DEVELOPMENT OF FLASHCARD MEDIA BASED ON BLENDED LEARNING FOR PRIMARY SCHOOL TEACHER EDUCATION (PGSD) STUDENTS AT KHAIRUN TERNATE UNIVERSITY

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A B S T R A C T

Education is an aspect of life that is closely related to human life, and education is one of the pillars that plays an important role in creating quality people. This study is based on a lack of student understanding of the use of interesting media in the learning process. The purpose of this study is to develop and test the feasibility and effectiveness of a 'flashcard-based blended learning' media. The type of research is research and development using the ADDIE model. Research methods are analysis, design, development, implementation and evaluation. The subjects were 30 PGSD fifth semester students. Observations, tests, interviews, questionnaires, and documents are used to collect records. Data analysis techniques using product data analysis, initial data analysis, hypothesis testing, and n-gain testing. The results showed that the media "Flashcard based on blended learning" was very feasible to use with an average percentage of material expert judgment of 86.63% and 90.21% of media experts. he average score on the test went up by 72%, which is evidence that the test was measuring something important. The N-Gain calculation shows that the data is likely to be significant, which means that the average score between the pretest and posttest was different significantly. Research shows that flashcard-based learning media is a good way to learn at Khairun University. However, more research is needed to make sure the media is developed specifically for students there and that it is used in the best way possible.

Introduction

Education is an aspect of life that is closely related to human life because education is one of the pillars that has an important role in creating quality human beings. On the roles and goals of education as stated in Law on the National Education System No. 20/20/2003, Chapter 2, Article 3 states that national education is to develop skills related to the formation of national life, to form a fine national character and civilization, and to cultivate the potential of students. The purpose is that. And fear God Almighty. To be of noble character, healthy, knowledgeable, capable, creative, independent, democratic and responsible citizen. Based on the above opinion, language is a tool for human communication produced by human speech organs. Through language, one can express everything that is put forward so that the other person will understand the meaning of the expression (Setyowati, 2022).

According to Hadimiarso (2007), learning media are those that convey messages and stimulate the thoughts, feelings, attention, and motivation of learners to facilitate conscious, purposeful, and controlled learning processes. Arsyad (2006) found that using learning media in the process of teaching and learning can stimulate new desires and interests, generate motivation, stimulate learning activity, and even have psychological effects on children. I point out that there is.

Flashcards are word picture cards introduced by Glenn Doman . The pictures on the flashcard are grouped, including the star series, fruits, clothes, colors, figures, and so on. According to Doman (1991), flashcards can be given to children as a game to recognize letters and words. Interesting flashcard pictures with striking colors will be liked by children, so teachers and parents can invite them to have fun, play and learn in a simple way. According to Kasihani (2007) flashcards are teaching aids as picture paper which has 25x30. The hand-made images, photos, or images that are adhered to the flashcard are. Agree with Kasihani Dini Indriana (2011) also revealed that flashcards are learning media in the form of picture cards that are the size of a postcard or about 25 x 30 cm.

Research by Siti Fatimah (2014) has developed flashcard media for class II students at Mi Ma'aruf Sendang Kulon Progo. The flashcard media produced is in the form of game cards measuring 6 cm x 9 centimeter which containin general game/use instructions and steps for students to use flashcard media, indicating that flashcard media is valid and very practical to use. The resulting flashcard obtained the validity of the material expert with a good score with a score of 4 with a conversion score of 4.00 while the media expert's assessment was good with a score of 4.12 with a conversion score of 4.12 with the average result obtained from the expert being 4.06. Thus the average result in terms of material experts and media experts is Good. This is in accordance with research by Hestiana Ikhwati (2014) who also developed flashcard media with media effectiveness of 84.17% according to the criteria according to BSNP and the classical completeness obtained by students during field trials reached 92%.

Keeping the aforementioned problems in mind, researchers and developers are working to create a learning tool for Khairun University's PGSD students in the form of blended learning-based flashcards. This form of media is crucial as a tool to inspire and motivate pupils since it is manufactured at a reasonable cost, is easy to grasp, and is made with these qualities. In the learning process to develop students' abilities, teachers can use writing game strategies by matching words and pictures in flashcards. Flashcards are small cards that contain pictures, text, or symbols that remind or guide students to something related to that picture. (Arsyad, 2006). The development of flashcard media was chosen based on several considerations, including: a) Learning using flashcard media can be used for PGSD students, especially so that later when students go to school they can apply it to students, b) Using flashcard media will make it easier for students in the learning process, c) The media will stimulate students to learn well, d) Learning using flashcard media is more time, cost and place efficient and more effective in realizing learning objectives. Based on the description of the problems above, the researcher will develop a flashcard learning media based on blended learning for PGSD students at Khairun University. The formulation of the problem in this study is how is the development of blended learning-based flashcard media for PGSD students at Khairun University? 2. What is the feasibility of blended learning-based flashcard media for PGSD students at Khairun University? 3. What is the effectiveness of blended learning-based flashcard media for PGSD students at Khairun University? The objectives of this study are 1. To find out the development of blended learning-based flashcard media for PGSD students at Khairun University. 2. To test the feasibility of blended learning-based flashcard media for PGSD students at Khairun University 3. To test the effectiveness of blended learning-based flashcard media for PGSD students at Khairun University.

Research Method

This research method used is the development method using the Research and Development (R&D) method, namely a series of processes or steps in order to develop a new product or perfect an existing product so that it can be accounted for. The development procedure in this study applies the ADDIE model procedure (Analysis, Design, Development, Implementation, and Evaluation). The five phases or stages in the ADDIE model are carried out systemically and systematically. This research and development uses two data analysis techniques, namely qualitative and quantitative. Place of Research This research was conducted at the PGSD Study Program at Khairun University. This research was conducted on PGSD students at Khairun University. The population in this study were all fifth semester PGSD students in 4 classes. The instruments used in this research and development are as follows: Observations made by researchers are unstructured observations, Questionnaires (questionnaires). Data analysis used in this research is qualitative data analysis and quantitative data analysis. By completing questionnaires and multiple choice questions, fifth semester PGSD Unkhair students as well as subject matter experts, lecturers, and learning media specialists provided quantitative data in the form of expert assessment scores

Result and Discussion

Development of flashcard learning media for PGSD students at Kyrung University, expert validation of teaching materials, expert validation of learning media, small trials, and field test results are presented. . The results of data validation performed on content experts can be seen in table 1.

Table 1. Data from the Evaluation of Content Experts

Aspect	∑M	∑M Ideal	Presentase	Criteria Appropriateness
Content Eligibility	39	35	87%	Very Worth it
Material Accuracy	40	45	89%	Very Worth it
Increase		45	82%	
Curiosity	37			Very Worth it
Total number	**116**	**135**	86%	Very Worth it

Description : ∑M : Sum of Material Expert Scores

Table 2. Data from Learning Media Expert validation results

Aspect	∑D2	∑D Ideal	Presentase	Kriteria Kelayakan
Appropriateness Graphics	39	45	87%	Very Worth it
Media Fascination	50	60	83%	Very Worth it
Language Eligibility	39	45	87%	Very Worth it
Total number	**128**	**150**	85%	Very Worth it

Description : ∑D : Total Score of Media Experts

A quiz was administered to a total of 35 students, targeting students in the 5th semester. In this experiment, students were asked to rate the entire picture deck from picture card I to picture 8 as a learning medium. The results of data validation performed during the experimental phase are presented in Table 3.

Table 3. Small Scale Trial Results Data

Score Component	Score Component	Score Component	Score Component	Score Component	Score Component
Small scale trials	35	137	107	79,03%,	Worthy

A total of 45 students took field tests in five semesters. In this experiment, students were asked to rate the entire pictorial map. These include appearance, charm, writing style, and learning benefits for student comprehension. Table 4 shows the results of data validation performed in field trials.

Table 4. Field Test Result Data

No	Aspect	$\sum L$
1	Media View	270
2	Media Use	519
3	Use of Language and Writing	1025
4	Appropriate Use of Animation, Images and Audio	6
5	Interest in Media Use	688
6	Material Depth	991
	Total score sum	**4260**
	Skor Ideal	**5100**
	Persentase	**84%**
	Validity Criteria	**Very interesting**

This field test was conducted on 40 students after researchers conducted a small group test of 30 students. A field test on the attractiveness of learning media found that 85% of her students were interested in using the medium when writing poetry.

Based on data analysis by materials experts, the material suitability percentage results displayed on the image map were 87% highly feasible and 89% accurate for content feasibility. Languages are highly viable and language selection is 82% viable. ,

so the good selection criteria from the material expert validation results are 86% in agreement with the highly feasible criteria, but still with minor modifications. As shown in Table 5, there are some suggestions and comments from content (material) experts about the picture cards that were created to improve the picture cards.

Table 5. Material Expert Validator Comments and Suggestions

Rated aspect	Suggestions and Comments
content feasibility	Content suitability refers to material that can be presented in a pictorial map with appropriate instructions. By verifying materials experts and providing suggestions, namely: 1. Clarify examples of each material given 2. Use terminology according to existing material concepts
Material Accuracy	Material Accuracy, Material Accuracy receives several presentation suggestions from material experts. 1. Complete core competency content, learning metrics, and learning objectives 2. Make the texture and texture of the material more vivid.
Presentation aptitude	Enhances curiosity

Based on data analysis by learning media experts, there were comments and suggestions that were validated by verifiers and used to improve the developed picture cards. Evaluated by Learning Media Experts Poems written on flashcards are available at a valid effectiveness level, with an overall effectiveness score of 85%, and may require some editing. Below are suggestions and comments from learning media experts on flashcard picture media for improving the flashcard picture cards shown in Table 6.

Table 6. Learning Media Expert Validator Comments and Suggestions

Rated aspect	Suggestions and Comments
Graphical eligibility	Add a cover design to a picture card or background.
Media fascination	The Flascard learning media uses output in the form of picture cards, namely students/users
language permission	Add some motivational phrases to the material presented Suggestions to provide a gist of the explanation can be accompanied by examples (if any) and clear, not too long, concise, easy-to-understand sentences.

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The result of developing flashcard media for PGSD students at Kairung University has been verified by experts according to their suggestions and comments and is suitable for use.

A study on the development of Indonesian language learning media was also conducted in a study titled "Development of Video Scribe Media in Improving Letter Education-Based Short Story Writing Skills of High School Students" by Winda Dwi Hudhana and Agus Sulaeman (2019) . Forms of media professional validation, material validation, and pedagogical learning validation were declared feasible. SMA N 1 Tangerang Regency Class X students' acquisition of character-building-based short story writing skills increased from a pretest average of 61.5 to an average of 73.5. Students in Class X of SMA N 19 Tangerang Regency learned short story writing skills based on character development, which increased from an average of 60 on the pre-test to an average of 70 on the post-test. The student's character education-based short story writing skill learning outcome is 49. Based on the description above, it can be seen that the application of blende learning-based Flashcard media fulfills the criteria of validity and practicality in the subject matter. This is evidenced in the percentage of the average validity value of 92.39% and can be categorized as very good and the percentage of the average practicality value is 91.23% and can be categorized as very good with 30 students as respondents

On the results of developing Flashcard learning media based on blended learning for PGSD students, material expert validation, learning media expert validation, small-scale trials, and field tests will be presented. The results of data validation performed on content experts can be seen in table 7.

Table 7. Data from the Evaluation of Content Experts

Aspect	∑M	∑M Ideal	Presentase	Standart Appropriateness
Content Eligibility	39	45	87%	Very valuable
Material Accuracy	40	45	89%	Very valuable
Gain	35	45	82%	Very valuable
Curiosity	37	45	83%	Very valuable
Total number	**116**	**135**	86%	Very valuable

Description : ∑M : Sum of Material Expert Scores

The results of data validation carried out by learning media experts can be seen in table 8.

Table 8. Data from Learning Media Expert validation results

Aspect	∑D2	∑D Ideal	Presentase	Standart Appropriateness
Appropriateness Graphics	39	45	87%	Very valuable
Media Fascination	50	60	83%	Very valuable

Language Eligibility	39	45	87%	Very valuable
Total number	**128**	**150**	85%	Very valuable

A total of 40 PGSD students were field tested. In this experiment, students were asked to rate the entire picture card. This includes appearance, attractiveness, writing style, and learning benefits for student comprehension.

Results of data verification conducted in field trials Based on data analysis by material experts, the material suitability percentage results shown on the picture cards are 87% feasible in terms of content feasibility and 89% material accuracy is Very feasible, 82% linguistic suitability So, 86% good selection criteria determined from materials expert verification very good criteria, but still small corrections left I'm here. Here are some suggestions and comments from content experts (poetry writing materials). Court cards made to improve court cards

The results of developing a blended learning-based flashcard media for PGSD students have been validated by experts according to their suggestions and comments and are suitable for use.

Conclusion

Based on the results of research and discussion, it can be concluded that the research carried out is research and development. The learning media "Flash card type blended learning" is a product researched and developed using the ADDIE development research model, which consists of five stages: analysis (analysis), design (design), development (development), and implementation (implementation). The suitability of is determined based on the results of verification by material experts and media experts. The assessment was done in media 'flashcards' by material experts and was based on blended learning with a percentage of 87.50% and had very practical criteria for material suitability. The percentage of flashcard media based on blended learning is 87.50%, which is a very good standard for material feasibility. The percentage of flashcard media is 83.33%, which is a reasonable benchmark for usability of the material.

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