Card Media Development *Truth or Dare* for Class IV Science and Technology Subjects at UPT SDN 023 Pandau Jaya

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Article Info	Abstract
	This research aims to develop Truth or Dare card learning media and assess its feasibility as well as the response of IV students at UPT SDN 023 Pandau Jaya to science learning. Research and development uses the ADDIE (Analysis, Design, Development, Implementation, Evaluation) model. The data collection instruments used are: Interviews, validation sheets, and questionnaires were used to collect data from teachers and students. The validation results obtained were 87.5% from material experts, 100% from media experts, and 94% from language experts. Based on limited test responses students produced an average of 91.6%. The practicality assessed by the class teacher resulted in an average score of 94% which is included in the "Very Practical" category group. Validation results from language experts, media experts and material experts show that Truth or Dare cards are a "Very Appropriate" learning media. The student response survey revealed that students wereinterested in Truth or Dare cards as a learning medium.

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1. INTRODUCTION

In this era of modernization and global education, Indonesian education is experiencing a period of extraordinary growth, with several changes aimed at improving the quality of education and, by extension, human resources. Learning must include values through exemplary behavior, service and innovation, according to the Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 22 of 2016, Chapter I Point 10. Education in elementary schools is very important for the development of human resources for the next generation (Fitriyani: Mustika , 2021).Creativity, collaboration, problem solving, and self-actualization are some of the goals of the elementary school curriculum. (Mustika at Fitriyani, 2021).

A teacher has an important role in helping their students reach their full academic and personal potential. The roles of teachers as educators and students as learners coexist in the learning process, according to Mustika (2017). The role of educators goes beyond simply providing knowledge, it also includes developing teaching aids, such as learning media. To achieve learning goals through developing learning media, educators must be innovative. Given this, it is clear that educators must be more adaptive and imaginative in lesson planning if they want their students to engage with and retain course content. Learning media refers to tools or platforms that convey information or ideas to evoke emotional, cognitive and behavioral reactions in students when they actively participate in the learning process. As stated by (Nurrita, 2023), teaching materials that utilize learning materials will be very useful for teachers in increasing students' understanding. The use of learning media not only makes the teacher a transmitter of the material, but also actively involves students in learning, increases learning motivation, and overcomes boredom in class (Erfan et al., 2020). Based on the opinions of

experts, it can be concluded that the development of media can help instructors in the classroom and facilitate students' understanding of the course objectives.

Various categories of educational media exist, as stated by (Faujiah et al., 2022) Audio, visual, and audio-visual media are the three main categories of educational resources. Each form of media is important to the educational process. Media like cards *Truth or Dare* is an example of visual-based learning, one of many types of learning materials. Group card games such as "*Truth or Dare*" is one type of group card media. *Truth and Dare* are two variations of this card. There is a question on this card that needs to be answered. Some questions on the Dare cards only require a simple "Yes" or "No" answer. Questions on cards *Truth*, on the other hand, requires an explanation or reason. Card use *Truth or Dare* in the classroom encourages students to share their thoughts and develop their critical thinking skills. The purpose of using card media *Truth or Dare* as a teaching aid is for students to think critically and creatively about a topic, as stated by Herliani (2019).

Currently, primary schools have implemented an independent curriculum in which there is IPAS learning. According to (Wijayanti, Inggit Dyaning, 2023) Explains IPAS learning is an innovation in the independent curriculum that combines the subjects of natural science and social science into one that aims to improve students' literacy and numeracy skills.

Based on the results of interviews at UPT SDN 023 Pandau Jaya with the homeroom teacher of class IV A, The author obtained information that this school has implemented an independent curriculum but it is only applied in certain classes, namely class I and class IV only. During the learning process, specifically in science and science learning, the learning media used are only teaching aids, occasionally the teacher uses media available in the school environment. When implementing learning media, students are enthusiastic about learning, however, this school has many obstacles, one of which is the teacher's limited external material in class. Apart from that, this school still lacks learning media due to a lack of facilities from the school and also the lack of costs for making learning media. Due to the lack of learning media, students are less enthusiastic about participating in the learning process in class.

Another solution to this problem is to create attractive media, such as card media *Truth or Dare*, which can encourage children to take an active role in their own education (Renatha & Rosdiana, 2020) Card *Truth or Dare* can help children to improve their cognitive abilities and increase their ability to communicate their thoughts and feelings, because these cards have questions and challenges related to the topic being studied. Students can use their cognitive abilities to solve problems. These cards can also be played in groups so that students can use their cognitive abilities to solve problems. Students can learn to think critically and generate their own ideas based on their own analysis of the subject matter by using this media.

There are several similarities between this research and other research on the topic of developing Truth or Dare game media in PKN learning for fourth grade students at SD Negeri 1 Air Lesing (Astuti et al., 2022). The development of Truth or Dare question cards on the subject of changes in material conditions for elementary school children is a related research subject (Qitshi, et al., 2023). There have been many studies on the evolution of this medium, but this research is unique. The aim of this project is to create Truth or Dare card media for fourth grade science lessons by developing and testing the validity of the application. New learning experiences can be developed with the help of this research, allowing students to better understand the content provided and maintain attention while they learn. Furthermore, this research has the potential to turn the Truth or Dare materials created by the researchers into learning tools, suitable for use both inside and outside the classroom.

2. METHOD

Development research is used in this research. The R&D process is a methodical strategy for finding answers, gaining knowledge, or creating new things (Rachman Arif et al., 2024). Development research using the ADDIE framework (Analysis, Design, Development, Implementation, and Evaluation) is the aim of this research. The goal of this project is to design

a card game *Truth or Dare* to help class IV students at UPT SDN 023 Pandau Jaya in science subjects. This research was carried out at UPT SD Negeri 023 Pandau Jaya. To assess the quality of the card *Truth or Dare*, development is limited to small groups and only then proceeds to the implementation stage. Information was collected using questionnaires and in-depth interviews. Interviews and questionnaires were used. Quantitative and qualitative data were analyzed in this research. Lestari et al. (2020: 104) provides the following formula, which is used to process expert validation data and student questionnaires:

Information:

$P = \dfrac{\text{Total Score Acquired}}{\text{Acquisition}} \times 100\%$ Max Shoes

P : Average Score 100: Constant

The validation criteria used in the validity of media research are presented in the table 1.1 as follows:

Table 1. 1 Validation Assessment Score

Evaluation Score	Category
4	SV: Very Valid
3	V : Valid
2	KV: Invalid
1	TV : Invalid

Questionnaires sent to teachers and students are used to collect data for practical analysis. Formulas are used to categorize student and teacher answers. Table 1. 2 Practicality Categories

Evaluation Score	Category
5	SP : Very practical
4	P: Practical
3	CP : Quite practical
2	KP : Not practical
1	TP: Not practical

$\text{Average Score} = \dfrac{\text{Total Score Obtained}}{\text{Max Earned Score}} \times 100$

Once the percentage levels are determined, the following practicality criteria can be used to match the results in table 1.3 as follows:

Table 1. 3 Validity Categories

Criteria	Indicator
Not feasible	0% - 20%
Not Worth It	21% - 40%
Decent Enough	41% - 60%
Worth it	61% - 80%
Very Worth It	81% - 100%

Source: Riduwan (in Violadini, 2021)

3. RESULTS AND DISCUSSION

The Truth or Dare card media is the final result of the development process described in this research. Researchers use ADDIE development for card media *Truth or Dare* in class IV at UPT SD Negeri 023 Pandau Jaya for science subjects. Rayanto (2022) states that one method for determining a process where each component can interact with each phase is the ADDIE model. ADDIE Levels Analysis, planning, development, implementation, and assessment constitute the five steps. However, researchers in this research only focused on the implementation stage, which involved working in small groups, and the procedures were as follows:

1. Level of analysis

Before creating card media *Truth or Dare* appropriate to the learner's learning objectives, it is important to conduct a needs analysis to identify any problems that may arise. Needs assessment as stated by Sari and Eko (2020) Research on the nature and origins of learning difficulties requires examination, by country. In line with this opinion, researchers interviewed students to find out their needs.

Currently, researchers are collecting information from students through interviews to find out what they want from card media *Truth or Dare*. It is clear from the interview data that students are looking for new types of learning media that will keep them engaged and not become obsolete. Therefore, researchers proposed a solution that was successful in the eyes of students and the research community in general: creating card media *Truth or Dare* that students can use practically both inside and outside the classroom to help their learning.

Teaching needs assessment. According to researchers' investigations, teachers want effective use of media in the classroom. Because the only resource for instruction in these elementary schools is students' textbooks, workers' ability to memorize course material has a direct influence on students' final exam scores. According to interviews with teachers, teachers have not created innovative learning media that will be taught to students. A teacher must be able to show students the latest innovations in learning media that can attract their attention. Learning media is the next research target for researchers after assessing the needs of students and teachers. Learning media can be defined as anything that allows instructors to convey information to students in a way that interests them, engages their ideas and emotions, and facilitates effective learning (Ain & Mustika, 2021). Observation data shows that students at UPT SD Negeri 023 Pandau Jaya experience difficulties in obtaining learning materials due to the lack of available learning media. Whether used inside or outside the classroom, learning material can be presented and discussed in a more interesting way with the help of interesting learning media, such as cards. *Truth or Dare*, which can help students understand complex concepts better.

2. Design Stage

Drawing up a plan is the next step. The design phase is a creative process in which an item or substance is imagined with the aim of producing a solution to a problem, as stated by Nila and Mustika (2021:413). This phase involves organizing the product design in a way that will form the basis for subsequent stages of development. By using the program *Canva* In a creative approach, the researchers created a Truth or Dare card media design for scientific learning. The researchers then needed to save the card designs *Truth or Dare* from *Canva* in PDF format after all designs had been completed. By following these steps, design the media for the card *Truth or Dare* perfected.

   a. Selection of Learning Media

   Finding appropriate learning resources for the quality of the student and course is the goal of the selection process. Anytime, anywhere, you can choose this learning medium to adapt it to your specific needs by adjusting the analysis of user characteristics, ideas and tasks, as well as distribution strategies. As a result, the final result is a card *Truth or Dare* which is designed to increase students' knowledge and learning activities, in line with scientific learning teaching modules.
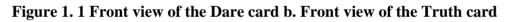
b. Placement of media formats and forms using applications *Canva*
   1. Card Design
   The card design is based on standard playing card dimensions, namely 7 x 9 centimeters, according to product specifications. Both the truth cards (32 cards) and the challenge cards (28 cards) form a sequence of truths with questions on them. That brings the total number of cards to 60. One type of sequence of truth cards has an orange background with a picture of a student on the front, while the other type has a green background and pictures of a teacher and children in a classroom. You can see the design of the card section in the image below.
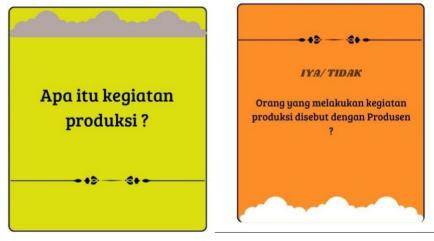
| a. Dare | b. Truth |

Figure 1. 1 Front view of the Dare card b. Front view of the Truth card

Design of cards *Truth or Dare* at the back which contains questions about using fonts *bree serif* found in the Canva application, the color of the text is black.

| a. Back view *Dare* | b. Back view *Truth* |

Figure 1. 2 a. Back view of the Dare card b. Back view of the Truth card

   2. Selection of materials
   The material used to print truth or dare cards is A3 size ivory paper and the answer keys for the cards are printed with HVS paper.
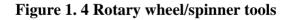
3. Swivel wheel/spinner design

   Presumptuously, the researchers tried using the pics-art and Canva applications. This rotating wheel designs a circle where inside the circle there are three parts, namely truth, dare and turn again. The following is a picture of the rotating wheel.

Figure 1. 3 Rotary Wheels

   The next step, the researchers printed the rotating wheel that had been designed using A4 paper and then printed it *laminating* so that the paper is not easily damaged. After the rotating wheel has been designed, the next step is to make a pole from the rotating wheel using cardboard. To make it more interesting, the researchers covered the card for the rotating wheel pole using purple oil paper. The results of the spinning wheel / *spinner* these are as follows:

Figure 1. 4 Rotary wheel/spinner tools

4. Arrangement and finishing

   Together with Truth *or Dare* consisting of 60 cards, each with its own lesson plan chapter, answer key, and game rules sheet, the drafting stage is an equally important part of creating a high-quality product. The final step is completion, which includes rearranging the packaging and providing a more attractive appearance to the initial card packaging to attract students' interest in using the learning content.

c. development stage (development)

   After card media *Truth or Dare is completed* in the third stage, known as the development stage, then 6 experts in related scientific disciplines will validate the media and conduct small group trials to establish its validity for use.

   According to Nafsiah et al. (2019:29) there are three forms of validation, namely

material, language and design/media validation. In this research, material validation was carried out by two material experts, Mrs. POH and Mrs. Z, involved in developing this media. The validation results obtained a score of 80% in Validation I and 87.5% in Validation II. Two linguists, sir. AEP and sir. ES, involved in developing this media, their average score was 77% in Validation I and 100% in Validation II. And two linguists, sir. L and father. A, involved in the language validation process, average validation obtained 84% in Validation I and 94% in Validation II. With very valid criteria, validation II produced results of 93.67% while validation I produced an average of 80.5%.

Table 1. 4 Validation Results for Overall Card Media Aspects *Truth or Dare*

Rated aspect	Validity Percentage (%)	
	I	T h e
Material	80%	87%
Media	77,5%	100%
Language	84%	94%
Rate – Rate	80,5	93,67

After receiving feedback from media, language, and materials experts, card media *Truth or Dare* refined and piloted with a group of 10 students and instructors.
a) Presentation of data
    Below is presented data obtained from small group trials. This trial was carried out by 10 students. The following are the results of a small group trial questionnaire on card media *Truth or Dare*

Table 1. 5 Results of the small group trial evaluation questionnaire

No	No	Total score	Score maximum	Percentage (%)	Information
1.	EDK	27	45	60	Currently
2.	BUT	45	45	100%	Very Worth it
3.	SR	42	45	93%	Very Worth it
4.	J	42	45	93%	Very Worth it
5.	NPR	40	45	88%	Very Worth it
6.	DMI	41	45	91%	Very Worth it
7.	NAF	45	45	100%	Very Worth it
8.	MPA	45	45	100%	Very Worth it

9.	ZFAS	41	45	91%	Very Worth it
10.	MR	45	45	100%	Very Worth it
Rate-Rata		**413**	**450**	**91,6%**	**Very Worth it**

Source: Researcher Processed Data

Based on the responses given by students, it is known that the overall percentage average is 91.6% with the criteria "Very Eligible".

After card media *Trith or Dare* Tested with small groups of students, after that card media *Truth or Dare* This is put into practice by the teacher. The following are the practical results of card media *Truth or Dare:*

Table 1. 6 Results of the Teacher Practicality Questionnaire

No.	Statement	Score
1.	Relevance of material to TP and ATP	5
2.	The material presented is systematic	4
3.	Accuracy of sentence structure and easy language understood according to student characteristics	5
4.	The material is as formulated	5
5.	The material is appropriate to the student's ability level	5
6.	Attract interest in learning as well as attention from student	5
7.	Learning media is easy to use	4
8.	Learning media is flexible to apply in learning	4
9.	Use of Truth or Dare card media facilitate the learning process	5
10.	Interesting learning media and pleasant	4
Amount		**47**
Rate – Rate		**94%**

Source: Researcher Processed Data

Based on table 1.6 obtained from practitioner, it shows that the average score for the Truth or Dare card media is 94% with the category "Very Appropriate" for use in the learning process.

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media for fourth grade science lessons by developing and testing the validity of the application. New learning experiences can be developed with the help of this research, allowing students to better understand the content provided and maintain attention while they learn. Furthermore, this research has the potential to turn the Truth or Dare materials created by the researchers into learning tools, suitable for use both inside and outside the classroom.

4. CONCLUSION

This research was carried out with card media development activities *Truth or Dare* which starts from the needs analysis stage. At this needs analysis stage, student needs analysis, learning media analysis and teacher needs analysis are carried out. After this, the design stage is carried out, at this stage the stage of selecting learning media and creating media using the application is carried out *canva.* The final stage is the development stage, at this stage material, media and language experts evaluate the cards *Truth or Dare*, which includes collecting questions, materials, and media aspects including language, writing, and color brightness, before testing the card obtained an average validity score of 93.67% based on data obtained from material experts, media experts, and language experts. Thus, card media *Truth or Dare* can be said to be very valid in the "Very Eligible" category. Teachers and students can benefit from Card Media *Truth or Dare* which is produced because of its high quality and practicality.

After card media *Truth or Dare* It was declared valid that the next step was a limited practical trial carried out in class IV UPT SD Negeri 023 Pandau Jaya with 10 students and 1 class teacher as practitioners. From the results of the limited tests carried out, it can be stated that the Truth or Dare card media is very suitable for use with a score of 91.6% and assessed by practitioners with a score of 94% which can be stated that this media is very suitable for use.

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