

THE DEVELOPMENT OF POWTOON-BASED LEARNING MEDIA ON CLASSIFICATION OF LIVING THINGS TO INCREASE THE LEARNING INTEREST OF CLASS VII STUDENTS AT SMP PLUS JA-ALHAQ BENGKULU CITY

Nur Haviza Yuliana¹, Irwan Satria², Erik Perdana Putra³

^{1,2,3} Science Study Program, Faculty of Tarbiyah and Tadris

^{1,2,3} UIN Fatmawati Sukarno Bengkulu, Bengkulu, Indonesia

ABSTRACT

The aim of this research is to develop powtoon-based learning media on the classification of living things to increase the learning interest of class VII junior high school students. The type of research used in this research is the ADDIE research method which consists of 5 stages, namely analysis, design, development, implementation, and evaluation. This research was carried out at SMP Plus Ja-alHaq, Bengkulu City, involving 10 students in seventh grade and one science subject teacher. So the first step that researchers take is to analyze problems and analyze needs. The next step, the researchers designed a science learning media product using Powtoon by including material on the classification of living things. In the product development stage, a validation test was carried out on the feasibility of powtoon-based learning media by 3 lecturers at Fatmawati Sukarno Bengkulu State Islamic University consisting of 1 material expert lecturer, 1 media expert lecturer and 1 language expert lecturer. Data from questionnaire analysis by calculating the percentage of achievement in each component, namely 94.6% from material experts, 96% from media experts, and 86% from language experts with the category very suitable for use. Data on the practicality of science learning powtoon based on data from student perception responses and science teacher perceptions that researchers developed obtained a percentage value of 94.33% of student perception responses, 95% of science teacher perceptions which were categorized as very practical. The conclusion of this research is that the use of the developed Powtoon -based science learning media is very feasible, and very practical to use as teaching material in supporting the teaching and learning process on the classification of living things for middle school students for class VII of Ja-alHaq Plus Middle School, Bengkulu City.

Keywords: Classification of Living Things; Powtoon Based Media; Interest to learn

Corresponding Author:

Nur Haviza Yuliana¹, Irwan Satria², Erik Perdana Putra³

Science Study Program, Faculty of Tarbiyah and Tadris

UIN Fatmawati Sukarno Bengkulu, Bengkulu, Indonesia

Email: [1_nurhavizayulianna22@gmail.com](mailto:nurhavizayulianna22@gmail.com) [2_satriairwan1974@gmail.com](mailto:satriairwan1974@gmail.com) [3_erik.perdana@iainbengkulu.ac.id](mailto:erik.perdana@iainbengkulu.ac.id)

1. INTRODUCTION

The development of science and technology requires comprehensive renewal in the field of human life, especially in the field of education, which is absolutely necessary to improve human resources (HR) that are able to compete in the global world, directly or indirectly providing a significant influence on several aspects of life. man. Various kinds of reforms in educational aspects have been carried out in order to improve the quality and quantity of education [1]. To improve the educational process, teachers are required to make learning more innovative which encourages students to learn optimally, both in independent learning and in classroom learning. Apart from that, teachers are also required to make the learning atmosphere comfortable, interesting and can create learning media that can make it easier for students to understand the material provided by the teacher with interesting learning media that will increase enthusiasm for learning and influence students' interest in learning science [2].

Science is a natural learning concept and has a very broad relationship with human life. In science learning, so that the message or learning material delivered by the teacher can be received by students, a vehicle for conveying the message is needed, namely learning media [3]. Through this media, it is hoped that it will be easier for students to master the subject matter, including at SMP Plus Ja-alHaq, Bengkulu City. Based on an initial study using the observation method in science learning in class VII of

SMP Plus Ja-alHaq, Bengkulu City, researchers obtained information through an interview process with one of the science subject teachers and observing the learning process in the classroom.

In the observations carried out by the researcher, in the science learning process, it turned out that the researcher found various problematic phenomena that were encountered, seen from the teacher's perspective, who still tended to dominantly use traditional learning media, such as focusing on using textbooks and only giving assignment notes. Teachers in the learning process still have very little innovation, as can be seen from teachers who still tend to be verbal by using the lecture method and making minimal use of learning media. This has an impact on the learning activities of students who still tend to be less enthusiastic about participating in the learning process in class, so that during the learning process in class there are still students who lack focus in learning. This happens because when learning science, which should require an active, innovative and contextual learning process, teachers only rely on one teaching material, namely books which tend to be monotonous and students seem burdened with the summarizing tasks that are often given by the teacher. So in the end, it can be seen that students feel bored in learning and theoretically this can lead to low student understanding.

In creating innovative learning and to make it easier for teachers to achieve optimal goals or results. Teachers really have to be able to innovate using innovative learning media, so there are several learning media that can be used by teachers as an alternative to create an active learning atmosphere, namely powtoon-based learning media. Powtoon-based learning media is a learning media in the form of interesting videos and as a complementary learning media with illustrations and the language used is also more communicative and friendly [4]. In this way, the Powtoon learning media will make it easier for educators to guide students' understanding from real, to semi-real, then to semi-contextual, and finally in contextual form [5].

To overcome existing problems. So the researchers continued by looking at the extent to which this learning media would be needed if it were developed. Therefore, the researchers continued by analyzing the needs directly for teachers and students at SMP Plus Ja-alHaq, Bengkulu City. The needs analysis carried out by researchers used questionnaires to teachers and students. From the results of the needs analysis, the researcher concluded that learning media such as Powtoon media are still very much needed and needed by teachers to fix several problems previously discovered by researchers during the initial problem analysis. Apart from that, there are also advantages provided by This powtoon-based learning media, the researchers had an idea to develop a powtoon-based learning media for learning the classification of living things with the aim of making it an alternative learning method to fix the problems that researchers found previously. However, before this media is developed, researchers need to study further what the needs of teachers and students are, if researchers develop this learning media.

2. METHOD

Time and Place of Research

The research was carried out from 6 October to 6 November 2023. The location of this research was carried out at SMP Plus Ja-alHaq, Bengkulu City, which is located at Jl. Bumi Ayu Raya, Muara Dua Village, Kampung Melayu District, Bengkulu City.

Research Model

The research model used in this research is ADDIE (Analysis, Design, Development, Implementation, Evaluation) development research [6]. Based on the ADDIE model which consists of 5 stages, namely, (1) the analysis stage is carrying out analytical actions in the form of problems that occur within the scope of the school such as learning processes (conditions), teaching materials and learning system materials and media in the classroom; (2) the design stage is carrying out and creating several process stages, namely outlining the formulation of learning objectives by determining the main subject matter and material to be reviewed, after that is the systematic preparation of teaching materials that are balanced with the context of students' needs; (3) the development stage is a stage for preparation and writing in carrying out learning activities in textbooks that are in line with student needs. (4) The implantation stage is the stage in a learning activity where the application and use of developing teaching materials are applied to students and teachers. (5) Then the final stage is the evaluation stage, at this stage the implementation is carried out to test the product implementation which will be carried out in the field until the product is perfected. Research and development is carried out to produce products in the form of powtoon-based learning media on the classification of living things to increase students' interest in learning [7].

Data analysis technique

Processing data analysis through fulfilling the feasibility test aspect, the practicality of the Powtoon-based learning media from the data is a result that can be accounted for.

1. Validity analysis data

Validation analysis of Powtoon-based media products, using validity percentages. Validity assessment uses Likert scale score criteria with a score of 1 to 5 in the form of quantitative data. The formula used in calculating the percentage is as follows:

$$\text{Percentage (\%)} = \frac{\text{Jumlah skor perolehan}}{\text{Jumlah skor maksimum}} \times 100\%$$

Table 1. Validity Criteria

No	Percentage Score (%)	Interpretation
1	80%-100%	Very Worth It
2	60%-80%	Worthy
3	40%-60%	Decent Enough
4	20%-40%	Not Worth It
5	0%-20%	Totally Not Worth It

2. Data analysis of questionnaire results

Powtoon -based learning media by teachers and students was analyzed quantitatively based on *Likert SKSLA* with reference to 5 categories.

Ideal score: ST×JP×JR

Table 2. Categories of Powtoon Practicality Assessment Results by Teachers and Students

No	Percentage Score (%)	Information
1	80%-100%	Very Practical
2	60%-80%	Practical
3	40%-60%	Quite Practical
4	20%-40%	Less Practical
5	0%-20%	Very Impractical

3. RESULTS AND DISCUSSION

Analysis Stage (Analysis)

This analysis stage is carried out to describe the causes between the expected conditions and the reality in the field [8]. To find potential problems, researchers conducted an initial study of students and teachers at SMP Plus Ja-alHaq, Bengkulu City so they could understand the learning process and the need for teaching materials. In the initial study, researchers learned that the learning process was still dominated by the use of books, blackboards and worksheets, the methods used by teachers in the learning process still tended to only use lecture methods, group discussions and questions and answers carried out by teachers without being balanced by activities. Active students show that students' interest in learning is still very low during the learning process because some students are sleepy and fall asleep.

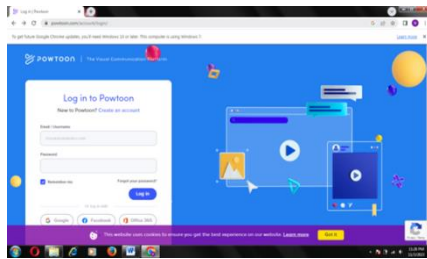
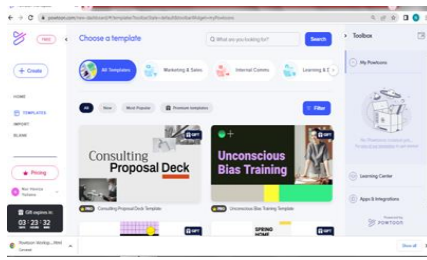
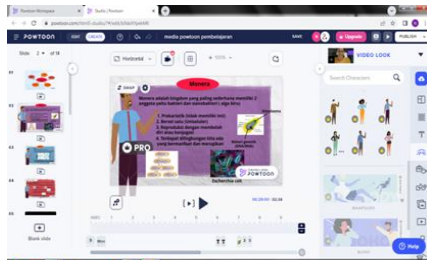
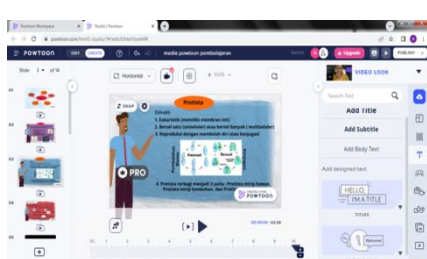
Apart from that, researchers also found that in the material on the classification of living things, there are still many students who do not know the characteristics of living things, and the use of time is also less effective in conveying the material on the classification of living things, so learning media are

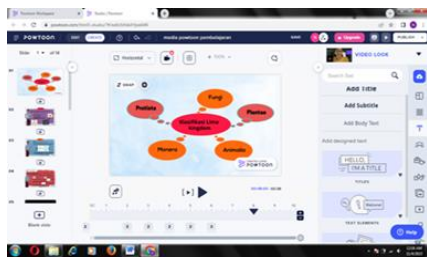
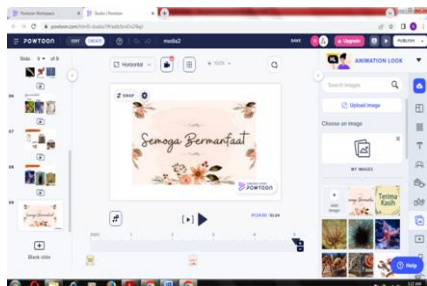
needed that can convey the material briefly and clearly. So teachers need effective learning media to increase students' interest in learning during the teaching and learning process in the classroom.

The media materials used by students in the learning process are still science textbooks and whiteboard media provided by the school. The books have a worn appearance and some pages are missing and torn, preventing ideal learning for students [9].

Design Stage (Design)

Systematics at this stage is the design stage carried out before developing or implementing activities [10]. In designing Powtoon-based learning media there are several stages carried out which can be seen in the following table:

No	Visual	Information
1		<p>Collect Powtoon video-based science learning media materials and design the material by opening the Powtoon application by opening the page link https://www.powtoon.com.</p>
2		<p>Selection of image templates that can be adjusted to your needs and taste preferences by selecting a template using the images available in the Powtoon application.</p>
3		<p>Selection of backgrounds and characters that can be adjusted to your wishes. The background selection for this image can be selected via the device or using the background that is already available and the character selection can be selected according to your wishes available in the Powtoon application.</p>
4		<p>The choice of written text is to clarify images of material on the classification of living things or other explanations.</p>

<p>5</p>		<p>The next stage of text selection is to enter the material for the classification of living things into the design that is available in the Powtoon application.</p>
<p>6</p>		<p>The final completion of the video can be adjusted to the researcher's wishes to support better and more interesting media.</p>

Development Stage (Development)

At the development stage, there are several things that researchers do, namely developing media that has been designed by researchers using applications, one of which is Powtoon [11]. The content of this learning media consists of material obtained from class VII science books. After the learning media has been created, the media enters the feasibility assessment stage which is carried out by 3 validator lecturers, namely media, language and material experts to show that the Powtoon media that has been created is suitable for use with accuracy in the material.

Table 3. Media , Material and Language Expert Validation Results

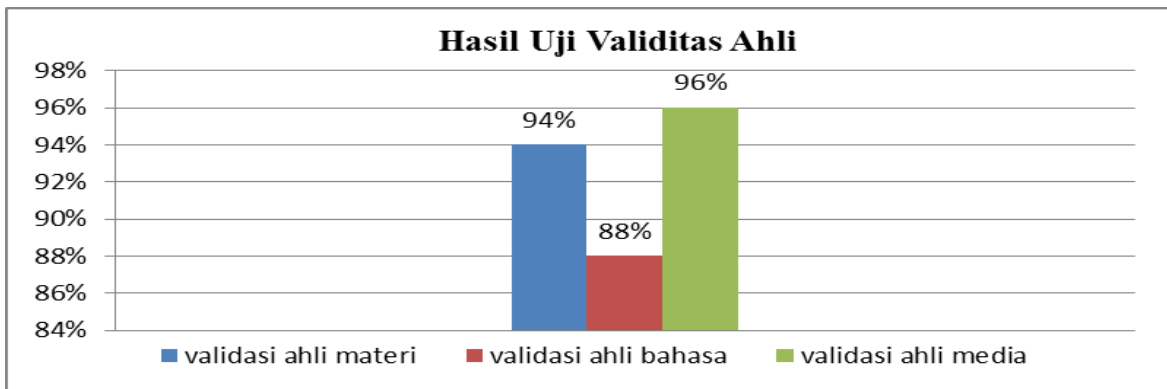


Table 4 . Before and After Revision

<p>View Before Revision</p>	<p>View After Revision</p>
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Tujuan Pembelajaran:

- 1 Menjelaskan Perbedaan Makhluk Hidup dan Benda Tak Hidup
- 2 Menganalisis Ciri-ciri Makhluk Hidup
- 3 Menganalisis Klasifikasi Makhluk Hidup
- 4 Mengamati dan Memahami tentang Kingdom Tumbuhan dan Hewan

Klasifikasi makhluk hidup adalah suatu cara mengelompokkan makhluk hidup berdasarkan kesamaan ciri-ciri yang dimilikinya.

BERADAPTASI

Makhluk hidup memiliki kemampuan untuk menyesuaikan diri dengan lingkungan disebut dengan adaptasi. Contohnya:

Bunglon beradaptasi dengan melakukan mimikri yaitu mengubah warna kulitnya sesuai dengan lingkungan atau tempat hinggapnya. Dengan merubah warna kulitnya sesuai dengan lingkungannya bunglon terlindung dari pemangsa yang sekaligus tersamar dari mangsanya.

6. Beradaptasi

Kingdom Monera

Monera adalah Kingdom makhluk hidup yang tidak memiliki membran inti, biasanya disebut organisme prokariot. Meskipun tidak memiliki membran inti, kelompok monera memiliki bahan inti, seperti asam inti, sitoplasma, dan membran sel.

Contoh kelompok Monera ialah bakteri dan alga biru.

Monera

Monera adalah kingdom yang paling sederhana memiliki 2 anggota yaitu bakteri dan sianobakteri (alga biru)

1. Prokariotik (tidak memiliki inti)
2. Bersel satu (Uniseluler)
3. Reproduksi dengan membelah diri atau konjugasi
4. Terdapat di lingkungan kita ada yang bermanfaat dan merugikan

Escherchia coli

According to the validator's assessment, the Powtoon-based video media developed by researchers in terms of 96% media, 86% language and 94.6% material is very suitable for use. Based on the interpretation scale for assessing the suitability of Powtoon using a score of $81 \leq P \leq 100\%$, it will be classified as very suitable teaching material to use according to the experts' revision. Based on the final objective of the feasibility test, the product being developed is designed according to students' needs when carrying out a lesson.

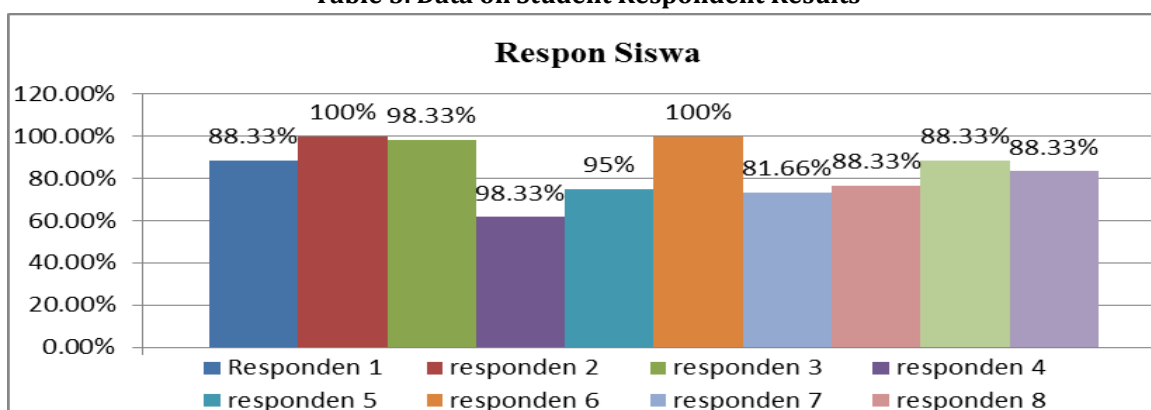
Implementation Stage (Implementation)

In the next stage is the implementation stage, at this stage the researcher only limited group trials in the form of limited student and teacher trials of products in the form of powtoon-based learning media on the material of classification of living things to increase the learning interest of class VII middle school students and was not continued. to a larger group to see effectiveness [12] . The

practical test results also state that the teaching materials created are practical to use. In accordance with this statement, it can be concluded that the teaching materials developed are practical and simple to be used as teaching materials for teachers to help students develop their mathematical communication skills. Test product practicality using a limited scale test method.

This practicality test stage was carried out by researchers with 10 student respondents and 1 teacher in class VII science subjects. Based on the results of research conducted by researchers at SMP Plus Ja-alHaq, Bengkulu City, the results obtained from student respondents had a percentage of 94.33% (Very Practical), several points that were assessed include the attractive appearance of this powtoon, using this powtoon can make learning science not boring, this powtoon-based teaching material can increase students' interest in learning science [13]. The overall results of the student assessment can be observed in the following picture:

Table 5. Data on Student Respondent Results



Based on the picture, it can be seen that respondent 1 has a score of 88.33% (very practical), respondent 2 has a score of 100% (very practical), respondent 3 has a score of 98.33% (very practical), respondent 4 has a score of 98.33% (very practical), respondent 5 has a score of 95% (very practical), respondent 6 has a score of 100% (very practical), respondent 7 has a score of 81.66% (very practical), respondent 8 has a score of 88.33 (very practical), respondent 9 had a score of 88.33 (very practical), respondent 8 had a score of 88.33 (very practical). The respondent's run of the mill score was 94.33%, and because the data assessment used a Likert scale, it got a place with a level of $81 \leq P \leq 100\%$ and was determined to be very practical.

With the questionnaire assessment, the teacher's response has a percentage of 95% (very practical), several assessment points are the suitability of the Powtoon teaching materials displayed with the material, the Powtoon video display is attractive. The material presented in this media is easy to understand and not boring, and is able to increase students' interest in learning Study. Thus, the results of teachers' and students' responses to the Powtoon video are very practical for use in the learning process regarding the classification of living things.

Evaluation Stage (Evaluation)

The final stage is the evaluation stage, this evaluation stage is the assessment stage which is carried out after carrying out trials at the implementation stage [14]. Therefore, at this evaluation stage the researcher conducted research based on input from students and teachers which was carried out during the implementation stage, input or suggestions were given which must be evaluated again with the researcher, namely the developed Powtoon-based learning media must be taught to make it using the Powtoon application to teachers or students. developed by researchers. Based on the results of the questionnaire that the researchers distributed to teachers and students, an overall conclusion was obtained from the results of the questionnaire of teacher and student respondents regarding Powtoon-based learning media. The results of the conclusions used to see the practicality of the product being developed show that powtoon-based learning media is categorized as very practical in the practical aspect.

4. CONCLUSION

The development of Powtoon-based science learning media was developed based on research and development, namely using the ADDIE model which has 5 stages of development. The first stage is analysis, design, development, implementation and evaluation. Powtoon-based science learning media on the classification of living things to increase learning interest for class VII SMP students, obtained a very decent score from the media expert validator lecturer with a percentage of 96% and obtained a very decent score from the language expert validator lecturer with a percentage of 86% and obtained a score very worthy of material expert validator lecturers with a percentage of 94%, so it can be concluded that this powtoon-based learning media is very suitable to be used to increase students' interest in learning in grade VII middle school. Powtoon-based learning media is very practical to use. This is proven by the results of students' practicality tests on Powtoon-based media which had a percentage of 94.33 % (very practical) and the teacher's response was 95% (very practical).

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