



Monopoly Game as A Science Learning Media for Junior High School; A Validity Analysis

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ABSTRACT

Learning media is important as a means of delivering information to students. Media is not only interesting in terms of content, but also able to adjust to the characteristics of students. This study aims to reveal the validity of science learning media in the form of a monopoly game. This research uses descriptive analysis method. This research involved experts to assess the learning media being developed, namely content experts, media experts, and language experts. The instrument used in this research is a validation sheet. Data were collected through expert assessment questionnaires (as validators). Data analysis in the form of numerical values is done quantitatively, while comments or suggestions are done qualitatively. The results showed that the media was valid. Further tests were carried out, to assess the effectiveness of the media, so as to reveal more feasibility of the media.

INTRODUCTION

Learning media is one of the essential elements of learning. Ramdhani and Muhammadiyah (2015) explain that media is a tool or intermediary that streamlines communication and interaction. When associated with learning, the media can help deliver information from educators to students. In addition to helping provide information, learning media can also stimulate the participation of students (Hasan et al., 2021).

Various learning media can be used to maximize the delivery of information. Arsyad (2016) distinguishes learning media into several groups, namely print, visual, audio visual, and computer-based media. In addition, learning media can also be individual and group media (Jannah, 2009). Then, learning media can also be developed by carrying out games so that the term educational game media will be known. Game media has several benefits, including building a pleasant learning atmosphere, building enthusiasm for learning, and helping learning completeness (Ardhani et al., 2012; Prayogo, 2017).

Currently, many media are used in learning, including game-based learning media (games). Among them are learning media for mofin games (Peranti, et al., 2019), Ular Tangga (Zuhriyah,

2020), Uno games (Ulfah, et al., 2021), and Ludo games (Izzaty & Nurfitriani, 2021). These various forms of media development indicate an effort to build innovative and fun learning (Jais, 2019). This fun learning will help achieve learning objectives to the maximum (Trinova, 2012). Monopoly game media is one with good potential in the classroom. Ulafaeni (2017), in his research, stated that monoergy (Energy monopoly) as science media could improve understanding of science. Besides, monopoly as a medium in the digestive system can create student activeness stimulus (Ulfa & Rozalina, 2019). Monopoly science learning media is stated to be very valid as a learning media on solar system material (Lailiyah et al., 2021).

Monopoly is a familiar game that can be developed into a learning medium. This game can be played by 2 to 4 players. So, it is classified as a group-based learning media (Jannah, 2009). The familiarity also makes the game playable and combined with educational elements. The research in Table 1 shows that the monopoly game can be developed as a learning medium that becomes an intermediary for teachers in delivering their lessons.

Meanwhile, this research tries to develop monopoly as a science learning media on human movement system material. Specifications; the media is made with a box board, equipped with character pawns, question cards, coins as rewards, and playing rules and answer keys. The game is designed to be played by students in order to build a fun learning atmosphere. Efforts to build fun learning are part of important pedagogical competencies (Sum & Taran, 2020). Ultimately, such an atmosphere will affect students' interest in learning (Ritongga and Shahiba, 2020).

A Validity Test is needed for the media to be used in learning. This test can be carried out to experts who are competent in their fields (Sugiyono, 2013). The product can be said to be valid if validity has been carried out in terms of material, language, and presentation (Trianto, 2010). Therefore, this research will reveal the validity of science learning media in the form of monopoly games. The study's results are hoped to contribute to developing science learning in the classroom.

RESEARCH METHODS

Research Approach

This research uses the descriptive analysis method. Sudijono (2012) says that descriptive statistics are carried out to analyze data clearly, concisely, and regularly to obtain meaning for an event or situation. The data in this assessment is obtained through an expert review of learning media in the form of a monopoly game. As explained by Sugiyono (2013), validity can be done by experts. The assessment is done quantitatively and qualitatively through suggestions and input for media improvement.

Research Participants

This research involves experts to assess the developed learning media (expert review). They consist of 3 experts: content, media, and language experts. Experts provide assessments and suggestions for media perfection.

Research Instruments

The instrument used in this research is a validation sheet. The instrument is addressed to content experts, media experts, and linguists. The following is the media validation instrument grid:

Table 2. Media validation instrument grid

No.	Validation Aspects	Measurement Aspects
1	Content	Suitability of material Completeness of material Ease of understanding the material Systematization of material preparation Evaluation aspect
2	Media	Efficiency Accuracy of media selection Maintainable Usability Communicative Presentation (image, color, design)
3	Language	Typography Use of grammar Accuracy of term usage

Data Collection

The data in this study is primary data. Data is collected directly from the data source, experts who assess the media. Data is obtained through validation instruments (content, media, and language).

Data Analysis

Data analysis was carried out descriptively. The assessment obtained by the expert was calculated using the following formula.

$$Value = \frac{Score\ obtained}{Maximum\ score} \times 100$$

The value will be adjusted to the validity criteria (Table 3). This will show the validity of the media in terms of content, media, and language. In addition, data analysis was also carried out by taking into account expert input or suggestions. Suggestions can be in the form of instructions to add or improve items in the developed learning media. The Criteria of Product Validity can be seen in the following table (Riduwan, 2009)

Table 3. Criteria of product validity

Percentage (%)	Category
81 – 100	Very Valid
61 – 80	Valid
41 – 60	Fairly Valid
21 – 40	Less Valid
0 - 20	Not Valid

RESULTS AND DISCUSSION

Result

The learning media was developed from a monopoly game quite familiar in the community. The media validity test was conducted on three experts, including material, media, and language experts (Table 4).

Table 4. Results of the validity media in the form of the monopoly game

No.	Validity	Assessments Results (%)	Category
1	Content Expert	79	Valid
2	Media Expert	78	Valid
3	Language Expert	69	Valid
	Average	75,3	Valid

In addition to providing quantitative assessments, experts also provide qualitative assessments in the form of suggestions or input for media improvement.

Table 5. Expert feedback on the media

No.	Validity	Feedback
1	Content Expert	Variety of material information on the media
2	Media Expert	Improve media visualization
3	Language Expert	Use appropriate grammar rules

Discussion

Media is one of the essential elements in learning. Media is an intermediary between the source and receiver of information (Arsyad, 2013). For information to be conveyed properly and maximally, the media selection must also be done correctly. The selection of learning media that is done well will ultimately affect the learning that is carried out (Abidin, 2017).

Based on the data in Table 2, it can be seen that the science learning media in the form of a monopoly game is categorized as valid in terms of material, media, and language. Each expert assessed 79, 78, and 69, all at the valid category level. The average calculation results also show that the media is categorized as valid.

The feedback given by the expert becomes the basis for making improvements to the learning media. The media was developed by paying attention to the suitability of grade VII science material. Because of the different levels of education, the depth of science material at that level is also different. Material information is presented in the form of questions that students can answer while playing. The form of information in the form of questions is essential in honing students' critical thinking skills (Dewi, 2022).

This game media is also developed with representative images. The use of images can help improve learning outcomes (Utami, 2020), stimulate students' interest in reading (Mirnawati, 2020), and help students understand the concepts of science lessons (Aen & Kuswendi, 2020). In addition, media development also pays attention to good and correct language rules. Because learning media must be prepared using language that is following the rules (Priabdi, 2017).

Media development like this is an effort to realize science learning with a pleasant learning atmosphere. Because a pleasant learning atmosphere will positively influence student learning outcomes (Ritonga and Shahiba, 2020). In addition, the pleasant atmosphere will also affect students' attitudes towards the subject (Tisza, 2021). Moreover, the 21st century demands that students want to be more active (Susanti, et al., 2020). this will also help foster a positive stigma on science as a fun subject that can make students active in learning.

CONCLUSION

Based on this research, it can be concluded that the science learning media in the form of a monopoly game with the material of the motion system of class VII junior high school is valid. The media has been validated by material, language, and media experts. These findings suggest that learning media can be in the form of educational games. The aim is to make the learning atmosphere

fun and help students to understand the lesson content. Of course, further trials are needed to maximize the use of media in the future.

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