Development of Flashcard Learning Media Based on Canva Application on Early Reading Material for Grade I Elementary School Students

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ABSTRACT

This study was driven by the lack of use of instructional media in classroom learning, particularly in early reading programs in elementary schools. The absence of stimulating learning activities in first grade causes children to be uninterested in reading and view reading as a boring task, both of which exacerbate their reading challenges. Our program was to develop educational resources specifically designed to increase student engagement in the classroom. The resulting instructional media consisted of notecards designed with the Canva application, following the Design and Development research methodology outlined by Richey and Klein. This study used the Planning, Production, and Evaluation (PPE) methodology. Three specialists participated in this study to evaluate the feasibility of the educational media project being developed. This investigation used expert validation questionnaires, work notes, and interviews as instruments. Each expert participated in three iterations of revision and two rounds of validation during the development of the instructional media. Recommendations for improving the standard of the media were proposed. Qualitative data were obtained from quantitative expert assessments using the Likert Scale. Based on expert reviews conducted during the final validation, flashcard learning media were very effective in teaching Indonesian reading skills to early childhood students with an average score of 91.7%.
Keywords: Flash Cards; Early Reading; and PPE

ABSTRAK
Studi ini didorong oleh kurangnya penggunaan media pembelajaran dalam pembelajaran di kelas, khususnya dalam program membaca awal di sekolah dasar. Tidak adanya kegiatan pembelajaran yang merangsang di kelas satu menyebabkan anak-anak tidak tertarik membaca dan memandang membaca sebagai tugas yang membosankan, yang keduanya memperburuk tantangan membaca mereka. Program kami adalah mengembangkan sumber daya pendidikan yang dirancang khusus untuk meningkatkan keterlibatan siswa di kelas. Media pembelajaran yang dihasilkan terdiri dari kartu catatan yang dirancang dengan aplikasi Canva, mengikuti metodologi penelitian Desain dan Pengembangan yang diuraikan oleh Richey dan Klein. Studi ini menggunakan metodologi Perencanaan, Produksi, dan Evaluasi (PPE). Tiga spesialis berpartisipasi dalam studi ini untuk mengevaluasi kelayakan proyek media pendidikan yang sedang dikembangkan. Investigasi ini menggunakan kuesioner validasi ahli, catatan kerja, dan wawancara sebagai instrumen. Setiap ahli berpartisipasi dalam tiga iterasi revisi dan dua putaran validasi selama pengembangan media pembelajaran. Rekomendasi untuk meningkatkan standar media diusulkan. Data kualitatif diperoleh dari penilaian ahli kuantitatif menggunakan Skala Likert. Berdasarkan review ahli yang dilakukan pada saat validasi akhir, media pembelajaran flashcard sangat efektif digunakan dalam mengajarkan keterampilan membaca bahasa Indonesia pada siswa anak usia dini dengan skor rata-rata sebesar 91,7%.
Kata Kunci: Kartu Flash; Membaca Dini; dan PPE

INTRODUCTION

Learning in the 21st century is full of creativity. Relevant to the opinion (Rahmawati, Dkk , 2021)that 21st century learning is based on information and communication technology and is constructional. With that, teachers are required to develop interesting and student-centered learning. In this era, teachers act as facilitators. 21st century learning is the impact of changes in society from time to time(Rahayu et al, 2022). In the 21st century, learning is not centered on teachers, but on students (Rosnaeni, 2021). Society has changed from an offline society to an online society. In 21st century learning, teachers act as innovators, namely through the use of learning media that have an impact on meaningful learning for students.(Prayogi, RD, & Aesthetics, 2019).

The development of technology to date has been increasingly advanced. This change also occurs in the aspect of education, especially in the use of learning media. The use of media in learning has undergone many changes starting from its form which was originally physical, now there are many online learning media(Ichsan et al, 2018). This change will change teachers' habits in teaching, where teachers start using digital-based media in the learning process.

The use of media in learning is very important because it is useful for efforts to improve the quality of education.(Purnamasari, 2020). The reality in the field shows that the quality of learning is still very low. The low quality of learning is largely due to the decline in students' interest and motivation to learn. The lack of interest in learning delivered by teachers causes students to feel bored following learning activities in class. This is caused by the use of media in learning which is still less varied(Dwipayana et al, 2020). So in this case, innovation is needed in learning. Currently, teachers are required to be creative in designing technology-based learning. Interesting learning media will influence students' interests and learning achievements.(Zulfadewina et al, 2020).

Education is a shared responsibility between parents, government, and society. Elementary School as the first formal education for children is the most appropriate media in forming children's thinking concepts. The role of teachers is a dominant element in determining the achievement of learning objectives that have been set in the Elementary School curriculum.

Indonesian language learning is one of the subjects taught in Elementary School with four studies, namely: speaking skills, listening skills, reading skills, and writing skills. The role of language in education is very important, because students are expected to be able to apply these four skills to support their ability to speak Indonesian well. Thus, it is hoped that students will be able to understand and apply the right language, and be able to listen to learning communicatively.(Rosye et al., 2024).

Language allows us to communicate with each other every day, language is an important part of human life. Reading is an important skill for all children and should be developed from an early age, according to(Herlina, 2019)To support this statement,(Maeswaty, 2023)explains that the first two years of primary school are devoted to reading, with an emphasis on basic texts. Children who read independently at a young age tend to have better English skills.

According to Suyanto(Bheni, 2020), first grade elementary school students are said to be in the pre-operational stage. This is characterized by mental operations that begin to combine visuals and words. Therefore, teaching resources that support children's cognitive growth should be presented as part of the fundamental reading learning curriculum. Learning media is defined by Hamalik(Azhar Arsyad, 2016)as a tool, approach, and technique that enhances interaction and communication between teachers and students in the classroom. Learning media used as an aid is expected to help students in early reading comprehension. According to(Andi Prastowo, 2021), learning media is a tool that influences the effectiveness of teaching and learning activities.

The use of learning media is expected to attract attention and make it easier for students to understand the material. In line with this opinion, in(Syafruddin Nurdin, 2016)put forward the advantages of learning media as follows: 1) Interesting learning will attract more students' attention, thereby increasing achievement motivation. Learning materials are explained to ensure student understanding, thus facilitating the achievement of educational goals. 3) Learning methods are more diverse, not only through lectures, but also prevent student boredom. Students are involved in various learning activities, because they not only listen to lectures from teachers but also participate in additional activities such as observing, demonstrating, and acting.

To enhance student understanding and engagement during learning, appropriate media is essential to attract students' attention, prevent boredom, facilitate understanding of the material, and promote an active and conducive learning environment.(Chintya Oktaviani & Risda Amini, 2023)In addition, the Canva application can function as an educational medium for students. Educational media functions to improve teaching and learning activities.(Ratnasari & Ginanjar, 2020)Educational media is a basic element of the education system.(Daryanto et al., 2020). As a result, teachers can pour their own creativity into educational media using the Canva application. Canva is a free online graphic design program that provides illustrations or templates for creating visual content, according to(Sholeh et al., 2020). First graders need to start learning to read and write early so that they are ready for

second grade and beyond. Early reading instruction should use interesting educational media to ensure that students do not experience undue pressure or stress when learning to read. According to(Setiyaningsih et al., 2023), the Canva application is considered very suitable and enhances the online learning experience. In addition to writing, reading, and listening skills, vocabulary mastery is also important.

Various media can be used as learning tools(Amini SK, & Pujiharti, 2021). Media can be used as a means of delivering educational material delivered by teachers to students.(Astuti et al., 2021). Knowing a lot of vocabulary will make it easier for children to speak. The use of flashcard media as one way for educators to facilitate the teaching and learning process(Tarusu & Harun, 2024).

Reading ability is low among first grade students interviewed in an elementary school in Bandung City. First grade teachers discovered this when they gave reading and learning assessments and found that 15 out of 32 students had difficulty reading. This is because teachers do not incorporate media into their lessons to teach students the basics of reading. Teachers still have a lot of power in the classroom, which limits students' freedom and growth. The lack of variety in teaching strategies makes lessons less interesting, which in turn reduces students' enthusiasm and motivation to learn.

There are several alternatives to overcome these challenges. Researchers chose Flashcard media to address the problem of improving the basic reading skills of first grade children in elementary school. Flashcards display words and visuals. Practical, portable, easy to remember, and entertaining, this media has several benefits. Flashcard graphics are intended to engage students and increase their learning motivation. To help students' reading comprehension. Flashcard media can be used to improve vocabulary in the realm of language development. Flashcards are presented to children and read quickly. Articulating that picture cards are a compilation of various images, each functioning as a picture unit that conveys a series of narratives, and can cover many categories, including picture cards(Dra. Lilis Madyawati, 2017)Flashcard media attributes include delivering messages or information related to the images displayed on each card. This presentation of material will make it easier for students to remember the material. The integration of photos and subtitles makes it easier for students to understand concepts and helps identify objects through their visual representation. This flashcard media has advantages and limitations in its application. According to Susilana & Riyana(Rahman & Haryanto, 2014), the benefits of Flashcard media are as follows: 1) Easy to carry because of its compact dimensions. Flashcards can be easily packed in a backpack or pocket, require minimal space, and are suitable for use indoors and outdoors. 2) Practical, in terms of construction and application. Flashcard media is very practical, does not require special skills from teachers and does not require energy to use it. The characteristic of Flashcard media is the presentation of concise messages on each card displayed, so that it is easy to remember. This makes it easier for students to remember the message. The integration of images and text makes it easier for students to understand an idea. 4) Interesting Flashcard media can be used in games. Students compete to identify certain objects or names determined from randomly stored flashcards (Rusdi, 2024).

In addition to its advantages, of course there are disadvantages. The disadvantages of this flash card media are: 1) Images only highlight the visual experience. Item images that are too complicated are less helpful for educational tasks. Its capacity is very limited for large groups.

Researchers must create optimal flashcard media, considering the advantages and limitations, as well as the demands and features of first-grade elementary school students This study aims to: (1) Describe the design of flashcard learning media based on the Canva application for early reading for first grade elementary school students, (2) Describe the flashcard learning media product, and (3) Assess the validity of the developed flashcard learning medias.

METHODS

Type and Design

Richey and Klein's Design and Development (DnD) method was used for development. This model is defined by(Richey et al., 2011)as an analysis of design, development, and evaluation procedures aimed at establishing a factual basis for the production of tools and products, both instructional and non-instructional, and for the improvement or creation of new models. This study uses the DnD model consisting of three steps as described below. Planning involves analyzing the findings and identifying products to be developed in response to identified problems. Production requires the development of instructional media designs that integrate comprehensive data with relevant theoretical frameworks, culminating in a product design that addresses existing challenges. This phase integrates planning and product development. Evaluation requires providing feedback to users of Flashcard learning media(Akbar et al., 2024). The evaluation results can serve as a basis for improving Flashcard learning media.

This research was conducted online with the following research participants:
1) Development Expert
   Media and Information and Communication Technology An expert in elementary school media design, proficient in evaluating media based on aesthetic appeal.
2) Expert in Subject
   Someone who has expertise and mastery in the field of Indonesian language, especially in introductory reading materials.
3) Learning Expert
   An expert in the field of education, especially learning in first grade elementary schools.
   Each participant provided an assessment in the form of a questionnaire measured using a Likert Scale.

Table 1. Likert Scale Assessment Categories

NO	SCORE	CATEGORY
1	5	Very good
2	4	Good
3	3	Quite good
4	2	Not good
5	1	Not good

The design and development process in this study adopted the ADDIE model development steps which consist of five stages, namely analysis, design, development, implementation, and evaluation.(Abdulatif & Muh. Husen Arifin, 2023).

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analysis  ➤  design  ➤  development  ➤  evaluation  ➤  implementation
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Figure 1. ADDIE Model Stages

Data and Data Sources

Data are facts or information used to discuss or determine answers to research questions. Subjects that can be used to collect research data are research data sources. Collections of books, audio, documents, and other printed materials in the library can serve as data sources for researchers.

Table 2. Eligibility Criteria PercentageFlashcard Learning Media Using the Canva Application on Beginner Reading Material Elementary School Students

Achievement Level (%)	Qualification	Notes
86 – 100	Very worthy	No Revision Needed
71 – 85	Worth it	No Revision Needed
56 – 70	Enough	worth revising
41 – 55	Less	worth revising
0 – 40	Totally Unworthy	Revision

Data collection technique

1 Observation: Observing research objects directly.
2 Interview: Talking directly to respondents to obtain information.
3 Questionnaire: Using a question form to collect data.
4 Case Study: Analyzing specific cases to understand phenomena.
5 Document Analysis: Analyzing related documents to obtain information.
6 Experiment: Testing a hypothesis through an experiment.

Survey: Collecting data from respondents through questionnaires or interviews.(Creswell, 2014).

Data analysis
   A. Data Collection (Data Collection)
   • Data Sources: Primary data (surveys, interviews) and secondary data
   • Data Type: Qualitative and quantitative.
   • Tool: Google Form
   B. Data Cleaning (Data Cleaning)
   • Removing duplicate data
   • include missing data (missing values).

- Normalize data if necessary

C. Data Exploration (Data Exploration)

- Descriptive statistics: Mean, median, mode, standard deviation.
- Data visualization: Histogram, boxplot, scatter plot to understand p

D. Data Analysis (Data Analysis)

- Univariate Analysis:Analytic
- Bivariate Analysis:Hub
- Multivariate Analysis:Anal

E. Interpretation and Visualization (Interpretation and Visualization)

- Presenting results in the form of graphs and tables
- Tools: Matplotlib, Seaborn, Tableau, PowerBI.

F. Decision Making (Decision Making)

- Comparing the results of the analysis
- Recommendations based on the data in question

RESULTS AND DISCUSSION

Flashcard learning media in its development goes through three stages, namely the planning, development, and assessment stages. The planning stage begins with analysis to obtain data relevant to the development of educational media. The elements that require analysis are as follows. Seeing the importance of Indonesian language skills, this is because language skills are a model for developing students' intellectual, social, and character abilities (Ina Magdalena et al., 2021).

User analysis was obtained from unstructured online interviews. The information gathered revealed that some educators did not utilize media adequately in their implementation of early reading instruction, resulting in a teacher-centered approach that reduced student engagement and progress. Furthermore, the lack of diverse teaching strategies used by these educators made the lessons less interesting to students, which in turn indicated a lack of enthusiasm and motivation in their learning efforts. The intended users of this educational resource are first grade elementary school children.

Material analysis, the first step taken in analyzing the material is to analyze the source books (teacher books and student books). This refers to the 2013 Curriculum, of course adjusted to the needs and characteristics of grade I students. Based on the results of the analysis, the Basic Competencies (KD) used are as follows.

Table 3. Basic Competencies of Indonesian Language for Grade I Elementary School

Basic competencies	
3.4	Determine vocabulary about body parts and five senses and their care through short texts (in the form of pictures, writing, simple slogans, and/or song lyrics) and environmental exploration.
4.4	Delivering explanations (in the form of pictures and writing) about body parts and the five senses and their

care using Indonesian vocabulary with the help of
regional languages orally
and/or writing.

Media design analysis includes the creation of learning media and the development of learning media designs. Factors that need to be considered in designing flashcard learning media include the selection of fonts, letter and word spacing, color schemes, and media dimensions that are adjusted to the characteristics of first grade elementary school children, as described in the attached table.

Table 4. Flashcard Learning Media Design

NO	Part	Contents
1	Cover	On the cover there is the main title, Flashcard illustrations, and children's illustrations. Study.
2	Instruction	The instructions for use contain the main title, Flashcard description, and steps for activities that can be carried out using Flashcard learning media.
3	The front*Flash card*	On the front of the Flashcards are pages, illustrations of body parts and the five senses, and design resources.
4	Return*Flash card*	On the back of the Flashcard there is an initial reading method with a word method that starts with words, syllables, and letters, as well as design sources.
5	Map	On the Flashcard activity map consists of five activities that are depicted in several forms and must be done by students. This map is equipped with a road as a connection between one activity and another.
6	Mission	The activity mission contains five commands or activities that students must do, presented through card illustrations. held byhands aligned with the Flashcard activity map.

Software and hardware analysis, the software used is the Canva application. The hardware used is a laptop, mouse, and cellphone. The learning media used is flashcard media so that it can facilitate learning to read for beginners

The data from the analysis is used as a reference in making a design for developing learning media. To help the design process, a draft is prepared in the form of a Media Guidelines Outline (GBPM), determining the image illustrations that will be used in the Flashcard learning media, making the layout of the Flashcard learning media, and detailing the contents of the Flashcard learning media.

The development of flashcard media begins with the creation of media content using the Canva application which consists of several designs by determining the design background, type of writing (font), determining image illustrations, determining vocabulary, determining colors, and so on.

The result of the design editing process becomes an initial design on Flashcard learning media that is ready to be evaluated by experts or expert judgment. Based on the assessment

involving 3 experts, it was concluded that Flashcard learning media is very suitable for use in learning activities. This is proven by the results of the expert assessment as follows.

Table 5. Expert Assessment

NO	Assessor	Average	Category
1	Media/ICT Expert	94.3%	Very worthy
2	Expert in Subject	80.2%	Very worthy
3	Learning Expert	94%	Very worthy

The experts not only gave their assessments, but also provided constructive recommendations for the resulting material. These recommendations are shown in the following table.

Table 6. Suggestions from Media/ICT Development Experts

NO	Suggestion	Repair
1	The final result of the learning media is printed using glossy art paper.	Suggestions and input are used as recommendations for the further printing of this Flashcard learning media.

Table 7. Material Expert Assessment

NO	Suggestion	Repair
1	Early reading concepts in media haven't studied yet represents the SAS method	Changing the initial reading method by adjusting
2	The material in the learning media does not yet describe the skills to be achieved according to basic competencies.	Adding activities that can achieve reading skills according to basic competencies by using Flashcard learning media.
3	The concept of the content of the material presented in the learning media does not yet represent the SAS method.	Change the content of the material by adjusting the initial reading method used.

The final result of the Flashcard learning media assessment from experts obtained an average of 91.7% which is included in the "very feasible" category. This means that the learning media created is very feasible to be used in learning activities.

Based on the results of the research that has been conducted. This shows a significant increase in initial reading ability after using flashcard learning media. This is in accordance with the opinion(Gauri et al., 2024) "Flash cards are letter cards, for example, can be used to practice spelling fluently. Cards containing 85 images (objects, animals, letters, symbols, and so on) can be used to train students to spell and enrich vocabulary". One of the positive results is the use of flashcard media that can visualize spelling and enrich vocabulary in early reading. Flashcard media is very interesting for students because using flashcard media can stimulate

students' creativity, train students to be patient in doing something, and train concentration and can also be used in the form of games so that students can learn while playing. so that it can minimize or overcome students' difficulties in early reading. So the researcher concluded that one of the efforts that is thought to be able to improve student learning outcomes, especially in early reading material in Grade I Elementary School Students is the use of flashcard media. Based on the results of research conducted by (Amalia, 2022) with the research title the influence of flashcard media to improve students' reading skills, it was found that the use of flashcard learning media can improve students' reading skills. Based on research (Rahman, B., & Haryanto, 2020) explains that the use of flashcard learning media can improve students' mastery of Indonesian vocabulary.

CONCLUSION

The research conclusion is presented briefly, narratively, and conceptually, describing the research findings and their impact. Avoid using numbering and symbols (dots and numbering).

The following conclusions were obtained from the research results. Flashcard learning media consists of two components, namely the front part which displays pictures of body parts and the back part which contains descriptive text with a word method to help early reading skills. This Flashcard learning media includes a cover page, a card user manual containing descriptions and instructions for use, and a Flashcard activity map. In addition to useful suggestions for media improvement from researchers, expert validity tests showed that the Flashcard learning media was adequate. Validation activities were carried out three times with material experts, once with media experts, and once with learning development experts. On average, the experts rated the Flashcard learning media as "Very Adequate" with a score of 91.7%. Without making any adjustments, the Flashcard learning media is clear enough to teach the basics of reading to first grade Indonesian language students.

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