



Hybrid Storyboard Media Boosts Historical Learning for Third-Graders

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Abstract. This study aimed to develop and analyze the feasibility and effectiveness of hybrid learning-based storyboard telling media to increase the understanding of historical material among third-grade elementary school students. The ADDIE development model was used, and data were collected through questionnaires, pretests, posttests, and documentation. The data were analyzed using quantitative percentage analysis techniques and paired T-test analysis. The results showed that the media was highly feasible with an average eligibility of 89% . Additionally, the media was highly effective in improving students' understanding of the material, with an increase of 40.85% in pretest and posttest values. The results of the paired sample T-test indicated a significant influence on students' learning. These findings suggest that storyboard telling media based on hybrid learning can be a valuable tool for teachers to convey historical material effectively and efficiently.

Keywords: Hybrid learning · storyboard telling · elementary education · historical material · student understanding

1 Introduction

Learning media is a tool or intermediary to facilitate students and teachers in the process of teaching and learning activities. Oemar Hamalik (1994) said that learning media is a tool, method, and technique used in education and learning in schools to make communication and interaction between teachers and students more effective [1]. With effective and innovative learning media, it will be able to direct students to the ease of capturing and understanding the material presented by the teacher.

In this regard, Gerlach & Ely also revealed that learning media has a broad scope, covering all the resources needed to communicate in learning so that learning media can be in the form of hardware or software used on that hardware [2]. Based on some of these opinions that learning media is a tool that is used to facilitate the delivery of ideas or subject matter of learning in the form of hardware and software.

Teachers and students in teaching and learning activities need learning media. A media used in learning to convey messages or information in the teaching and learning

activities will be more effective and innovative. Innovative learning will create a dynamic learning atmosphere by involving students' activeness in each learning process so that in conveying messages or information by the teacher, the attention and interest in student learning can be adequately stimulated using learning media [3]. In addition to facilitating teachers and students in the teaching and learning process, learning media can also build an interactive learning atmosphere.

In an interactive learning atmosphere, students will tend to be motivated to know the material to be studied [4] so that it can affect student understanding.

In learning history of Islam (SKI) subjects at primary school, several media can be used to support practical and interactive learning. One media that can be used in SKI learning in primary school is Storyboard telling media. Storyboard telling is one of the suitable media to convey historical material chronologically or sequentially because chronology includes historical characteristics. This media is a combination of concept maps, timelines, and narratives whose function is to assist in presenting historical knowledge.

The use of storyboard telling media has several advantages, such as attracting students' attention to focus on the material being taught. In addition, with storyboard-telling media, the teacher can put the central ideas or ideas so that students can understand the primary information presented in the media. Through the use of these media, learning objectives can also be adequately conveyed. Judging from the current learning situation, which is still affected by the Covid-19 pandemic, learning must be carried out online. Online learning is carried out online using learning applications and social networks without face-to-face meetings but through available platforms. Thus the researcher uses a hybrid learning model to apply the learning media.

Hybrid learning is a learning model that facilitates learning by combining various delivery methods, teaching models, and learning styles by introducing different dialogue media options between the facilitator and the person receiving the teaching [5]. Hybrid learning is also a combination of in-person and online teaching, but more than that as an element of social interaction. So in this learning model where students can participate online or in person.

Applying the Hybrid learning model to storyboard telling media in the current post-pandemic new normal conditions is expected to provide realistic, practical opportunities for teachers and educators to learn independently, benefit, and continue to develop. It can also help students to develop better in the learning process according to learning styles and preferences in learning [6].

Based on some of the statements above, the focus of this research is the Development of Hybrid Learning-Based Storyboard Telling Media in SKI Class III Subject MI Muhammadiyah 01 Payaman. This research is significant because of the existence of storyboard learning media as a research study that can help increase students' understanding of SKI learning the material "Events that accompanied the night of Muhammad SAW's birth." Therefore, in this study, researchers wanted to develop learning media that were interesting and efficient in the new normal era based on hybrid learning so that students had learning motivation and a good understanding of receiving material.

2 Methods

The type of research used in this study is research and development (research and development). Brog and Gall define research and development as a process or method used to validate and develop products [7]. Research conducted in class III MI. The number of students as many as 20 subject students used in this study was media experts, linguists and content experts as well as small groups with a total of 5 students, large groups with a total of 20 students.

The research and development model in this study is the ADDIE model (Analysis, Design, Development, Implementation, Evaluation). The research procedure carried out in this study is in accordance with the model used, namely the ADDIE model. The ADDIE development model has 5 steps in the development process including: 1) Analysis, 2) Development, 3) Implementation, 4) Implementation and, 5) Evaluation [8]. These stages can be described according to the following research procedure:

2.1 Analysis Stage

The analysis phase is the first stage that must be carried out in the ADDIE development model. In this stage, the analysis is carried out by conducting interviews with teachers at MI Muhammadiyah 01 Payaman to find out the learning process carried out and the problems of students and teachers when learning takes place. As well as to find out the potential of students in understanding the material delivered by the teacher during learning takes place (Fig. 1).

2.2 Design Stage

At this stage, the analysis was carried out by interviewing teachers and observing students, then researchers began to design innovative learning models and make it easier for students to understand the material well but by using different delivery methods. At this stage the researcher adjusts to the needs of students. The researcher provided a multimedia product design in the form of Storyboard Telling media which was designed

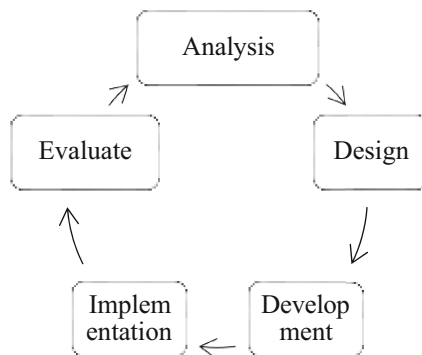


Fig. 1. ADDIE Development Model Procedure

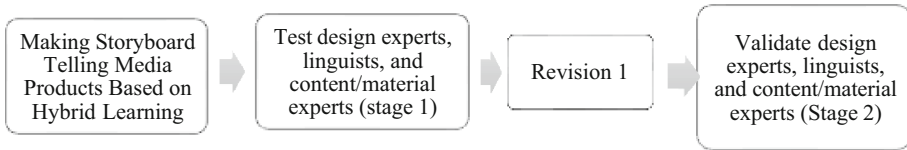


Fig. 2. Scheme Development Model ADDIE

as systematically and as attractively as possible to overcome students who had difficulty understanding material that only used text in the subject of Islamic Cultural History (Fig. 2).

2.3 Development Stage

At this development stage, it is the design and production of the results that are in the second stage. At this stage, the researcher begins to design products that will be used as Storyboard telling media to increase student understanding. This stage is longer stage than the previous stage. In this development stage, the researcher conducted expert validation by testing design, language, and content/material experts, which were carried out in two stages. This is described in the following chart image:

2.4 Implementation) Stage

The implementation phase is the fourth stage of the ADDIE development model. At this stage, the researcher used the results from the third stage. The intended implementation is applying the products created by researchers to be tested on students on a small and large scale. The process at this stage will be carried out by researchers with grade 3 students at MIM 01 Payaman directly. Based on the implementation carried out by this researcher, it was possible to see student responses before and after using storyboard-telling learning media.

2.5 Evaluate Stage

The evaluation stage is the final stage of the ADDIE development model. This stage is the result of the implementation phase. After delivering the product that has been made, at this stage, the researcher can see whether or not there is an increase in understanding regarding the material conveyed through story board telling media. This stage takes place when learning and its assessment are already in the learning implementation plan. The process at this evaluation stage was carried out by researchers to obtain the results obtained during the research until it was completed.

Table 1. Feasibility Interpretation Assessment Criteria

Scale	Percentage	Qualification	Description
5	81%–100%	Very Good	No revision needed
4	61%–80%	Good	No revision needed
3	41%–60%	Quite good	Need Revision
2	21%–40%	Not good	Need Revision
1	0%–20%	Bad	Need Revision

Table 2. Media Expert Validity Percentage

Description	X	Xi	P%	Product validity level
amount	31	45	88,57%	Very good

3 Results and Discussion

3.1 Media Eligibility

The feasibility of product development can be seen from the results of expert validation. Based on the ADDIE model development research procedures described in the Development stage, the expert validation process was carried out in two stages, namely stages I and II, with one revision (Table 1).

3.2 Media Expert Validation Results

The media expert test in this study was carried out by an expert who has qualified knowledge in the field of design and insight into IT (Information Technology). As a validator, a lecturer carried out the media expert test at the Madrasah Ibtidaiyah Muhammadiyah University of Sidoarjo. Media expert validation is carried out to determine the feasibility of Storyboard Telling media in terms of design and preparation of the media components. Based on these results, it can be presented in a quantitative analysis of the percentages described in the following Table 2

Based on the data above, it is explained that x is the total score of the answers and xi is the total ideal score, while $P\%$ is the result of x and xi . x can be said to be 31 based on the total value obtained in the questionnaire. While 45 is the feasibility score multiplied by the number of questions. So that a value of 88.57% was achieved with the qualification level of product validity “Very Decent”.

3.3 Linguist Validation Results

An expert carried out the linguist test in this study with knowledge and understanding qualifications for good and correct Indonesian language procedures. The validation of

Table 3. Percentage of Eligibility Validation of Linguists

Description	X	Xi	P%	Product validity level
amount	36	40	90%	Very good

Table 4. Content Expert Feasibility Validity Percentage

Description	X	Xi	P%	Product validity level
amount	44	50	88%	Very good

linguists in this development research was validated by Drs. Muflich Hasyim, M.Pd. as a lecturer in the Indonesian Language subject for Teacher Education Study Program Madrasah Ibtidaiyah Muhammadiyah University Sidoarjo. Linguist validation was carried out to find out the feasibility of storyboard telling media from a linguistic point of view which includes standard and non-standard words, EYD and others. From these results it can be presented in a quantitative analysis of the percentages described in the following Table 3

The table data above explains that x with a total score of 36 answers, and xi has a total ideal score of 40, while P% is the result of x and xi. So that a result of 90% is achieved with the qualification level of product validity “Very Decent”.

3.4 Content Expert Validation Results

An expert carried out the content expert test in this study with knowledge and qualifications in the field of cultural history at Islamic elementary schools. The validation of content experts in this development research was validated by Mr. M. Asro Ashabul Yamin as the SKI subject teacher. The data was obtained from the results of the content expert questionnaire. From these results it can be presented in a quantitative analysis of the percentages described in the following Table 4.

The data above explained that x is the total score of the answers and xi is the total ideal score, while P% is the result of x and xi. x can be said to be 44 based on the number of values obtained in the questionnaire. While 50 is the feasibility score multiplied by the number of questions. So that a value of 88% is achieved with the qualification level of product validity “Very Decent”.

Based on the results of the expert test validation that has been carried out, in general it can be concluded in the graph as follows:

The graph above shows the eligibility percentage of media experts at 88.57%, with the qualification “very valid” without revision. The results of the validation by linguists show a percentage of 90% with the qualification “very valid” without revision. Meanwhile, the content expert chart shows a percentage of 88% with the qualification “very feasible: without revision.” Based on this percentage, the average obtained from several expert tests is 89% with very decent qualifications (Fig. 3).

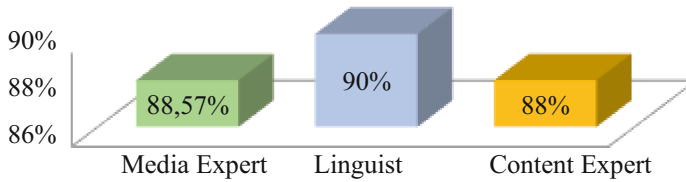


Fig. 3. Feasibility Graph of Expert Validation Results

3.5 Media Effectiveness

The effectiveness of the products used can be seen and proven through the results of small- group trials and large-group trials. The trial was carried out using a pretest and posttest [9]. With the pretest and posttest, the increase in students' learning understanding did not show drastically. However, the increase occurred gradually.

The effectiveness of this development product can be seen from students' level of understanding in capturing the explanation of the material in the storyboard-telling media. Several grade 3 students of MI Muhammadiyah 04 Moropelang showed interest in the development of products developed by researchers. With the development of storyboard telling media, it is hoped that students can better understand learning through what they catch themselves.

3.6 Small and Large Group Trials

The small group trial was a trial conducted by researchers involving 5 grade 3 students at MI Muhammadiyah 04 Moropelang as test subjects.

Suggestions and input were obtained from students, including 1) in terms of color design displayed on the media it was less attractive, 2) Audio or sound on the media was not optimal so students could not hear clearly the discussion on the material. In this regard, it's necessary to make any improvements or revisions regarding the color and audio design of the storyboard telling media so that students can understand the material in the media.

Sudjana states that there are three categories of understanding that refer to Bloom's taxonomy, namely: 1) low level, 2) medium level, 3) high level. Students can be said to understand if they can fulfill the indicators of learning understanding including, remembering, recalling, and concluding the material that has been presented [10].

After conducting small group trials, the researchers conducted large group trials. The large group trial was a final stage trial conducted by researchers involving 20 grade 3 students at MI Muhammadiyah 04 Moropelang as test subjects. The results of the large group trials obtained a total pretest score of 1285 with an average score of 64.25 while the total posttest score was 1805 with an average score of 90.25 each of 20 students. Obtaining these data can be concluded that there is an increase in students' understanding of learning using storyboard telling media which is drawn in the following diagram:

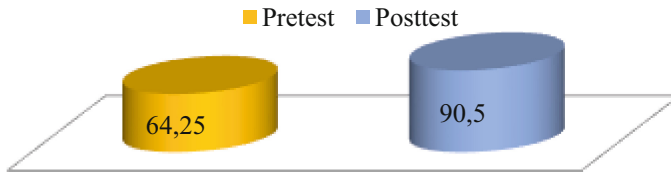


Fig. 4. Increasing students' understanding of large group test

Table 5. Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest	64.2500	20	7.30447	1.63333
	Posttest	90.2500	20	8.65645	1.93564

Table 6. Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Pretest & Posttest	20	.523	.018

3.7 Improving Student Learning Understanding

Based on the Fig. 4, there is an increase in the average student score on SKI learning material "Events that accompanied the night of the Prophet's birth" using Storyboard telling media, the average pretest score was 64.25 and the posttest average score was 90.25. So that there is a general increase of 40.85%.

3.8 Paired Sample T-test Pretest and Posttest Results

Based on the pretest and post-test data obtained, the researcher then analyzed the data using the Paired T-test (Table 6). Researchers conducted a Paired T-test with the help of the IBM SPSS Statistics application [11]. The test was conducted to determine whether there was a significant increase in students' learning understanding through hybrid learning- based storyboard telling media. The results obtained on (Table 5).

The output from the paired sample test can be seen through the sig table. (2-tailed) with the following explanation:

a. If the probability value (likelihood) is <0.05 , the storyboard telling media based on hybrid learning has a significant effect on students' understanding of SKI learning about the material "events that accompanied the night of the Prophet's birth".

b. If the probability value (likelihood) is >0.05 , the storyboard telling media based on hybrid learning does not have a significant effect on students' learning comprehension in SKI learning about "the events that accompanied the night of the Prophet's birth".

Based on the table of paired sample t-test results above, it shows a sig probability value (2-tailed) of 0.000. So that $0.000 < 0.05$, it can be concluded that storyboard telling

Table 7. Paired Samples Test

Paired Differences	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
Pair 1 Pretest - Posttest	-26.00000	7.88069	1.76218	-29.68828	-22.31172	-14.754	19	.000

media based on hybrid learning has a significant effect on students' learning comprehension in SKI learning material "events that accompany the night of the Prophet's birth" in class 3 MI Muhammadiyah 04 Moroplang (Table 7).

4 Conclusion

The percentage of due diligence results in the study stated as follows: media experts 88.57%, linguists 90%, and content experts 88% with an average eligibility of 89%, so the product of Hybrid Learning-based Storyboard Telling media development is said to be very feasible to implement in class 3 MI Muhammadiyah 04 Moropelang students to improve student learning understanding.

The results of small-group and large-group tests were carried out by researchers to see the effectiveness of the media. The results obtained from the large group test, the average value of the pretest was 64.25 and the posttest was 90.25 so there was a general increase of 40.85%. The data were analyzed using paired sample t-test analysis. If the probability value is <0.05 , the storyboard-telling media has a significant effect on increasing student learning. Conversely, if the probability value is >0.05 , then there is no significant effect on increasing student learning understanding. Based on the test results it is known that the probability value is $0.000 < 0.05$, so the researcher can conclude that storyboard-telling media based on hybrid learning can be said to be effective in terms of the significant influence on students' learning comprehension in SKI class 3 subjects MI Muhammadiyah 04 Moropelang.

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