Snake and Ladder Game Integrated with Asmaul-husna: Development of Learning Media

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Abstract. This study aims to determine the attractiveness, feasibility, and response of students in using snake ladder game media integrated with asmaul husna on the theme of animal and human movement organs. The development research method adapted to the Borg and Gall model using seven steps: potential problems, data collection, product design, product validation, product revision, product trials, and product revision. Data collection tools used is the material expert questionnaire, media expert questionnaire and educator response questionnaire to determine product feasibility, and questionnaire responses of students to find out the attractiveness of the product. The results of the research that have been developed obtain a percentage of the feasibility of 92% by material experts, 90% by media experts, and 89% by educators. The percentage of participants' responses to product attractiveness gained 92%. Based on the results of the description above, the products developed by researchers are suitable for use as learning media.

1. Introduction

Education has an important role in technology development in the modern era [1]. Technology plays a role in facilitating more innovative educational methods [2]. The role of education that is important in advancing the nation and state is regulated in Constitution Number 20 of 2003 article 3, concerning the national education system regarding the purpose and function of education [3]. The purpose of education is to shape the character and explore the potential contained in students, one of which is to form noble morals and fear God Almighty by integrating Islamic values in learning. Madrasah education institutions that develop the integration of science into Islamic values [4]. Integration aims to form students who have good morals and intellectuals. Learning is a combination composed of human elements, materials, facilities, equipment and procedures that influence each other in achieving learning objectives. Learning media is used as a tool to convey information to be well received by students. Learning media can make learning atmosphere fun[ 5]. In the 2013 curriculum, students become learning centers.

Learning based on the 2013 curriculum is a learning that combines various subjects into several themes or often called integrated thematic [6]. The important role in the formation of students' character is in the cognitive, affective and psychomotor aspects [7].

Developing students' thinking skills can be done by using learning media. The role of learning media is very important so that it creates a fun and non-saturating learning atmosphere. From the observations that researchers did in MIN 2 Bandar Lampung, MIN 8 Bandar Lampung and MI Ismaria Al Qur’aniyyah there were several students who did not pay attention to and did not understand the subject matter and were less interested in learning, so students were easily bored in the classroom because the learning
media used is only in the printed books. The constraints faced by students are the lack of attractive and innovative media used by educators in the learning process [8].

The learning media innovation used must also be adjusted to the needs of students who love to play. Playing can also develop aspects inside the children, such as physical, social-emotional and cognitive aspects [9]. The game can be used as a learning media, one of them is snake and ladder games. In the realm of education, snake and ladder games can be used as learning media. The advantage of snakes and ladders media is that it can increase students' motivation and snake ladder games can shape attitudes and skills through group collaboration.

From the description above, the researcher wants to develop a snake and ladder game learning media that is used as a tool that can be used by educators in the learning process so that it motivates students more in learning and creates an enjoyable learning atmosphere, then the researchers conducted the development of snake ladder game media integrated with asmaul husna on the theme of the movement of animals and humans. The purpose of this research is to know the feasibility of snake and ladder game media, integrated with asmaul husna on the theme of animal and human movement organs by material experts, media experts, and educators. And also know the students' response to media attractiveness.

2. Theory

Media according to experts can be defined as follows: learning media is a tool used by the teacher to convey the subject matter to students [10]. According to Sudjana & Rivai, learning media can be used to improve student learning processes, which are expected to enhance learning outcomes achieved [11]. Rossi and Breidie in Sanjaya suggested that learning media are all tools and materials that can be used to achieve educational goals [12]. Based on the opinions of the experts above it can be concluded that the media is everything that is done by educators to convey messages or information to students so that they can understand the material and make it easier for educators to explain a material more effectively. The media functions as a tool or means in achieving a learning goal [13].

Sadiman expressed his opinion on the meaning of the game, according to him, games are every contest between players who interact with each other by following certain rules to achieve certain goals too [14]. According to Conny R. Semiyawan, as quoted by Sabil Risaldy, playing is an activity that is chosen by the child because it is fun, not because of gifts or praise [15]. Through playing media, various aspects can be improved and learners can explore to strengthen things that have been known and discover new things. On the other hand, it can develop all of its potentials optimally, both physical and mental intellectual and spiritual potential. So that, playing for early childhood is a bridge for the development of all aspects. Learning is playing, playing is learning. Children prefer a free atmosphere without any pressure, interact with friends, and play. According to Sadiman, the game is a role between players who interact with each other by following certain rules [16]. The game is the initial capital for fostering children's mental and emotional intelligence, so the way and pattern of play that is applied in learning will have a positive effect on the growth of children's intelligence and emotional. The game creates a learning atmosphere to be fun, happy, relaxed but still has a conducive learning atmosphere. By playing, many abilities/ skills can be practiced repeatedly so that they can be mastered well.

Snake and ladder are a type of game made of boards used by children and played by two or more people [17]. Snakes and ladders games are included in the board game or board game categories that are similar to the game monopoly, halma, ludo. Ladder snakes are games that use dice to determine how many steps a piece has to go through. Snakes and ladders games are traditional games with tools that use dice in the game. Mukh explained that there is an interaction between learning styles and creativity towards cognitive and affective achievement by using the snake and ladder game media [18].

According to the experts above, the writer can conclude that snakes and ladders are traditional games played by two or more people. researchers try to arouse children's interest in traditional games and develop interesting and innovative media as a game medium and as a learning tool.

Integration can be interpreted as a renewal to become a whole or rounded entity. The foundation of Islam has a philosophical foundation on the unity of knowledge. Bambang believes that the basis of the principle of integration of science, everything comes from God, then all are in unity. Based on the opinions of experts it can be concluded that integration is integrating science into unity. One way to help humans on the way to God is science, so science is considered valuable. Someone who has knowledge
has the ability to develop an Islamic community and realize the goal of Islamic learning that is to uphold Muslim civilization [19].

Integration of religious and general science was formed due to the inclusion of the idea of renewal. It is the inclusion of two knowledge in educational institutions that integrate religious and general sciences, one of which is madrasa. At the time of learning educators use the opportunity to convey material in thematic learning, then in certain parts that have links to Islamic values should also instill Islamic values so that learning objectives and educational goals in madrassas to educate students to become cautious Muslims are easily achieved.

The resulting product is a learning medium for snake and ladder games that is adjusted to learning on the theme of the movement of animals and humans, which the writer integrates with asmaul husna. some descriptions of product specifications include: snake ladder game media developed according to the characteristics of learning media in the form of visual media in the form of printing with a size of 40cm x 40cm developed with a variety of colors that can motivate students in the teaching and learning process. The snake ladder game consists of several elements including game boards, dice, pawns, cards containing questions, science cards, bonus cards, surprise questions, and zonk cards.

In the snake ladder game, there are 100 cards consisting of several cards, including bonus cards, zonk cards, surprise questions, and question cards. To get a card, the player must draw the dice and play in the column obtained, then the player can open the card according to the column number obtained. The snake ladder game is equipped with a way of playing and there are various kinds of cards that each card has several questions. If the player answers correctly, he can advance to the next box and if he is wrong, he stays in the box until he waits for his turn to draw the dice. The material in the game snake and ladder is about the theme of the organ of movement of animals and humans which is integrated with the asmaul husna. media game development is focused on the theme of the organ of animal and human movement and the integration of the asmaul husna, as an addition to knowledge so that pesetas learn to know the asmaul husna contained in each card.

3. Research methods

The research used by researchers is the Research and Development method. Research according to Borg and Gall has ten steps of development [20]. Researchers only use seven steps that assess students' response to the media developed. Research and development methods are research methods that produce and test product effectiveness [21].

The research step starts from the first, which is seeing the potential problems and knowing the problems. The second step is the data collected by observation and interviews with educators, product validation carried out by two material experts and two media experts and three educator experts, revising the product according to the experts’ advice, the product testing and product revision. The subjects of
this study were the experts, the educators, and the students. The study was conducted at three educational institutions, it is MIN 8 Bandar Lampung, MIN 2 Bandar Lampung and MI Ismaria Al Qur’aniyyah Bandar Lampung. Data collection techniques using questionnaires were analyzed using a Likert Scale.

Table 1 Criteria of Validation

| Average  | Criteria of validation     |
|----------|---------------------------|
| 4.21 ≤ μ ≤ 5.00 | Very Valid                |
| 3.41 ≤ μ ≤ 4.20 | Valid, no revision needed |
| 2.61 ≤ μ ≤ 3.40 | Valid Enough, need revision |
| 1.80 ≤ μ ≤ 2.60 | Less Valid, need revision |
| 1.00 ≤ μ ≤ 1.80 | Not Valid, overall revision |

Table 2 Interpretation of the score of the validation questionnaire [22]

| Percentage (%) | Criteria of Appropriation                  |
|----------------|--------------------------------------------|
| 81-100         | Very appropriate, no revision needed       |
| 61-80          | Appropriate, no revision needed            |
| 41-60          | Almost appropriate, need revision          |
| 21-40          | Not appropriate, need revision             |
| 0-20i          | Very not appropriate, overall revision     |

Table 3 Interpretation of student response questionnaire scores

| Presentase (%) | Criteria of Attractiveness                  |
|----------------|--------------------------------------------|
| 81-100         | Very Interesting/Very Good                 |
| 61-80          | Interesting/Good                           |
| 41-60          | Almost Attractive/Almost Good              |
| 21-40          | Less Attractive                            |
| 0-20i          | Not Attractive/Not Good                    |

4. Results and discussion

The results of research and development of snakes and ladder game media integrated with asmaul husna on the theme of animal and human movement organs were validated by 2 material experts, 2 media experts and 3 educators. After product validation, the next step was the revision of the product design and trial to students in three educational institutions, they are MIN 8 Bandar Lampung, MIN 2 Bandar Lampung and MI Ismaria Al Qur’aniyyah Bandar Lampung.

4.1 Feasibility of Snake and Ladder Game

Validation is done by experts, aiming to assess the feasibility of the product that has been developed. This step is intended to assess the product, the assessment is carried out by material experts, media experts, and educators. Material validation was carried out by two experts in their fields. This step is intended to assess the products based on the advice of material experts. In media validation there are three aspects that are assessed, they are aspects of content feasibility, the feasibility of presentation and contextual assessment. In the aspect of content feasibility, there are several indicators, including suitability of the material with Basic Competence, material accuracy, material updates and material strength in encouraging curiosity. In the aspect of presentation feasibility, there are several indicators, including presentation techniques, supporting presentation and presentation of learning. The contextual assessment aspects are indicators of contextual nature.

Table 4 aspect of material expert validation

| Criteria       | Indicator                           |
|----------------|-------------------------------------|
| Feasibility of | Suitability of the material with     |
| The content    | Basic Competence                    |
In the graph above, the validation that was carried out by two material experts obtained a percentage in the aspect of the feasibility of content 90%, the percentage of presentation aspect 92.5% and percentage of contextual aspects 100%. Then the total percentage of the two material experts is 92% with very appropriate criteria.

Media expert validation was carried out by two media experts. In the assessment of products by media experts, there are several aspects of assessment, including aspects of media efficiency, media accuracy, aesthetics, media resilience and safety for students.

| Table 5 Aspects of Media Expert Validation |
|--------------------------------------------|
| Aspect of assessment | Question Number | Number of Question |
| Media Efficiency     | 1,2,3,4         | 4                   |
| Media Accuracy       | 5,6,7,8         | 4                   |
| Aesthetics           | 9,10,11,12,13   | 5                   |
| Media Durability     | 14              | 1                   |
| Safety of Use by Students | 15         | 1                   |
| **Jumlah**           |                 | 15                  |

In the picture above, there are two aspects in media assessment, namely aspects of learning material and aspects of media feasibility. Validation was carried out by two media experts and obtained a percentage in the aspect of media efficiency 85%, the percentage of media accuracy 93%, aesthetics 92%, media resistance 90%, and safety of use by students 90%. The overall percentage of media validation is 90% with very appropriate criteria.

Educator's assessment of the product is carried out by three educators, with two aspects of assessment, they are the aspect of learning material and aspect of media feasibility. In the aspect of learning material, there are two indicators, material suitability, and actuality. In the media feasibility
aspect, there are four indicators, they are completeness and quality of materials, ease of understanding, clarity, and giving feedback.

Table 6 Aspect of Educator’s Assessment

| Criteria                                      | Indicator                                |
|-----------------------------------------------|------------------------------------------|
| Aspect of learning material                   | Material suitability                      |
|                                               | Actuality                                |
| The aspect of media feasibility               | Completeness and quality of materials   |
|                                               | Ease of understanding                     |
|                                               | Clarity                                  |
|                                               | Giving feedback                          |

Feasibility assessed by three educators gained a percentage: in the learning aspect 93% and 87% for media feasibility aspect. The overall percentage of feasibility assessment from three educators obtained 89% with the media criteria very suitable for use.

4.2 Students’ Responses

Limited trials were conducted to obtain an overview of the quality of learning media that had been developed. The limited trial was carried out for the fifth-grade students at MIN 8 Bandar Lampung in the amount of 10 people. There are several aspects of assessment in evaluating students' responses to media interest, including aspects of interest, material aspects and aspects of language.

The trial results are limited to several aspects, namely aspects of interest, material aspects and aspects of language. In the aspect of interest, the percentage gained 88%, material aspects get 91%, language aspects get 93%. Based on the percentage in each of these aspects, the overall percentage was 89% and stated that the media was very interesting/very good.

Large-scale trials were carried out on fifth-grade students in MIN 2 Bandar Lampung, MIN 8 Bandar Lampung and MI Ismaria Al Qur’aniyyah Bandar Lampung with a total of 91 people. In the aspect of interest, the percentage gained 91%, the material aspect gained 93%, the language aspect gained 92%. Based on the percentage in each of these aspects, the overall percentage was 92% and stated that the media was very interesting/very good.

From the results of limited-scale product trials and large-scale trials to obtain tabulation comparisons of the trial of snake and ladder game media products, the results can be seen in the following diagram:
Based on the diagram, it can be seen that the limited scale product trial on the snake and ladder game media integrated with *asmaul husna* on the theme of human and animal movement organs gets 89% with very appropriate criteria, and on a large scale trial has an increase by 92% and fulfilling very interesting/very good criteria.

5. **Conclusion**

Snake and ladder game media integrated with *asmaul husna* on the theme of animal and human movement organs have been validated by several experts. The percentage of media experts gained 90%, from material experts obtained 92%, and the assessment of educators gained 89%. Therefore, the snake ladder game media integrated with *asmaul husna* on the theme of animal and human movement organs are declared to be very suitable for use. The trial was carried out with limited trials and large-scale trials. The limited trial was conducted on 10 students and obtained 89%, while a large-scale trial was carried out on 91 students from three Islamic elementary schools, they are MIN 2 Bandar Lampung, MIN 8 Bandar Lampung and MI Ismaria Al Qur'aniyyah Bandar Lampung and received percentage 92%, with very interesting/very good categories. So that, the snake and ladder game media integrated with *asmaul husna* on the theme of animal and human movement organs are declared very needed and greatly contribute as a support in the learning process.

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