

# Development of Media Based Electronic Book Local Wisdom to Improve Elementary Students' Literacy

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## ABSTRACT

*E-book* is a digital-based learning media that visualizes abstract material into visual form. The purpose of this research is to develop *E-book* learning media based on local wisdom. The development of this product uses an adaptation of the research and development model (Research & Development) using the ADDIE model. The result showed that the development of valid *E-book* media from material validator experts was 95% and 87% of learning media with very valid criteria. The result of the effectiveness of classical completeness from a pretest value of 6% increased to 94% very good category. The results of the normalized N-gain test from an average result of 0.627 are in the medium category with criteria quite effectively used in increasing the reading literacy of fifth grade students.

**Keywords:** *E-book, local wisdom, reading literacy*

## INTRODUCTION

Natural resources in Indonesia needs attention and well thought. The quality of human resources is very influential on the quality of education. Implementation of education must be able to foster quality human resources Dewi (2021)). The opinion of several experts states that the quality of education in Indonesia is still far behind from other developing countries. Factors that influence include curriculum factors, educational policies, educational facilities, use of technology and information, and communication in the world of education Fahrizandi (2019).

Factors influencing the success of learning in Indonesia need to be improved by following technological developments where the use of media used to support student learning success is also developing Filivani (2021). Various technology-integrated learning media have been created as a solution offered to help overcome problems both encountered by teachers and students during the learning process Fahyuni (2015). However, teachers have not utilized innovative learning media, especially after Covid - 19, especially in Pati district, there are still many teachers who have not been able to utilize technology-integrated learning media as they should be applied in education today, especially those that require a lot of media in conveying language subject matter. Indonesia and IPS. For this reason, an innovative learning media is needed, where the learning media is expected to help and improve the quality of learning to be better, interesting and enjoyable Klau (2022).

Innovative learning media can of course be used according to the needs of students so that they can be well received by Sumaryanti (2022). In addition, learning media plays an effective role in improving students' reading skills in understanding the content of the material being studied. Hapsari (2019) revealed that the development of media is growing over time, learning media is needed in the teaching and learning process so that the media can be packaged more attractively. Based on the results of observations and interviews at SDN Bakaran Wetan 01 there is no availability of innovative reading media

which has an impact on students' reading literacy. still not enough. The books provided by the school include learning books, fiction books, and non-fiction books. Students are more interested in reading if the books they read have pictures, bright coloring. Efforts made by the teacher are efforts that can be made by the teacher, one of which is by developing interactive media *E-book*.

*E-book* is a media that can visualize abstract material into visual form and can also be animated so that it makes it easier for students to understand the material and can attract more students' attention to participate in the learning process which can ultimately increase the learning success of students Karyada (2022). Achmad (2018) states that "students who learn by utilizing interactive ebook media, their learning motivation and academic achievement can increase, compared to students who only learn to use textbooks" Aditya (2019).

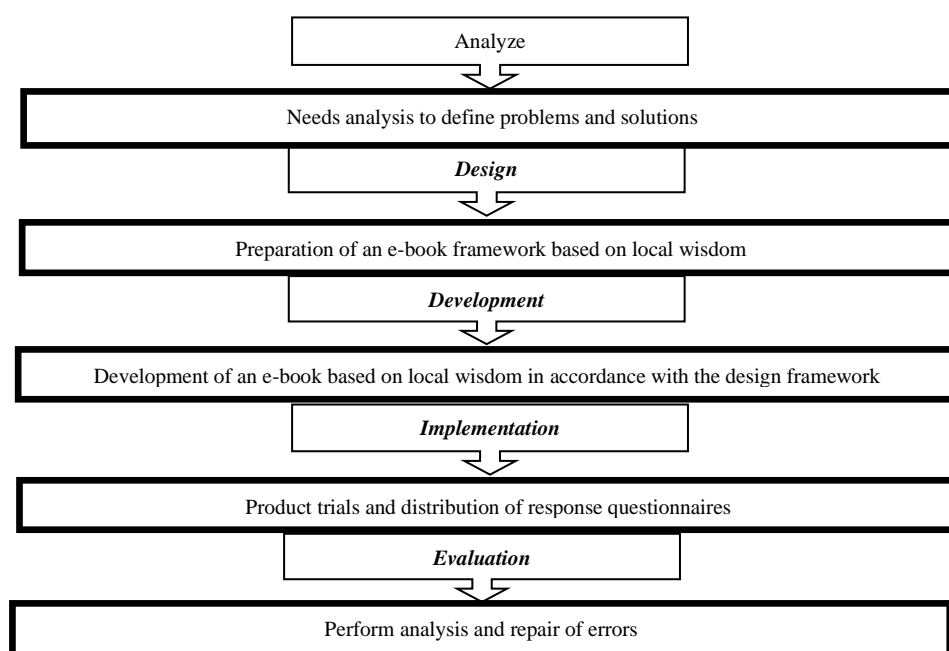
*E-book* learning media can be packaged with cultural values, heroic attitudes and cultural heritage that are of good value in the surrounding community, namely with local wisdom which has been guarded from generation to generation by the surrounding community. With local wisdom-based *E-book* media, it is hoped that it can increase students' reading literacy. StudyGogahu & Prasetyo (2020) stated that the results of the

product development carried out were effective for use in reading literacy activities. The results of the validation of material experts obtained a percentage of 81% with a very high and feasible category and the results of the validation of media experts 1 percentage of 67% and the validation of media experts 2 with a percentage of 61% so that they were categorized as high and suitable for use.

Based on the description above, analyze the problem of the media used by students, look for solutions to be solved, and look for evidence of previous research as a comparison of success rates with the title "Development of Media Electronic Books Based on Local Wisdom to Increase Reading Literacy for Elementary School Students".

## RESEARCH METHODS

The research method used is research and development (R&D) developed by Dick and Carey (1978). The stages used were the ADDIE development model, the One Group Pretest-Posttest trial design. The design procedure of this model has five stages which include the stages of analysis (analyze), design (design), development (development), implementation (implementation), and evaluation (evaluation). ADDIE's stages are explained in chart I:



The research subjects were conducted in class V students at SDN Bakaran Wetan 01, totaling 52 students. The data were obtained from parties at the research location, namely SDN Bakaran Wetan 01, including students in class VA and VB, educators in class VA and VB, the learning environment, as well as facilities and infrastructure and media expert validators and material expert validators.

Data collection techniques are data from material experts, media experts, data on the feasibility and effectiveness of students' reading literacy. The criteria for the percentage of students analyzing the effectiveness of local wisdom-based *E-book* media to increase reading literacy are in table I:

**Table 1 Qualification Assessment Categories**

No.	Mark	Percentage(%)	Criteria	Predicate
1	$89 < x \leq 100$	$89 < x \leq 100$	Very good	A
2	$79 < x \leq 89$	$79 < x \leq 89$	Good	B
3	$70 < x \leq 75$	$70 < x \leq 75$	Enough	C
4	$x < 70$	$x < 70$	Need Guidance	D

## RESULT AND DISCUSSION

*Electronic book* media based on local wisdom to improve reading literacy of elementary school students is a development with the latest innovation intended to provide information related to the characteristics of the media that has been developed. Local wisdom-based *electronic book* media contains supporting pictures. The material presented is local wisdom material that exists in the environment around students. The form of evaluation refers to minimum competency assessment questions which consist of complex multiple choice questions, multiple choice, description, matchmaking, and true/false according to the basic competencies in theme 3 of Indonesian Language and Social Sciences lesson content on Healthy Food. The following is the contents of an *electronic book* media based on local wisdom for class V in 3 contents of Indonesian and Social Sciences lessons:

Figure 1. The material presented



Figure 1 is the material presented in the electronic book media that tells the story of local wisdom in the Juwana sub-district. The objective of the material is to use local wisdom so that students maintain the local wisdom in their environment. In addition, the material presented is so that students can improve reading literacy. The next characteristic development is the E-book which is presented as shown in Figure 2.

Figure 2. E-book material



Electronic book based on local wisdom tells the story of Nyai Sabirah, Bakaran Wetan Village. The role of understanding reading literacy in one story adapts social studies material to local wisdom in the students' environment in Pati district. Furthermore, media development includes local wisdom videos. The purpose of presenting the video is to maximize learning objectives teachers in conveying messages and subject matter to students so that messages are easier to understand, more interesting and more fun for students.

Figure 3. Local Wisdom Video



Electronic book learning media based on local wisdom to improve reading literacy to find out the validity of the material and media is tested for validity. The validity test was carried out on material experts and media experts. The purpose of doing validity is to know the quality of the media being developed besides that to find out the deficiencies in the material and the media presented. The following are the results of material validation and learning media experts.

Table 2 Material Validation Results

Total Score	Max Score	Percentage
57	60	95%

Table 3 Results of Learning Media Validation

Total Score	Max Score	Percentage
52	60	87%

Based on the results of the validity in tables 2 and 3, the results of the validity of the material obtained a score of 57 out of a maximum score of 60 with a percentage of 95% entering the very valid category, while the results of the validity of the learning media obtained a score of 52 out of a maximum score of 60 with a percentage of 87% in the very valid category. Acquisition of percentages made to *electronic book* learning media experts based on local wisdom to increase reading literacy. The material and media developed are compatible so that *electronic book* media is suitable for use.

Media validity *electronic book* based on local wisdom to improve reading literacy declared valid by expert validators. Then do the effectiveness test, testing the effectiveness is done using the pretest-posttest. The

questions used are tested for quality first, in order to get good quality questions. Testing the questions consists of testing the validity, reliability. Here are the test results.

Table 3 Test the Validity of Question Items

Criteria	Question Number	Amount
Valid	1,2,3,4,6,7,8,9,10,12,13,14,18,19,20	15 points
Invalid	5,11,15,16,17	5 points

Based on table 3 the results of the validity of the 20 questions there are 5 questions that are invalid at numbers 5,11,15,16,17 while the valid questions are 1,2,3,4,6,7,8,9,10,12, 13,14,18,19, and 20. The next step is to test the reliability test to determine the reliability index. To find out whether the test is reliable or not, the researcher uses the criteria according to Sudijono (2012: 209) with a limit of 0.70. If the reliability test result is equal to or greater than 0.70, it means the test is reliable. The reliability result was 1.93 for the very reliable category entry test.

The results of the effectiveness of reading literacy of fifth grade students were obtained from the pretest and posttest score data. The pretest value is the value that has not used *electronic book* media. The following is table 4 of the pretest results.

Table 4 Results of Pretest Classical Completeness Scores

Amount	2616
Max Score	5200
Complete Presentation	12%
Infinite Preset	88%
Score average	50,30

Based on the results of the pretest, the classical completeness score only reached 12%; the reading literacy of class V students was not maximized. Then do the provision of *electronic book* learning media based on local wisdom. The following is table 5 posttest results.

Table 5 Results of Posttest Classical Completeness Scores

Amount	4239
Max Score	5200
Complete Presentation	94%
Infinite Preset	6%
Score average	81.51

After being given learning media *electronic book*. Based on local wisdom, students'

classical mastery scores increased from 12% to 94%, meaning that there was an 82% increase. The classical percentage obtained is in very good category. Which means that *electronic book* learning media based on local wisdom can improve reading literacy. To find out how to measure the increase in the average pretest-posttest results, the normalized N-Gain test was carried out. The following is the normalized N-Gain formula

$$N - \text{Gain} = \frac{\text{skor rata-rata Posttest} - \text{skor rata-rata pretest}}{\text{skor maksimum} - \text{skor rata-rata pretest}}$$
$$N - \text{Gain} = \frac{81,51 - 50,30}{100 - 50,30}$$
$$N - \text{Gain} = 0.627$$

The results of the N-Gain calculation above, learning using *electronic books* based on local wisdom shows an average pretest result of 50.30 and a posttest result of 81.51 so that the N-Gain increase is 0.627. The increase in reading literacy skills can be seen from the N-gain value category, the reading literacy ability test scores between 0.3-7. The N-Gain test of participants' reading literacy skills is in the medium category, indicated by the pretest and posttest scores. this shows that the application of *electronic book* learning media based on local wisdom can improve the reading literacy skills of class V theme 3 students.

Product effectiveness *electronic book* based on local wisdom is measured through increasing reading literacy skills which will be developed according to research objectives Darihastining (2020). Analysis of students' literacy skills in reading literacy as a person's ability to interpret the reading material used starting from browsing, searching, processing, and understanding information from reading sources that are useful for life skills Helwa (2020). Testing the effectiveness of students' reading literacy skills was carried out by researchers, namely calculating pretest and posttest scores.

## CONCLUSION

The results of this study indicate that the learning media is *electronic books* based on local wisdom can increase the reading literacy of fifth grade students on theme 3 Indonesian language and social studies subject matter. It is hoped that the results of the research that has been carried out will enable teachers in Indonesia to develop more innovative learning media that are more practical, effective, and efficient. In developing teaching materials that are easy to use and easily understood by students.

### Declaration by Authors

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