media to Improve Students' Vocabulary Mastery at SMP PGRI 1 Wajak" from media experts and material experts as well as the audience show the feasibility of this interactive card media. The feasibility of this media

is seen from various aspects including the overall media, appearance, learning, material content, motivation and convenience. The validation results from material experts show that the total score is 31 out of a maximum score of 35 with a percentage of 88%, and the criteria for eligibility level of 80 - 100%, then this product is classified as a valid qualification and feasible to use.

From the theories above, it can be compared and concluded that, from the first theory, namely "Development of Interactive Learning Media in the Introduction of Marcomedia Flash Based Basic English Communication". Which scores 87.5% of product quality, the value of media experts, 95.56%, from material experts 97.5% while the responses from students were 90.5% and 85.8%. overall these scores are in the very decent category. Then from the second theory, namely "Development of Interactive Multimedia Based English Teaching Materials on Descriptive Text Materials in Improving Students Learning Outcomes and Student Motivation". The results of the study increased from the percentage of class completeness from 42% to 90%. For the percentage of motivation from 54.9% before using the developed teaching materials to 81.1%. these results state that product development is good and feasible to use in learning. Then from the third theory, namely "Development of Interactive Multimedia in Increasing Students Interest in Learning English". The initial interest of students to learn got a score of 60.44% and student interest in learning increased after using interactive multimedia with a score of 88.76%. these results indicate that product development is in the very good category.

CONCLUSION

Based on the results of the analysis of the research results, it can be concluded that: The process of developing interactive cards as a medium to improve students' vocabulary mastery using a modified Sugiyono's media development model consists of (a). Research and Data Collection, (b). Planning, (c). Develop The Product, (d). Final Products, (e). Product Revision, (f). Expert Validation. The model for delivering material using this interactive card is a card that contains pictures and contains English vocabulary according to the picture on the card such as a picture of a flower, so the vocabulary on the card is the meaning of the flower in English. The results of the validation of media experts and material experts concluded that the product "Development of Interactive Cards as a Media to Improve Students' Vocabulary Mastery" was feasible and could be tested in the field. The results of the trial show that students assessment of the media is included in the category of interesting intervals and very attractive to the class VIII B audience at SMP PGRI 1 Wajak, showing the total score of 718 from a maximum score of 750 with an average percentage of 95.73%, and the eligibility criteria shows the percentage of 80 - 100%, then the product is classified as a valid qualification and suitable for use.

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