

## Development of Roulette Spin Media on al-Islam Subjects

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**ABSTRACT:** *The purpose of this research is to determine the validity level of the product in the form of roulette spin learning media that the researcher has made. This research is focused on developing learning media that can attract students' interest in learning, especially in Al-Islam subjects. Learning media can later be used by teachers and students. And helps in communication between teachers and students. This rosette uses the R&D (research and development) research method with a 4D development model namely Define, Design, Development, and Disseminate, but researchers only limit it to the Development stage. The test results obtained are as follows: 1) the material validation test obtains a percentage value of 87% with very high score criteria. 2) the media validation test gets a percentage value of 77.5% with a high score criterion. and 3) student response tests to the roulette spin learning media obtained a percentage value of 86% with very high criteria. Based on the results of the material validation test, media validation, and student responses to the spin roulette learning media for class VIII semester 2 fasting material is feasible to use.*

**Keywords:** *Learning Media, Roulette Spin, Learning Outcome.*

### I. INTRODUCTION

Schools are educational institutions where one of the key activities is the interaction between teachers and students, which facilitates the teaching and learning process. In building a nation, adequate education is essential, as it is a determining factor in producing future generations who are intelligent, creative, and competent in their respective fields (Ashari, R., et al., 2017). According to the Law No. 23 of 2003 on the National Education System, education is defined as a conscious and planned effort to create a learning atmosphere and process that allows students to actively develop their potential, including spiritual strength, self-control, personality, intelligence, noble character, and the skills required in society, the nation, and the state. Education is classified into three categories: formal, informal, and non-formal. The learning process occurs in all forms of education, whether formal, informal, or non-formal (Dewi, O. S. D., et al., 2021).

Basically, the learning process is a system that helps individuals learn, facilitating communication with learning resources and the environment in delivering messages (Sumaryanti, L., et al., 2021; Maryono, M., et al., 2022; Zh et al., 2025). The teacher acts as the sender of the message, while the student is the receiver. Learning is related to how the teacher teaches in the classroom (Koriati, E. D., et al., 2021), and the teacher functions as a guide for students in conducting the learning

process (Nurjan, S., & Syam, A. R., 2021). In delivering messages and lesson content, teachers can use teaching media that will help enhance the effectiveness of the learning process (Ikhwan, A., et al., 2022). Media refers to anything that can be used to convey messages from the sender to the receiver (Fadhli, M., 2016; Fadhli, M., 2016), and it can stimulate students' thoughts, emotions, feelings, and attention (Fadhli, M., 2022). Furthermore, the learning process can motivate students to study more effectively and independently (Kuswandi, D., & Fadhli, M., 2022). Utilizing teaching media should be an area of focus for teachers as facilitators in all learning processes (Fadhli, M., et al., 2022). Therefore, teachers must learn how to utilize the surrounding environment or select appropriate teaching media to optimize the achievement of learning objectives during the teaching process (Puspitasari, I., 2019).

On the other hand, the reality is that many teachers still neglect the use of media for various reasons (Zh et al., 2024). Common reasons include: limited time to prepare for teaching, difficulty in finding appropriate media, and lack of funding (Sari, E., et al., 2019; Subandi, S. P., et al., 2022). With the ongoing development and advancement of the era, which continually influences the progress of technology and knowledge tailored to the needs and demands of society (Sunaryo, S. A., et al., 2021; Ikhwan, A., et al., 2020), the technology developed is diverse, including biotechnology, multimedia technology, and communication technology (Waluyo, B., 2021). This allows teachers to choose whether to utilize technological assistance or the surrounding environment to create teaching media (Syam, A. R., 2019). Educational media can assist and facilitate teachers in conducting teaching and learning activities in the classroom, one example being the use of three-dimensional media (Cahyono, H., et al., 2022).

Three-dimensional media refers to a group of media without projection, which is evaluated visually in three dimensions. This group of media can be in the form of real objects, both living and non-living, and can also represent replicas of the original objects (Zubaidi, A. & Lidyawati, R., 2013). Simple three-dimensional media have several advantages, including: (a) providing direct experience; (b) presenting in a concrete manner; (c) demonstrating the object as a whole, including its construction and function; (d) showing the organizational structure clearly; and (e) demonstrating the root of a process clearly (Sulton, S., et al., 2019). However, three-dimensional media also have disadvantages, such as being unable to reach a large audience, requiring significant storage space, and being difficult to maintain. Researchers have sought solutions to address these weaknesses. By using a roulette spin media, it can be used either individually or in groups, where participants spin the roulette and answer questions based on the color they land on. This allows one roulette to reach up to 20 participants. To avoid requiring large storage space and being difficult to maintain, the researcher intentionally created a smaller-sized three-dimensional media, making it easier to store and maintain the media used (Utami, P. S., & Fadhli, M., 2020).

This research focuses on the development of learning media that can attract students' interest, especially in the subject of Al-Islam. The learning media that will be used by both teachers and students aims to facilitate communication between them. The media in question is a roulette spin learning media. The word "roulette" itself comes from the French language, meaning "small wheel," referring to a small wheel that players spin in one direction. Roulette, or "rolet," originates

from a spinning wheel game or smart wheel (Sunardin, S., 2022). The roulette media is a creative and innovative tool that offers several benefits, including: 1) it is easy to create and use, 2) it increases students' interest due to its use of different color variations, 3) it encourages students to actively participate in the learning process, 4) students can engage in the learning, and 5) the teaching and learning activities are not monotonous or boring for the students (Sunardin, S., 2022).

## II. METHODOLOGY

This research uses the Research and Development (R&D) method, which is known as the research and development method. Research and development is a research method used to produce specific products and test the effectiveness of these products (Mukholifah, M., et.al., 2020; Zh et al., 2022). In this study, the product developed is a roulette media for learning Al-Islam, specifically on the topic of fasting. The research model used is the 4D model, which was developed by Thiagarajan (Hikmah, N., 2019). The 4D model consists of four stages: define, design, development, and disseminate (Sutrisno, S., & Puspitasari, H., 2021). However, in this study, the researcher only used the development stage.

In the define stage, the researcher conducted an analysis of students from SMP Muhammadiyah 18 Surabaya. This included analyzing the curriculum, the media used during the research, and the characteristics of the students. In the design stage, the researcher began developing the learning media. The materials and tools used included markers, pens, pencils, erasers, rulers, cardboard, buffalo paper (light blue, green, yellow, and red), Pavinol glue, hot glue, G glue, HVS paper (1 sheet), scissors, cutters, brushes, and Aga paint. In the development stage, the researcher carried out validation processes, with one validator for the roulette media, one validator for the content, and an evaluation of the feasibility from the students. The results of the media roulette spin validation, content validation, and student feasibility assessments were then presented as percentages using the following formula:

$$P = \frac{\text{Actual Score}}{\text{Ideal Score}} \times 100\% =$$

P : Percentage

Actual Score : Scores given by validators or experts

Ideal Score : The maximum score is the product of the number of items and the maximum score for each item.

Table 1. Validation Test Categories

Score	Criteria
81-100%	Very High
61-80%	High
41-60%	Adequate

21-40%	Low
0-20%	Very Low

Based on Table 1, if the score is  $\geq 60\%$ , the roulette spin media is considered feasible for use and will be revised according to the suggestions provided by the media validator and the material validator. It will then be tested on students to obtain their responses to the roulette spin media. The researcher limits the study to the development stage and does not proceed to the dissemination stage due to certain limitations (Sundari, L. R., et al., 2018).

### III. RESULT AND DISCUSSION

The final result of this research and development is a three-dimensional learning media called the roulette spin. During the design stage, the researcher began creating the learning media using various tools and materials, including markers, pens, pencils, erasers, rulers, cardboard, buffalo paper (in light blue, green, yellow, red, and brown), Pavinol glue, hot glue, G glue, one sheet of HVS paper, scissors, a cutter, brushes, and Aga paint. The following are the steps for creating the roulette spin learning media:

Figure 1 Cutting the Roulette Spin Circle.



Figure 2 Dividing the Cardboard Circle into Eight Sections.



Figure 3 Cutting and Attaching Buffalo Paper to the Sectors of the Circle.



Figure 4 Installing the Wheel Axis and Creating the Axis Support.



Figure 5 Creating the Question Cards.

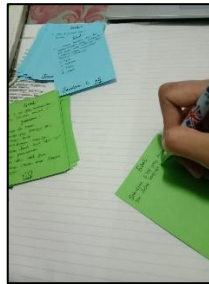


Figure 6 Installing the Question Card Holder.



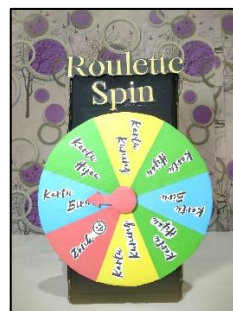
Figure 7 Installation of Game Rules and Point Rules.



Figure 8 Roulette Spin Media Name Installation.



Figure 9 Final Media Results.



The roulette spin learning media uses material on fasting for Grade VIII students of SMP/MTs for the even semester, based on the revised K13 curriculum. The questions are divided into three levels of difficulty: easy, moderate, and difficult. Validation was then conducted to assess the feasibility of the roulette spin learning media. The media validation process was carried out by a lecturer from the Islamic Studies Program at Universitas Muhammadiyah Surabaya, Dr. Ika Puspitasari, M.Pd.I, using a validation sheet containing 16 aspects across 2 indicators. Material validation was conducted by a teacher of Islamic Religious Education at SMP Muhammadiyah 18 Surabaya, Ustadz Hasbiyallah, S.Pd.I, using a validation sheet containing 17 aspects across 2 indicators.

Table 2: Material Validation Results

No	Aspect	Ideal Score	Actual Score
1	Material Engineering Aspect	60	52
2	Implementation Aspect	10	9
Total Score		70	61

$$P = \frac{61}{70} \times 100\% = 87\%$$

In the material validation, a percentage of 87% was obtained. This percentage indicates a very high level of approval regarding the material or questions presented in the roulette spin learning media. The validator evaluated the media based on two aspects: the material engineering aspect and the feasibility aspect. The validation of the roulette spin learning media was then assessed by Dr. Ika Puspitasari, M.Pd.I, a lecturer from the Islamic Education Program at Universitas Muhammadiyah Surabaya. The validation process was carried out by administering a validation questionnaire consisting of two aspects: media engineering and visual communication aspects. The media engineering aspect included six indicators: creativity in developing learning media, maintainability (easy to maintain and manage), usability (easy to use and simple to operate), clear and understandable usage instructions, reusability (can be used again), and alignment of the media with the material. The visual communication aspect consisted of ten indicators: communicativeness (language is easy to understand), media size, clarity of text in the media, font size consistency, correct placement of numbers in the media, appropriate number size, color composition in the media, color harmony, neatness of design, and layout arrangement. Each indicator had a highest score of 5 and a lowest score of 1. The results of the roulette spin media validation are presented in Table 3 below:

Table 3. Media Validation Results

No	Aspect	Ideal Score	Actual Score
1	Media Engineering Aspect	30	25
2	Visual Communication Aspect	50	37
Total Score		80	62

$$P = \frac{62}{80} \times 100\% = 77.5\%$$

In the media validation, a percentage of 77.5% was obtained. This percentage indicates a high level of approval regarding the creation and use of the media. After conducting the validity test and receiving validation results from the material validator, the researcher proceeded with the revision stage based on the suggestions found in the validation questionnaire from the material validator. These suggestions served as guidelines to improve the roulette spin learning media before it was submitted to the media expert validator. In the material validation assessment, the validator provided revisions or suggestions for improvement on the variation of questions, namely: 1) multiple-choice questions or others should be accompanied by images, 2) moderate-level



questions should be designed for completion, and 3) difficult questions could consist of explanations, literacy, or numeracy (AKM).

Figure 1 Problem Cards Before Revision.

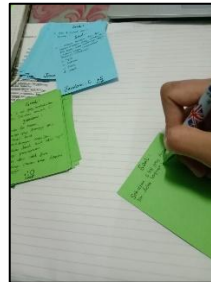


Figure 2 Improvement of Easy Problem Cards.



Figure 3 Medium Problem Card Revision.



Figure 4 Repairing Difficult Question Cards.



in addition to the revisions from the material validator, the researcher also received revisions or suggestions from the media validator. The suggestions provided by the validator related to the clarity of the text in the media, which was deemed insufficient. The recommended font was Times New Roman with a larger size. However, due to the limitations of the Canva application used for text editing, which does not have the Times New Roman font available, the researcher opted for a font that is clearly visible instead.

Figure 1 Text in the Media Before Revision

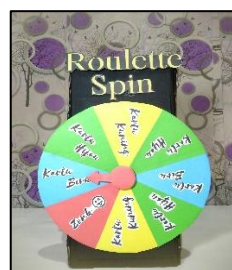


Figure 2 Improvement of Text in the Media.



After obtaining the results of the material validation, media validation, and completing the revisions based on the suggestions from the validators, the researcher proceeded with a trial test to assess students' responses to the roulette spin learning media. The trial was conducted on

Wednesday, February 1, 2023, in Grade VIII at SMP Muhammadiyah 18 Surabaya with 9 students. During the trial, the researcher distributed a media assessment questionnaire that was developed, which was evaluated from three aspects: media engineering with 5 indicators, learning aspects with 5 indicators, and visual communication aspects with 7 indicators. Based on the results of the trial assessment, the following recap was obtained:

Table 4. Results of Students' Response Assessment

No	Aspect	Ideal Score	Actual Score
1	Media Engineering Aspect	225	192
2	Learning Aspect	225	208
3	Visual Communication Aspect	315	261
Total Score		765	661

$$AP = \frac{661}{765} \times 100\% = 86\%$$

In the student response assessment, a percentage of 86% was obtained. This percentage indicates a very high level of approval regarding media engineering, learning aspects, and visual communication. In the students' assessment of the roulette spin learning media, there were no comments or suggestions, and thus, the researcher did not make any revisions. The percentage given by the material validator, 87%, also indicated a very high level of approval. The media validator provided a percentage of 77.5%, indicating a high level of validation. Meanwhile, the students' response assessment to the roulette spin learning media achieved a percentage of 86%, signifying a very high level of approval. The roulette spin media was found to increase students' learning interest and make the learning process more enjoyable, as it actively involved students during the learning activities. This is supported by comments written by students in the comment and suggestion section of the response questionnaire.

#### IV. CONCLUSION

The results of this study indicate that the roulette spin learning media is categorized as feasible, with a material validation percentage of 87%, indicating a very high level; a media validation percentage of 77.5%, indicating a high level; and a student response percentage of 86%, also indicating a very high level. Thus, the results of the material validation, media validation, and student responses to the roulette spin learning media on the topic of fasting suggest that it is suitable for use by teachers in the learning process and can serve as a reference for the use of learning media.



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