


Development of Interactive Learning Media Assisted by Websites for Intensive Reading in Grade IV of Elementary School

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A B S T R A C T

This study was motivated by the low intensive reading ability of fourth-grade elementary school students and the limited use of technology-based learning media in Indonesian language learning. The purpose of this study was to develop an interactive learning media assisted by a website to improve students' intensive reading skills. This research used a Research and Development method with the ADDIE development model consisting of analysis, design, development, implementation, and evaluation stages. The subjects of this study were fourth-grade students in several elementary schools in Payakumbuh City. The product developed was an interactive website-based learning media containing learning materials, instructional videos, quizzes, and evaluation activities. The validation results from material, language, and media experts showed an average validity score of 90%, which indicated that the product was very valid. The practicality test showed that the teacher response reached 86% and the student response reached 82.53%, both categorized as very practical. The effectiveness test also indicated an improvement in students' learning outcomes after using the developed media. Therefore, the website-assisted interactive learning media was considered valid, practical, and effective for use in intensive reading learning for fourth-grade elementary school students.

Keywords: *Interactive Learning Media, Website-Based Learning, Intensive Reading, Elementary School, Media Development.*

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INTRODUCTION

Learning tools are one of the factors that play an important role in teaching and learning activities. Learning tools are a set of learning resources or tools that allow students and teachers to carry out teaching and learning activities well. Learning tools will affect the success of the learning process in the classroom, because they provide convenience and can help teachers in preparing and carrying out teaching and learning activities (Munawarah, 2017).

Learning tools known as a set of learning resources are used by teachers and students to carry out learning activities. A teacher who will teach in the classroom needs various learning tools that will help and facilitate the learning process, as well as provide experience to students to achieve the goals that have been determined (Tanjung & Nababan, 2019). So that in managing learning, a teacher and students must need learning tools. In learning in schools, learning tools based on the independent curriculum are currently applied.

In the 21st century learning era, teachers must use technology-based learning media because it is essential to create a responsive and dynamic learning environment. Teachers in today's digital era are required to understand and utilize technology to create innovative and creative learning designs to help students better understand learning materials (Zahwa, 2022). Innovative and interesting learning reform and implementation are demands for teachers in improving the quality of learning (Arwin et al., 2019).

Indonesian language learning in elementary schools is a forum to develop students' ability to use language in accordance with the function of the language, especially as a means of communication (Yanto, 2020). Learning Indonesian in elementary school can provide basic language skills needed to continue education in secondary school and to absorb the knowledge learned through that language. In addition, learning Indonesian language to appreciate Indonesian literature (Hidayah & al., 2020).

Johan (2018) stated that reading is a must, which is very important not only in education but also in community life. Intensive Reading is an activity carried out by a person in reading carefully in order to understand reading or text quickly and accurately. According to Mariati (2018) skills mean the ability to use the mind or reason, while reading is the process of obtaining a message. The definition of intensive reading ability is the ability to understand in detail the content of reading in detail, accurately, and critically on a fact, concept, opinion, idea, experience, feeling and message. When reading, some readers usually read only one or only a few existing readings (Rahayu & Sidiqin, 2019). Intensive reading can make students' thinking skills improve (Murda & Purwanti, 2017).

However, intensive reading of grade IV elementary school students is still very low, as evidenced by the results of observations that have been made. Based on observations and interviews conducted by the researcher with Mrs. Sri Hardinawati, S.Pd as a grade IV teacher at SDN 36 Payakumbuh on January 14-15, 2025, it shows that: The intensive reading skills of students in grade IV are still low, students are only able to read the text without knowing what the text means and there are still students who are not fluent in reading. In addition, there is no special media to teach intensive reading so that students become bored during the learning process. The learning strategy for intensive reading carried out by teachers is still traditional. Furthermore, the observations and interviews that the author conducted with Mrs. Mayang Puspita Sari as a grade IV teacher at SDN 16 Payakumbuh on January 20, 2025, show that: in the use of learning media for intensive reading, teachers are still limited to teacher books and student books without adding internet materials. In addition, there are still students who are not fluent in reading, making it difficult to do intensive reading. Finally, the observations and interviews that the author conducted with Mrs. Nindya Oktaviani, S.Pd as a grade IV teacher at SDN 53 Payakumbuh on January 13 and 17, 2025 stated that: teachers only use teacher books and student books in the learning process. Teachers have not maximized the facilities provided by schools in carrying out the learning process. Students still have difficulty carrying out intensive reading.

METHOD

This writing uses the Research and Development (R&D) writing model. Sani (2022) states that "the development writing method is a systematic study that includes the process of designing, developing, and evaluating products, processes, or programs that must meet the criteria of internal effectiveness, consistency. However, according to Sugiyono (2017), "development writing is a writing method used to produce a specific product and test the effectiveness of that product."

Writing and development methods are often used in the development of technology or instructional systems. The focus of the writing is the development of learning systems, and the author uses R&D to develop learning systems. Learning design, evaluation, and learning model. Sani (2022) states that "Writing and development are also widely used to develop curriculum, teaching materials, modules, learning media, teacher development models, and learning management."

In the implementation of education, development writing has a suitable model to be applied. In this writing, the author chose the ADDIE development writing model. According to Mulyatiningsih (2019), the ADDIE 62 model is developed to design a learning system. There are 5 stages of the ADDIE development model, namely 1) Analysis, which is analyzing problems, user needs, and systems for teachers and students 2) Design, namely the design of the product to be developed 3) Development, namely the development and manufacture of

products 4) Implementation, which is the process of validating the test of experts and its application and 5) Evaluation, which is conducting an evaluation with the aim of completing the shortcomings and needs so that the product is suitable for implementation.

The preliminary study stage is the stage in finding and collecting information. The preliminary study conducted by the researcher was to make observations to elementary schools. The initial stage is a preliminary study conducted through observation in three elementary schools in Payakumbuh City, namely SDN 36 Payakumbuh, SDN 53 Payakumbuh and SDN 16 Payakumbuh. At this stage, the analysis carried out is an analysis of needs, curriculum, characteristics of students and learning media. After making observations, the author identified that the application of learning using interactive media has never been carried out in the learning process. Not only this, but the characteristics of students and the experience gained in the learning process must also be considered.

The design stages include several learning media development planning, including several activities, starting with the preparation of teaching modules in learning by examining initial competencies and learning outcomes to determine learning materials based on facts, concepts, principles, procedures, learning time allocation, learning goal flows and student assessment instruments, designing learning scenarios, or teaching and learning activities, selection of teaching module competencies, initial planning of learning tools based on subject learning outcomes, and designing learning materials. Next, the framework of interactive learning media assisted by *the website* is compiled, after which the author collects the materials needed according to the material to be made. At this design stage, planning will be carried out for the Development of Interactive Media assisted *by Websites* to Improve Intensive Reading Skills.

At the development stage, at this stage the framework that is still conceptual is realized into a product that is ready to be implemented. Planning of interactive learning media assisted *by websites* to discuss Indonesian language learning is intensive on narrative texts. Furthermore, validation was carried out by one material expert, one linguist and one media expert from the lecturers of the State University of Padang who are competent. If the interactive media developed is not valid, then revisions must be made to the teaching materials. However, if interactive media has been declared valid, then interactive media can be used in learning. After all stages of validation have been carried out and have been asked if they are valid for use, the multimedia products produced in the trial will be tested first before being applied in the writing school related to the practicality and effectiveness of this media in the trial school, namely in grade IV SDN 36 Payakumbuh.

The implementation stage is a stage to test products in the learning process that have previously been designed and validated in writing schools, namely grade IV SDN 16 Payakumbuh and SDN 53 Payakumbuh. The implementation of the use of interactive learning media assisted by this *website* begins with preparing all the facilities and infrastructure needed and conditioning the classroom environment. After the preparation of the steps for the equipment supply is complete, the author also applies interactive learning media with *the help of websites* that have been developed in the learning process.

Evaluation is the final step of ADDIE's learning system design model. Evaluation is a process carried out to provide value to the development of learning media in learning. The evaluation stage can only be carried out after the previous four activities have been completed. The evaluation stage is carried out to determine the level of practicality of learning media. The level of practicality in question is the convenience and feasibility of media products when used in the learning process being tested. The evaluation carried out at the implementation stage was carried out by asking teachers and students to fill out questionnaires/questionnaires as a response in using the media during learning.

FINDINGS AND DISCUSSION

The development of this learning media is carried out in Indonesian language subjects in grade IV of elementary school. This research produces a Website-assisted learning media product to be given to students in Indonesian language learning in grade IV of Elementary School which can be used in groups and independently with the help of laptops, mobile phones both Android and IOS-based.

This type of development is a type of development research using the ADDIE development model. This development model has five stages in its development, namely the first stage of analysis, the second stage of design, the third stage of development, the fourth stage of implementation and the fifth stage of evaluation. In accordance with the objectives and development procedures used in the research that has been carried out by the researcher, the following research results data are obtained

Analysis*Needs Analysis*

The first stage of analysis that the researcher conducts is needs analysis. This was done by researchers at SDN 36 Payakumbuh, SDN 53 Payakumbuh and SDN 16 Payakumbuh to find out the needs related to learning media in the independent curriculum in the classroom by conducting observations and using questionnaires for teachers and students. The results of the analysis of learning media needs that the researcher found were: (a) Teachers rarely use IT-based media in learning, because teachers only focus on teacher books and available student books. However, occasionally teachers only show learning videos taken from the internet and have not actively involved students in the learning process. (b) Students need the latest IT-based interactive learning media in accordance with the times. (c) Students need learning media with presentations that are easy to understand and interesting. (d) Students need learning media that is fun and can increase students' motivation to learn (Febrita & Ulfah, n.d.). (e) Students need learning media that is able to build an atmosphere in the classroom so that students are not bored.

Curriculum Analysis

The curriculum used by the researcher in the development of this learning media is the Merdeka curriculum. The purpose of curriculum analysis is to find out an overview of the design of learning media that is suitable to be developed in accordance with the independent curriculum. In developing this Website-assisted learning media, the researcher first conducted a curriculum analysis on subjects published in Indonesian on materials seeking information about daily life in narrative texts in grade IV of elementary school.

Student Analysis

The instrument for the analysis of student characteristics uses questionnaires taken from all students. The researcher analyzed the characteristics of students through observation with the homeroom teacher of grade IV and then carried out observation activities to collect questionnaire data. From the results of observation, it can be seen that the character of students has differences, grade IV students like and like learning that involves IT, using projectors, having concrete images of the material being taught, of course this is one of the reasons why the researcher took the title of this research.

Design

In this design stage, learning materials are made using the help of *websites* to produce interactive learning media (Sukiman, 2012). This is done as an effort to optimize the increasingly rapid development of technology, as well as to facilitate and assist the learning delivery process. The results of the website-assisted interactive media design are as follows: When opening the media, *the Website* <https://www.bukgurucacha.my.id/> provides the title page of Interactive media for Intensive Reading Grade IV Elementary School.

Development of Interactive Learning Media Assisted by Websites for Intensive Reading in Grade IV of Elementary School



Figure 1 Initial view of the website.

Website display of interactive learning media menu for intensive reading in grade IV elementary school

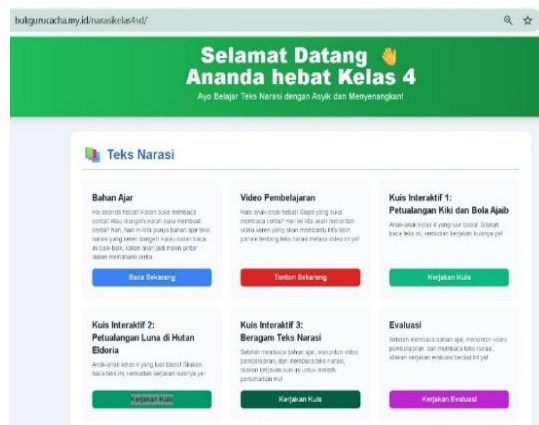


Figure 2. Learning Media Display

Display of teaching materials and learning outcomes

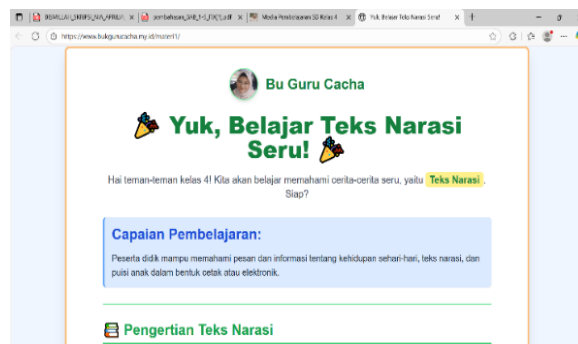


Figure 3. Display of Teaching Materials

Learning video page view



Figure 4. Learning Video Display

Quiz sheet page

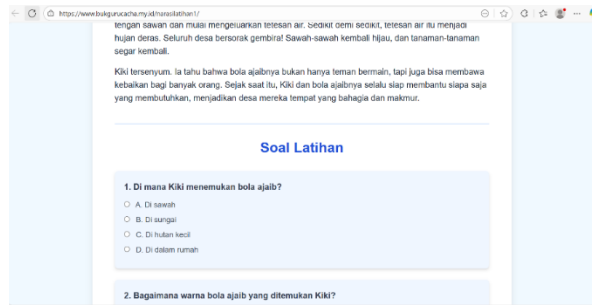


Figure 5. Quiz Page View

Evaluation work page

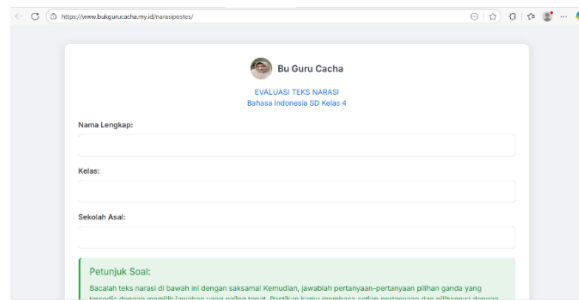


Figure 6. Evaluation Question Page View

Development

At the stage of developing website-assisted learning media on narrative text materials, learning media that has been designed by a team of experts is validated, and then after the results of expert validation are updated and declared suitable for use in research, the product is tested on teachers and grade IV students of SDN 36 Payakumbuh. This learning media is then revised based on the results of discussions and validator recommendations. The results of this revision are used to improve the learning media that has been created by combining all validator recommendations, resulting in a learning media with a valid website.

The following are the results of the validation of interactive learning media assisted by websites for intensive reading in grade IV elementary school:

Table 1 Validation Results

Yes	Validated aspects	Percentage	Remarks
1	Material validation	96%	Very valid
2	Language validation	84%	Very valid
3	Media members	90%	Highly Valid
Overall average		90%	Highly Valid

Formula:

$$\bar{X} = \frac{\sum xi}{n}$$

$$\bar{X} = \frac{96+84+90}{3}$$

$$\bar{X} = 90$$

Description:

$$\bar{X} = \text{average}$$

Σxi = the sum of the values of each validator

n = Number of validators

The data above shows that learning media using narrative text websites in grade IV of elementary school from material experts, linguists and media experts after revision meets the

criteria of very valid with a percentage of 90% which means that learning media can be used as a medium using Website narrative texts in grade IV elementary school (Arsyad, 2017).

Implementation Stage

Products that have been validated by validators that have been revised, then tested on students. The subject of the product trial was class IV SDN 36 Payakumbuh as many as 28 students. The trial will be conducted on July 22 and 23, 2025. Then the practicality test of the response of teachers and students was carried out by providing an assessment sheet in the form of a practicality questionnaire. Filling out the teacher's response questionnaire based on the results of the teacher's observations when the research conducted product trials and questions and answers were carried out after the trial related to the developed learning media. After conducting a trial and revising a little additional from the teacher, it was followed by a research that aimed to apply media using *the Website* to learning Indonesian language in grade IV of elementary school.

The collection of data on the practicality test of student responses was first carried out by explaining to students what is meant by Website-assisted learning media, the differences from other media that students have used and the researcher also explained how to use it in the learning process. Then the learning process was carried out using Website-assisted learning media that the researcher developed on the topic of seeking information on daily life in narrative texts. After students finish carrying out learning using Website-assisted learning media, then students are given a questionnaire containing statements related to Website-assisted learning media that have been used, this practicality questionnaire is filled out to see students' responses after using the media. The trial of Website-assisted learning media on the teacher response questionnaire obtained 86% results and the trial on the student response questionnaire obtained 82.53% results. So, it can be known that the results of the test of the response of teachers and students in grade IV of SDN 36 Payakumbuh are very practical, suitable for use in the learning process and can be applied to research schools.

Products that have been declared valid and practical are then applied to research schools. Data collection of the results of the practicality test of Website-assisted learning media in the research school was carried out by classroom teachers and students in grade IV of SDN 53 Payakumbuh. The filling out of the questionnaire will be held on July 28, 2025. And classroom teachers and students in grade IV of SDN 16 Payakumbuh fill out the questionnaire on July 30, 2025.

The filling out of the questionnaire in the teacher's response was based on the observation of the teacher while in class, observing the researcher conducting a test of the process on the students and also the question and answer that was carried out after the trial related to the learning media assisted by the website that the researcher developed and the teacher asked to be taught in how to use it. Based on the calculation of the teacher's practicality sheet, the results obtained for the practicality of this Website-assisted learning media in the first research school SDN 53 Payakumbuh are 84% with the very practical category and in the second research school, namely SDN 16 Payakumbuh, it is 94% with the very practical category.

The collection of data on the practical test of students was carried out by the researcher providing facilities and infrastructure in the form of laptops to each group and the researcher explained how to access the media that had been created. After that, the researcher continued by explaining and discussing with students with the Website-assisted learning media, after which students were given a questionnaire containing statements related to the Website-assisted learning media that had been implemented and used. A practicality questionnaire was filled out to see the response of students after using the Website-assisted learning media. Based on the calculation of the practicality sheet, the practicality score of students in grade IV of SDN 53 Payakumbuh received a score of 84.83% with the category of very practical. And the second research school, grade IV SDN 16 Payakumbuh with a result of 85.02% with a very practical category. And it can be said that it is suitable for use in the learning process.

The results of the trial of the effectiveness of Website-assisted learning media are seen from the learning outcomes of students. The learning outcomes obtained from the test school were in grade IV SDN 36 75.97% and in the first research school, namely in grade IV SDN 53 Payakumbuh the learning outcome was 80.23% and in the second research school, namely SDN 16 Payakumbuh, the learning outcome was 78.45%. Based on the description above, it can be concluded that the Website-assisted learning media developed by the researcher is effectively used in the learning process.

Evaluation

The evaluation stage is the final stage of research implementation. Evaluation was obtained based on the implementation stage, namely through the teacher's response questionnaire and the student response questionnaire given during the practicality test. Then measure the effectiveness of students' learning outcomes before and after using Website in learning through the results of pretest, pretest and N-Gain tests.

CONCLUSIONS

The study concluded that the development of website-assisted learning media for narrative text materials in Grade IV elementary schools was successfully carried out using the ADDIE model, consisting of analysis, design, development, implementation, and evaluation stages. The needs analysis revealed that teachers rarely used technology-based media, while students required interactive and engaging learning resources to improve motivation. The developed media achieved a high level of validity, with an average expert validation score of 90%, indicating that it was highly suitable for classroom use. Practicality testing also showed excellent results, with teacher and student responses ranging from 82.53% to 94%, demonstrating that the media was easy and effective to use during learning activities. The effectiveness test further confirmed that the media improved students' Indonesian language learning outcomes, with achievement rates of 75.97% in the pilot school, 80.23% in the first research school, and 78.45% in the second research school. Overall, the website-assisted learning media fulfilled the criteria of being valid, practical, and effective, making it an innovative and appropriate learning resource for supporting narrative text instruction under the Independent Curriculum.

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