

Development of Interactive Multimedia Based on Explanation Text Materials Using Adobe Animate

DOI: <https://doi.org/10.47175/rielsj.v4i2.718>

| May Syarah^{1,*} | Mara Untung Ritonga² | Syarifah³ |

¹ Jurusan Pendidikan Dasar,
Pascasarjana, Universitas
Negeri Medan, Indonesia

^{2,3} Universitas Negeri Medan
Indonesia

Maysyarah0521@gmail.com

ABSTRACT

This research is a research and development research on interactive multimedia-based explanatory text that aims to determine the validation, practicality and effectiveness of the product developed. Development of Interactive Multimedia -Based Explanation Text Materials Using the Procedure for Developing ADDIE Model. The ADDIE development model has 5 steps, namely: Analyze, Design, Development, Implementation, and Evaluation (Evaluation). The results showed that effectiveness was obtained based on increased student learning outcomes after pretest and posttest with N-Gain of 0.65 'medium' criteria. In the completed student pretest as many as 7 out of 25 students after using a posttest product and students who completed 22 out of 25 students. Mastery learning with a percentage value of 88% with the 'very good' category. It can be concluded that student learning outcomes increase after using the teaching material for interactive and effective multimedia -based explanatory texts.

KEYWORDS

teaching material; interactive multimedia; ADDIE; adobe animal

INTRODUCTION

The 2013 curriculum has three domains, namely the domain of attitudes, the domain of knowledge and the domain of skills. This is attached to Permendikbud number 54 of 2013. The subjects contained in the 2013 curriculum are Indonesian. Learning Indonesian play a role in developing language skills and positive attitudes towards the language of unity, namely Indonesian.

Indonesian language learning contains text-based learning material is one of the implementation of the 2013 curriculum that has been applied at various levels of education in Indonesia. The purpose of implementing this text learning is expected to be able to produce writing and use text according to their social goals and functions. Learning Indonesian oriented text can provide opportunities for students to develop thinking skills because each text has a different thinking structure.

Text is a complete expression of the human mind in which there are situations and contexts (Setyaningsih, 2019: 1). According to Priyatni (2014: 7) the text can be interpreted as utterance or writing that has meaning, which makes ideas intact. Arranging text for a particular purpose must choose the selection of the shape and structure of the text used so that the message contained in the text can be conveyed. Text in Indonesian various forms and types, there are at least 3 elements that must be contained in a text, namely content, syntax and pragmatic (Silvia & Bukhori, 2021).

One of the texts learned in elementary school students is the explanatory text. Barwick (2006: 50) says that "an explanation text is to explain how and why something in the world happened, it is about acts rather than about things". From the expert opinion it can be

concluded that the explanatory text is a text created to provide an explanation of how and why something happens (Alimah: 2018).

Studying explanatory texts is not only a demand for lessons in school, but many phenomena or events that can be understood through this text. For example if there is a natural disaster, traffic accidents and other events found in print and electronic media, the text used must be an explanatory text. By having the ability to write or understand the explanatory text can disseminate the author's understanding of a process to others.

Understanding the explanatory text means you have to know the structure of this text and the correct way of writing. By having a good understanding of the explanatory text, one can write and produce a correct and beneficial explanation for other people Rimayanti, (Ade Ina & Jaja, 2018). A good explanatory text includes text structures that are easy to understand the reader, so that the reader can understand the processes of things that occur systematically. Explanation texts are not only useful for educational demands, explanatory texts can be applied in the work environment or social environment of students in the future (Ritonga, Mara Untung, et al, 2021).

Based on the results of the initial observations at SDS Al-Wasliyah 15 Glugur Darat I found several obstacles in the thematic learning process, especially in Indonesian language material. There are several obstacles experienced by teachers in teaching thematic learning using explanatory texts. The explanatory text is used as a bridge to understand other materials, such as Natural Sciences, Social Sciences and PPKN. Constraints experienced by teachers and students during learning based on observations made, namely: 1) The teacher is still less able in integrating text learning in Indonesian into other materials, the teacher only asks students to read the text and answer the questions contained in the thematic book that causes a lack of understanding students with the material presented; 2) The use of technology -based teaching aids is rarely used by teachers because of the limited ability of teachers in applying digital media in learning and 3) Lack of enthusiasm of students in following learning that only reads text and answering questions from books, it can be seen from students' attitudes during observations . 4) Furthermore, data is obtained in the form of student grades, student completeness in theme 6 Subtheme 1 is 40% with students who completed only 10 out of 25 students. This shows that student learning outcomes are still not seen from more than half of students who are incomplete.

In addition to the above problems, textbooks used by special teachers of explanatory text materials do not significantly support the achievement of the objectives of learning, basic competencies and indicators of competency achievement (Luo, X, 2020). The lack of textbooks is centralistic and not contextual, which causes less meaningful learning. With contextual material can encourage students to understand the relationship between their knowledge and its application in everyday life.

The use of teaching aids such as learning media and teaching materials in developing teaching materials in accordance with student characteristics is needed to overcome the problems that have been explained. Therefore it is necessary to develop an explanatory text teaching material using Interactive Multimedia assisted by Adobe Animate. Electronic learning media can increase student interest in learning, because digital media can load images, sound and animation that is interesting, it can be proven based on the many development of learning media and digital -based teaching materials that have been carried out. One of the digital learning aids that can be used to support learning activities is interactive multimedia. Interactive multimedia is a computer -based media that can contain several media components such as images, audio and animation and other types of media in the form of digital (Alshadan, Abdulaziz, et al, 2014). The learning process using digital

media today began to be a solution in dealing with problems that often arise in every learning process.

RESEARCH METHODS

This research is a development research or known as Research and Development (R&D) (Sugiyono, 2017). This research was conducted at SDS Al-Washliyah 15 Glugur Darat I which is on Jalan Umar No. 95 Glugur Darat I, East Medan District, Medan City, North Sumatra Province. This study will be carried out in the even semester of the 2022/2023 school year precisely in January to June 2023 in class V.

The subject of this study was a class V student of SDS Al-Wasliyah 15 Glugur Darat I, East Medan as many as 25 students consisted of 19 male students and 6 female students. This researcher is a study and development that uses the ADDIE model. The ADDIE model was developed by Robert Maribe Branch (2009) which consists of five stages described on the following concept maps.

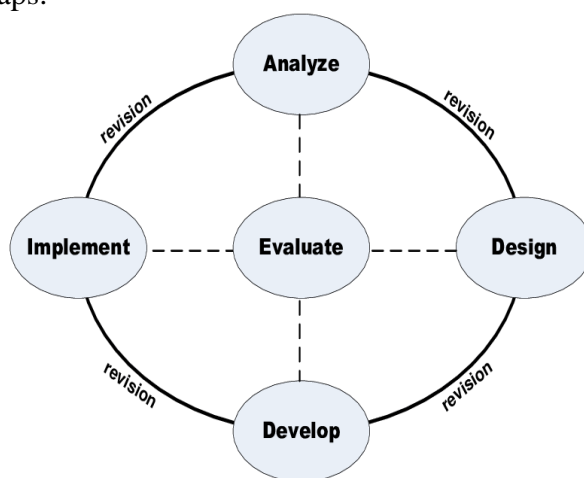


Figure 1. Stages of ADDIE's Development Model

Analysis

Analysis is related to the analysis of work situations and the environment so that products can be found. At this stage, identification of the cause of the problem of learning in learning and doing pre-planning that decides about subjects that will be used as the contents of the discussion on the product.

Design

The design stage is a product design activity in accordance with what is needed. At this stage consists of 3 steps, namely:

- The preparation of a benchmark reference test, is the first step to connect the analysis and design stage. The test is prepared based on the results of the formulation of learning objectives. This test is a measurement tool to find out changes in student knowledge after conducting teaching and learning activities using teaching materials developed.
- Format selection, this can be done by reviewing existing formats. The output produced by Adobe Animal is a teaching material for explanatory text using interactive multimedia products and will be made in the form of software that can be used on smartphones or laptops/computers.

- Product design is the preparation and manufacture of products in the form of interactive multimedia using the Adobe Animate application in accordance with the steps of making interactive multimedia described previously.

Development

Development is a product manufacturing and testing activity. The development stage is the product to realize the product.

Implementation

Implementation is the activity of using products in a predetermined research site. First students are given pre-test to test students' knowledge and ability in learning explanatory text. Furthermore, class teachers conduct learning with the help of interactive multimedia -based explanatory text learning materials that have been developed. After learning using interactive multimedia-based explanatory teaching material, students do the test using the questions that have been provided. The problem has been compiled based on indicators of competency achievement to see the level of effectiveness of the use of the product developed. Data The Effectiveness of the Use of Interactive Multimedia-based Explanation Text Materials is obtained based on the test of the learning outcomes test by calculating the percentage of classical completeness based on the school KKM which is 70.

At this stage the researcher also spreads a response questionnaire to teachers and students that contain points of questioning regarding the use of interactive multimedia-based explanatory text products in learning that aims to determine the practicality of product use.

Evaluation

Evaluation is an activity to assess whether each step of the activity and product that has been developed is in accordance with the specifications or not. It is intended that the interactive multimedia-based explanatory teaching material that is developed is truly appropriate and can be used by other schools.

Data collection techniques used in this study are observation, questionnaires, and tests. In this research activity the data to be obtained is: 1) in the form of responses and suggestions for improvement from expert lecturers to teaching materials in interactive multimedia -based explanatory texts, 2) results of testing teaching materials based on interactive multimedia explanatory texts used by students.

RESULTS AND DISCUSSION

This research produces interactive multimedia -based explanatory teaching materials using Adobe Animate. The purpose of developing this product is to determine the effectiveness of product use. The product validity developed was obtained by conducting validity tests to material expert lecturers and media experts. Practicality The use of products is known based on the results of the teacher's response and student response. While effectiveness is obtained based on increased student learning outcomes after using the product. This product was developed for class V students, especially at SDS Al-Washliyah 15 Glugur Darat I. The following were the results of research obtained after conducting research.

Testing to get the effectiveness of the product developed using pretest and posttest. This is tested to have 15 multiple choice questions that have been tested for validity, reliability, difficulty index and difference power. Pretest is done before using interactive multimedia -based explanatory text material. Whereas for posttest tested after using interactive multimedia-based explanatory text material that has been developed. Increasing student

learning outcomes after using the product can be seen based on the N-Gain value in the following table:

Table 1. Student Pretest-Posttest Results

No.	Name	Pre-Test	Post-Test	A (Post test - Pre test)	B (Maximum score- Pre test)	N-Gain (A/B)	Category
1	Respondent 1	60	80	20	40	0.5	Middle
2	Respondent 2	60	86	26	40	0.65	Middle
3	Respondent 3	73	93	20	27	0.74074	High
4	Respondent 4	60	86	26	40	0.65	Middle
5	Respondent 5	40	60	20	60	0.33333	Low
6	Respondent 6	53	86	33	47	0.70213	High
7	Respondent 7	60	80	20	40	0.5	Middle
8	Respondent 8	86	100	14	14	1	High
9	Respondent 9	60	80	20	40	0.5	Middle
10	Respondent 10	50	86	36	50	0.72	High
11	Respondent 11	40	50	10	60	0.16667	Low
12	Respondent 12	80	100	20	20	1	High
13	Respondent 13	33	60	27	67	0.40299	Middle
14	Respondent 14	50	73	23	50	0.46	Middle
15	Respondent 15	66	80	14	34	0.41176	Middle
16	Respondent 16	73	93	20	27	0.74074	High
17	Respondent 17	66	86	20	34	0.58824	Middle
18	Respondent 18	66	86	20	34	0.58824	Middle
19	Respondent 19	60	66	6	40	0.15	Low
20	Respondent 20	40	86	46	60	0.76667	High
21	Respondent 21	70	93	23	30	0.76667	High
22	Respondent 22	53	86	33	47	0.70213	High
23	Respondent 23	46	70	24	54	0.44444	Middle
24	Respondent 24	70	93	23	30	0.76667	High
25	Respondent 25	80	93	13	20	0.65	Middle
TOTAL				557	1005	0.65	Middle

Based on the results of the N-Gain calculation using Microsoft Excel obtained an average gain value of 0.65 which is included in the medium category. Furthermore, the completeness of student learning outcomes was obtained by 88% with the 'Very Good' criterion. With these average results it can be concluded that the use of the explanatory text teaching material using interactive multimedia is effectively seen based on increasing student learning outcomes through the N-Gain Score analysis.

The Effectiveness of the Use of Interactive Multimedia Based Explanation Text Materials

It is known that student learning outcomes increased based on the pretest posttest. Pretest questions are done before the use of products and posttest is given after the product is used in learning. Based on the results obtained, the use of explanatory text teaching materials using interactive multimedia can improve student learning outcomes from the average Gain value of 0.65 which is included in the 'medium' category.

After doing the highest pretest of 86, the middle value is 60, the lowest value is 33. KKM at SDS Al Washliyah 15 Glugur Darat I is 70. Student scores that do not reach KKM at the time of 18 students from 25 students. While the grades that passed the KKM are 7 students out of 25 students. The value that is the most obtained by children is 60 students, the value does not reach KKM. Based on this information, student learning outcomes before using the product are still incomplete because they have not yet reached the KKM value.

Previously, students had learned about the material, after asking the class V teacher the learning activity process carried out when learning about the material, namely the teacher only told students to read the text in the book and answer the questions published in the Thematic Book theme 6 Sub-theme 1 Learning 1, 2 and 3. The learning outcomes obtained after conducting an evaluation are still low.

Furthermore, the posttest value was obtained after learning using interactive multimedia-based explanatory teaching materials, namely the highest score, the middle value was 86, and the lowest score was 50. Students who passed the KKM were 22 of 25 students. Students who are incomplete or reach KKM as many as 3 out of 25 students. The most obtained value is 86 with 8 out of 25 students.

When compared to the pretest and posttest scores, the average student score increased, from 18 students who were not complete to 3 students. After being distributed between the value of A (posttest-test) with the value of B (maximum scor-pretest) then obtained n-gain of 0.65 in Table 3.8 Criteria for Increasing Learning Outcomes The value is included in the score of $0.30 < g_s \leq 0.70$ 'With 10 high category students, 12 students with medium categories and 3 students in the low category.

Learning completeness obtained a value of 88% with the 'Very Good' criterion. When compared with the data on observations of student grades on theme 6 Subtheme I obtained a percentage of 40% with the criteria 'not good'. When compared with learning after using the product, learning completeness increases by 48%. It can be concluded that student learning outcomes increase after using interactive multimedia-based explanatory text teaching materials and effective products for use.

CONCLUSION

Interactive multimedia-based explanatory teaching teaching material that has been developed meets effective criteria with increasing student learning outcomes, these results can be seen from N-gain of 0.65 with interpretation into 'medium' criteria with 10 medium category students, 12 students with medium categories and 3 students with low categories. And learning completeness with a percentage value of 88% with the 'Very Good' category. It can be concluded that student learning outcomes increased after using interactive multimedia-based explanatory text teaching material seen from the number of students who were complete than incomplete.

REFERENCES

- Alimah. (2018). Pengembangan Bahan Ajar Menulis Teks Eksplanasi Dengan Pendekatan Kooperatif Model Stad Kelas Xi Smk Negeri 6 Samarinda. *LOA: Jurnal Ketatabahasaan dan Kesusastraan*, 13(1). 120-128, <https://doi.org/10.26499/loa.v13i2.1670>
- Alshadan, Abdulaziz, et al. (2014). Multimedia Based E-Learning: Design and Integration of Multimedia Content in E-Learning. *iJet*, 9(3): 26-30.
- Barwick, J. (2006). Targeting Text upper Level. Singapore: Blake Education.
- Branch Robert Maribe. (2009). Instructional Design: The ADDIE Approach. New York: Spinger Science & Business Media, LLC.
- Luo, X. (2020). An Empirical Study of the Effect of Multimedia Information Technology on College English Teaching. *Randwick International of Education and Linguistics Science Journal*, 1(1), 62-66. <https://doi.org/10.47175/rielsj.v1i1.30>
- Priyatni, E. T. (2014). Desain Pembelajaran Bahasa Indonesia dalam Kurikulum 2013. Jakarta: PT Bumi Aksara.
- Rimayanti, Ade Ina & Jaja. (2018). Pengembangan Bahan Ajar Teks Eksplanasi Berdasarkan Berita Media Massa Cetak. *Tuturan*, 7(2), 857-862, <http://dx.doi.org/10.33603/jt.v7i2.1738>
- Ritonga, Mara Untung. Et al. (2021). Learning the Indonesian Language through Fictional Text Based on Ecological Literacy (Malay-Langkat) as an Effort to Realize Literate Generation. *Asian Journal of Education and Social Studies*, 21(4): 44-57. [10.9734/ajess/2021/v21i430516](https://doi.org/10.9734/ajess/2021/v21i430516)
- Silvia & Bukhori, Imam. (2021). Pengembangan Mobile Learning Menggunakan Adobe Animate Cc Untuk Meningkatkan Motivasi Dan Hasil Belajar Peserta Didik. *Ecoducation*, 3(1). 110-124, <https://doi.org/10.33503/ecoducation.v3i1.1252>
- Sugiyono. (2017). Metode Penelitian dan Pengembangan (Research and Development/ R&D). Bandung: Alfabeta.
- Setiyaningsih, Ika. (2019). Mengenal jenis-jenis teks. Yogyakarta: PT Intan Pariwara