

Students Response to the Literacy Educational Game Application at SMPN 2 Kwanyar

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Abstract. The reading literacy scores of Indonesian students according to PISA are far below the global average. Efforts to improve literacy can be developed through learning media. One of the learning media that students like is educational games. The purpose of this research is to determine students' responses to the Literacy Educational Game (LEG) as a learning medium to foster literacy skills. The research method is quantitative descriptive. The subject of this research is the students of SMPN 2 Kwanyar, totaling 26 students. This research instrument includes a media validation sheet and a student response questionnaire. The results of the media expert validity showed a percentage of 87%, which falls into the very good category. Meanwhile, the results of the student response questionnaire showed a percentage of 90%, also falling into the very good category.

1 Introduction

Education is a conscious and planned effort undertaken by adults to provide guidance or assistance in developing the physical and spiritual potential of learners, as well as achieving the goal of enabling learners to carry out their life tasks independently [1]. Ki Hajar Dewantara stated that education is a necessity for the growth and development of children. Through education, all the natural potentials possessed by a child are directed so that they can achieve personal success and happiness, as well as make the maximum contribution to society.

Education is a deliberate and planned attempt to create a learning environment and learning process that encourages students to be active and develop their potential with the aim of acquiring a sense of spirituality, self-knowledge, personality, intelligence, morality, and high skills, as stated in Law No. 20 of 2003 on the National Education System. Education is necessary for the interests of students, society, the nation, and the state. Education is the most important part of a person's life, meaning that every Indonesian has the right to receive it and is always expected to thrive within it. Education is a never-ending process; the general purpose of education is a life process that develops each individual for

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living and their survival [1].

The Progress in International Reading Literacy Study (PIRLS), which was carried out in 2006, examined the difficulties facing Indonesian schooling. Under the auspices of The International Association for the Evaluation of Educational Achievement (IEA), PIRLS performed a research on reading proficiency among fourth-grade elementary school students globally, comparing 45 industrialized and developing nations. Indonesia came in at number 41. In addition, the results of the PISA research show that Indonesia's literacy score in 2015 reached 397, then decreased to 371 in 2018. Indonesia's achievement in literacy in PISA in 2018 (371) is far below the world average score, which is 487 [2].

Efforts to improve literacy have been developed through various media. The research [3] explains that the use of literacy movement learning media has a positive impact on the learning outcomes of lower-grade children at SDN 258 Sukarela. In addition, research [4] shows that the use of computer-based learning media can have an impact on improving students' literacy skills. There is also the use of educational videos as a medium to foster literacy among elementary school students. One study [5-6] shows that video learning media affects literacy, the learning outcomes of fifth-grade elementary school students, and addresses the low reading interest of Generation Z. This is evidenced by the percentage score obtained, which is 71.10%. Research [7-8] using modules in the form of Canva and Pinterest applications to enhance literacy and reading skills among students.

The use of technology in the field of education should be harnessed to facilitate the implementation of learning. Utilizing technology as a learning medium involves various levels of technology, from simple to advanced. By leveraging technology, students can enhance their interest in the learning process, making learning more active and efficient [9]. One of the uses of technology in education is by developing learning media.

According to [10] in order to improve and perfect learning objectives, learning media is a tool that can support the teaching and learning process by explaining the meaning of the content transmitted. It was also [11] conveyed that learning media is a tool that functions and can be used to deliver learning messages. The subject of science, particularly the transfer of heat, covers topics such as heat sources, conduction, convection, radiation, and thermal insulators. However, in the implementation of learning, innovation has not yet fully materialized, both in terms of models, strategies, methods, and the use of media.

Based on the study regarding the low interest in reading in Indonesia, there is a need for a Literacy Educational Game to enhance students' reading interest. The researcher utilizes educational games because they are essential in today's learning environment, allowing students to learn and practice independently. The topic of this research is "Students Response to the Literacy Educational Game Application at SMPN 2 Kwanyar."

2 Method Research

This type of research uses a descriptive quantitative method [12]. The details of the research procedure are shown in Figure 1.

The first stage of preparation. This activity involves the validation test of the media literacy educational game. The purpose of this stage is to ensure that the game is suitable for developing students' literacy. The second activity is to develop a questionnaire device for student responses to measure the feasibility of using the media literacy educational game.

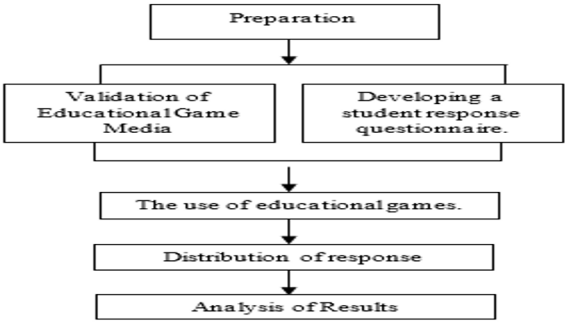


Fig. 1. Research Stages

The next step is the use of games. The games are used by students of SMPN 2 Kwanyar. Following that is the stage of administering response questionnaires. After the students use the educational literacy game, they are asked to provide feedback on the media. Stages of result analysis. The analysis used a quantitative descriptive method. This activity involves presenting data quantitatively and then analyzing its categories as shown in Table 1.

3 Result and Discussion

The literacy educational game is developed to foster reading interest among middle school students. Some of the initial display features are shown in Figure 2.



Fig. 2. Initial Display of The Educational Game

The initial display at the top contains development features, sound settings, close, instructions, objectives, and play. The instructions feature is shown in Figure 3.



Fig. 3. Instructions for using The Literation Educational Game

In Figure 3, there are instructions for using the game, which include how to move the character in the game, as well as explaining the mechanism for earning points. Next, the play feature contains as shown in Figure 4.

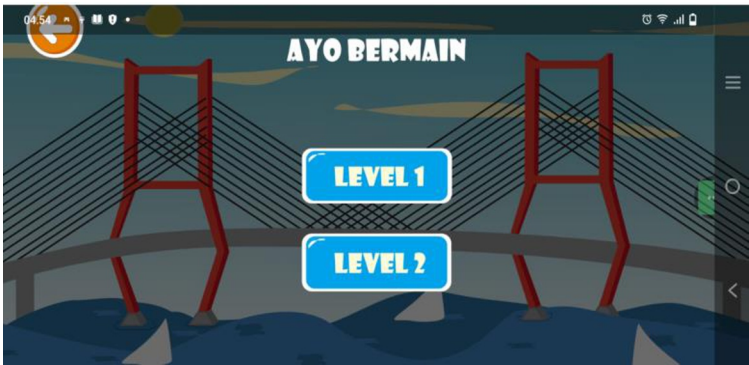


Fig. 4. Playing feature

This feature contains two levels of play. In level 1, students travel during the daytime, while in level 2, students travel at night. The main feature of this game is the provision of reading materials before tackling the presented questions, as shown in Figure 5.

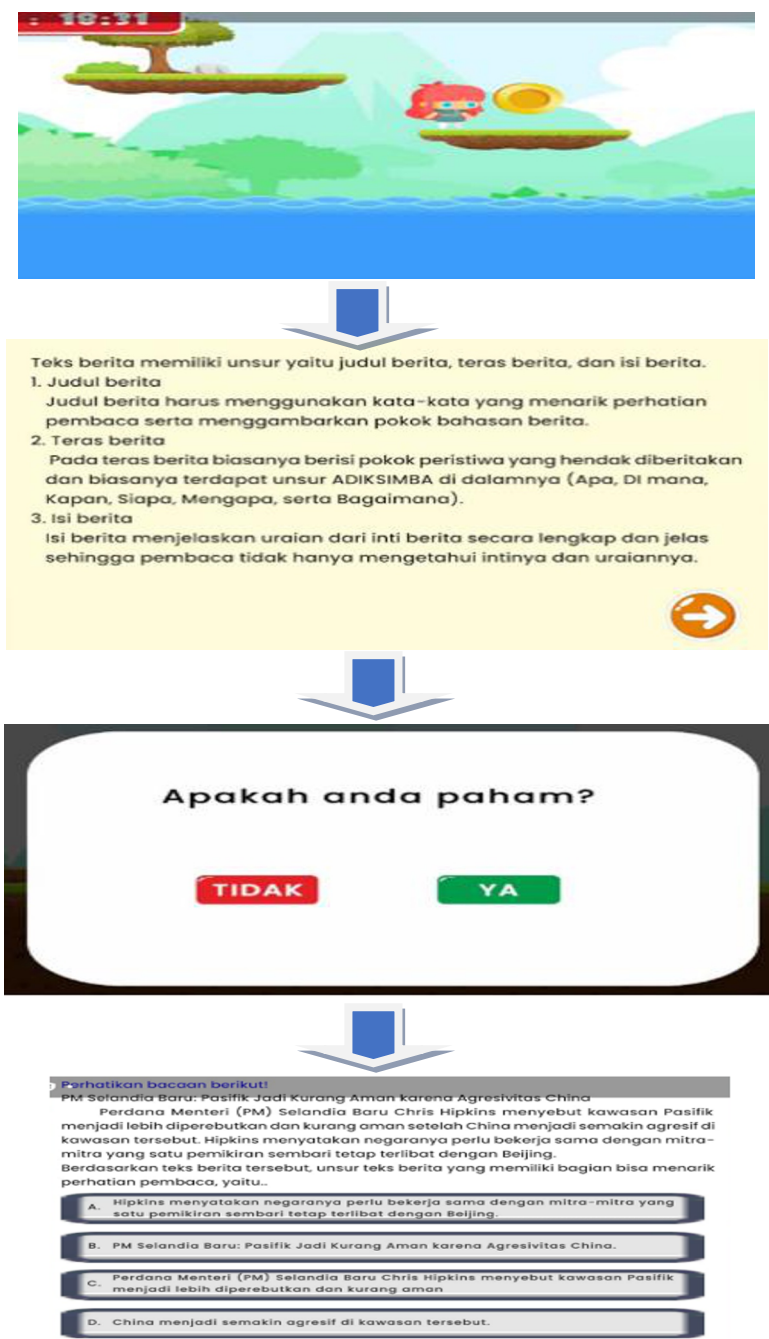


Fig. 5. The Mechanism of Action of Literation Educational Games

Students need to touch the gold coin sign first, after which reading materials will appear. After the students finish reading, there is a selection instruction asking whether the students understand the content of the reading or not. If you understand, then you can continue with the exercises. If the student still does not understand, they can automatically return to the reading material. When the student has mastered the reading material and clicks yes, questions will appear, and the student is required to choose the most appropriate answer. At the end of the session, students will know the score they obtained as shown in Figur 6.

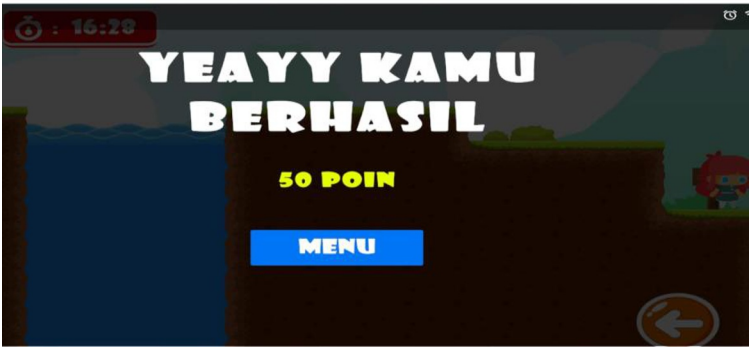


Fig. 6. The Final Results of The Students after Completing The Exam Questions.

In everyday language, there is a notification of the final score after each level is completed, which says, "Yay, you have successfully collected points!" A media literacy educational game validated by an expert in the field of educational technology. The results of the media validation test are as follows in Table 1.

Table 2. Results of Media Validation Test

Indicator	Average Assessment Score	Max Score	Percentage
Game criteria	5	5	100%
Presentation	4	5	80%
Appearance	4	5	80%
Language	4.5	5	90%
Total	4.8	5	87%

The results of the validity test on the game criteria indicators reached 100%, game presentation reached 80%, appearance 80%, and language 90%. Thus, the average assessment from media experts reached 87%, categorized as very good. A total of 26 students provided feedback on the media literacy educational game shown in Figure 7.

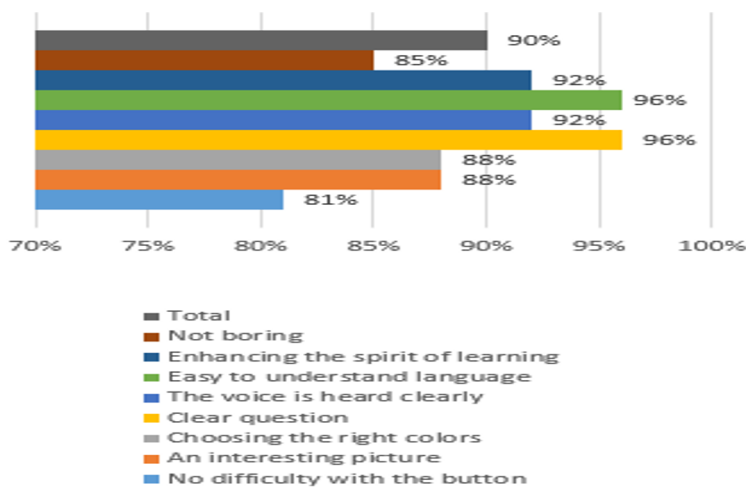


Fig. 7. Results of the Student Response Survey

The detailed description of the student response survey regarding LEG in Figure 7 shows a percentage level in the category of no difficulty with the buttons at 81%, interesting images at 88%, and color selection at 88%. The category of clear questions stands at 96%, the category of clear sound at 92%, and the category of easy-to-understand language at 96%. Additionally, the category of enhancing learning motivation is at 92%, and the category of not being boring is at 85%. Based on these results, it can be concluded that the student response to LEG is 90%, which falls into the very good category.

The implementation of the Literacy Educational Game is aimed at seventh-grade students at SMPN 2 Kwanyar on September 5, 2024. Based on the results of the student response questionnaire analysis, there are several findings from the research. The first finding is that the Literacy Educational Game serves as a media or educational game that can increase students' learning motivation by 92% (Figure7). This confirms (2) That educational games are very beneficial in the learning process because of their enjoyable, motivating, and entertaining characteristics. The same goes for research [13]. It shows that educational games that are enjoyable, stimulating, and encourage students to keep learning through reading skills and digesting a lot of information.

The second finding is that the questions in the Literacy Educational Game are clearly understood by 96% of the students (Figure 7). As stated [14], educational games are designed to convey learning material or reinforce understanding of learning concepts. The next finding is that the language used in the Literacy Educational Game is very easy for students to understand, with a rate of 96% (Figure 7). This confirms [15] that educational games have several advantages, such as easy-to-understand language, the ability to be designed to be challenging, enjoyable, and relatable to students.

Educational games have many benefits or advantages that can be gained. The findings confirm that research [16] on the role of games in learning can be seen from the definition of games as a means or tool to: (1) train skills; (2) enhance awareness and increase motivation; (3) integrate learning experiences.; (4) foster communication and

collaboration; and (5) develop knowledge. Thus, teachers need to use engaging learning media to motivate students to read.

4 Conclusion

Based on the data from the validators and student responses, it can be concluded that: 1. The literacy educational game has a media validity level of 87%, which is considered valid and suitable for use. 2. Student responses to the literacy educational game are at 90%, falling into the very good category. Research suggestionThe literacy educational game has so far been limited to testing student responses on a small scale, involving only 26 students. In the future, it is necessary to conduct tests in several schools and measure students' literacy skills.

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