

Development of Android-based Javanese language “Pawarta” learning media using Adobe Animate software

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Abstract: Javanese language learning aims to preserve regional languages and introduce local cultural values to the younger generation, especially in the midst of globalization that is shifting the use of Javanese. Understanding the material and motivation are challenges for students in learning Javanese. This is due to the lack of learning media. Therefore, this study discusses the development of Android-based learning media “Sinau Pawarta Basa Jawa” created using Adobe Animate software. This study aims to increase students’ interest in learning, improve understanding of Javanese language learning materials, and foster awareness of learning Javanese. The research method used is Research and Development with the ADDIE model. The results of the study showed that learning media was able to significantly increase students’ understanding and interest in learning Javanese. The use of this application makes the learning process more interactive and interesting, so that students are more enthusiastic in learning activities. In conclusion, this learning media is not only able to improve news writing skills, but also becomes an innovative solution in preserving Javanese among the younger generation through a technology-based interactive learning approach. Further research can also integrate application technology to increase student engagement in the era of Society 5.0.

Keywords: *Learning media, news, Android, ADDIE model*



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INTRODUCTION

Learning media has an important role in the educational process because it can increase students’ interest and understanding of the material presented. Learning media not only functions as a teaching aid, but also becomes an interactive medium that can attract attention and facilitate the delivery of information (Puspitasari & Rayungsari, 2024). In the digital era like today, technology-based media is increasingly being used to support the learning process, enabling more dynamic and interesting interactions (Dwitiyanti, Kumala, Widiyatun., 2020). In addition, technology-based learning media can also be adjusted to the various learning needs of students, creating a more effective and efficient learning atmosphere.

Previous research shows that good learning media must support and be consistent with pilot programs/provincial and regional curriculum results, meet quality standards in terms of facts and presentation, be appropriate to age (especially in terms of level of understanding), emotional development, ability level, learning style, social development of students, and encourage students’ interest in learning (Asrial et al., 2019; Ekasiswanto, 2024; Sukma et al., 2023). Learning Javanese has its own challenges, especially among the younger generation who are more familiar with Indonesian and foreign languages (Kartikasari &

Rahmawati, 2022). Javanese as a regional language that is rich in cultural and historical values is often marginalized in modern education (Astrada & Hapsari, 2022). Therefore, Javanese language learning needs to be supported by media that can attract interest and facilitate student understanding, especially in the aspect of writing news. Writing news in Javanese is not only about practicing language skills, but also building awareness of the importance of maintaining the sustainability of local languages and cultures.

Although Javanese has been taught since elementary school, in reality many students complain that Javanese is one of the subjects that is considered difficult to learn. It is not uncommon for Javanese language learning to be taught using Indonesian as the language of instruction. One of the factors that influences Javanese language learning is not easy for students to accept is the media used when implementing Javanese language learning. The lack of creative and innovative learning media is one of the factors that makes it difficult for students to grasp and accept the learning that has been delivered by the teacher (Yusnita, 2023). These issues are important responsibilities for personnel in the Department of Education and school boards/districts, administrators, teacher librarians, and teachers to provide and implement effective instructional programs, provide adequate learning resources, create supportive learning environments. These strategies should contain the values of linguistic diversity while emphasizing Javanese language proficiency, increasing the enjoyment of reading and enabling students to increase their motivation to learn (Muktadir et al., 2024).

The right solution that must be done by educators or teachers is to improve, expand, innovate, or upgrade the learning media used during the teaching and learning process. The media developed must of course be in accordance with the times and also the targets of students at each level. In addition, creating creative and innovative learning media will certainly get a new innovation that is felt by students, teachers, and even schools. So that later the learning media that is suitable for students can improve students' knowledge in learning Javanese and get maximum learning results. To overcome these challenges, the development of learning media by utilizing the Android platform in learning media has great potential in overcoming accessibility constraints and increasing user reach. Android, as an operating system that is widely used in various circles, allows the delivery of learning materials easily and efficiently through devices that students have every day, such as smartphones (Wahyuliana, 2022). This provides easy access for students to learn anywhere and anytime. In addition, Android-based learning applications allow the integration of interactive features that make the learning process more interesting and not monotonous.

Adobe Animate is animation software that can be used to create interactive and interesting Android-based learning media. With Adobe Animate, developers can create animations, simulations, and visual effects that support the delivery of material more dynamically (Saniriati et al., 2021). These

visual effects can include colorful images, videos, and other supporting animations. Colorful images can effectively motivate students, increasing their involvement in learning activities (Budiharto et al., 2019; Laeeque & Akmal, 2017; Oktarina et al., 2020; Prihatiniwati & Sukadari, 2022). Adobe Animate supports multiple platforms, including Android, so it can create learning applications that are easily accessible to students. This software allows the creation of feature-rich animations and can be integrated with interactive elements, making learning to write Javanese news more interesting and effective.

Existing regulations regarding the use of regional languages in the education curriculum often conflict with the reality on the ground, which shows low student interest in learning Javanese (Kartikasari & Rahmawati, 2022). Although the government has regulated the use of regional languages in several subjects, in reality students often focus more on Indonesian and foreign languages. This shows a gap between expectations and reality that requires innovative solutions. The use of technology-based learning media, such as Android applications, is expected to be a bridge between existing policies and reality in the field, so that Javanese is preserved among the younger generation (Primary, 2022).

This research is important to analyze the potential of Android-based learning media in improving the ability to write Javanese news. Given the decreasing interest of the younger generation in learning regional languages, this study aims to find new ways that can attract students' interest and motivation in learning Javanese. Furthermore, learning media using Android can be a linear process that directs the creation of active learning while the active role of the teacher shifts to being a facilitator (Bernard et al., 2019; Cahyadi, 2019; Prastowo, 2015). The use of android or electronic devices in learning is very blessed in helping students in the learning process. Where the world of education needs to take advantage of technological advances by presenting Android-based electronic learning media amidst the widespread use of gadgets in society (Suyoso & Nurohman, 2014), but there are still many practitioners in the world of education, especially teachers, who are not yet optimal.

Android-based electronic learning media can be interpreted as a form of presentation of independent learning materials that are systematically arranged into certain learning units, which are presented in electronic format, where each learning activity is connected with a link as navigation that makes students more interactive with the program, equipped with the presentation of video tutorials, animations and audio to enrich the learning experience and others (Najuah et al., 2021). Electronic learning media is a media development which is an adaptation of print media to digital or electronic media (Sugihartini et al., 2017; Cheva & Zainul, 2020; Molenda, 2003; Ricu Sidiq & Najuah, 2020).

This research has a novel value because it combines the concept of modern technology with regional language learning that has rarely received attention. Although there are many Android-based learning media, research that focuses on Javanese, especially in news writing, is still very limited. The novelty of this research lies in the innovative approach that integrates Javanese language learning with interactive features offered by Adobe Animate, creating media that is not only educational but also interesting for users.

Based on this introduction, the research problem was formulated: how to develop android-based learning media for Javanese journalists? It is hoped that this research can have a positive impact on Javanese language learning and encourage innovation in the development of technology-based learning media. This learning media can be an example for developing other regional language learning materials that are integrated with technology. Apart from that, it is also hoped that this research can increase awareness of the importance of preserving regional languages, especially among the younger generation, as well as contribute to the development of technological literacy in the field of education.

METHOD

The type of research used in this research is research and development (R&D) using the ADDIE design. R&D is a research method used to produce certain products and test the effectiveness of these products (Sugiyono, 2019). The product resulting from this research is the development of Android-based Javanese language learning media “Pawarta” using Adobe Animate software.

The Android-based Javanese language learning media “Pawarta” is created using Adobe Animate software, the learning media is entitled “Sinau Pawarta Basa Jawa” which aims to improve the learning outcomes of class VIII students of SMP Negeri 2 Temanggung. According to (Sugiyono, 2019), based on data collection techniques, can be categorized as follows: 1) Analysis of curriculum documents (Analysis of Learning Achievements and Learning Achievement Indicators), analysis of student and teacher textbooks, analysis of the availability of learning media used in SMP Negeri 2 Temanggung; 2) Interviews with teachers to analyze the needs and responses to learning media; 3) Questionnaires given for validation of learning media and responses to teachers and students; 4) Testing was carried out twice, namely the initial trial by the validator lecturer and subject teachers then the final trial by the user, in this case the students.

Data analysis used in this study includes qualitative descriptive analysis and descriptive statistical analysis. The following is Table 1 which details the aspects assessed, the instruments used, the data observed, and the respondents in the research on the development of the Javanese language “Pawarta” learning media.

Table 1. Assessed Aspects, Instruments, Observed Data, and Respondents

Rated aspect	Instrument	Observed Data	Respondents
Needs Analysis	Interview sheet	Need for learning media	Javanese language subject teacher for class VIII of State Middle School 2 Temanggung
Validation Results	Validation sheet	Validity of media and materials for the learning media "Sinau Pawarta Basa Jawa"	Subject matter expert lecturers and media expert lecturers
Response to the learning media "Learn Javanese Language News"	Questionnaire	User responses to the learning media "Sinau Pawarta Basa Jawa"	Javanese language subject teacher for class VIII of State Middle School 2 Temanggung
Learning media "Sinau Pawarta Basa Jawa"	Questionnaires and Item Tests (assessments)	The effectiveness of the learning media "Sinau Pawarta Basa Jawa"	Students of class VIII of State Middle School 2 Temanggung

RESULTS AND DISCUSSION

Results

The results of the study are in the form of a research and development process for the Android-based Javanese language "Pawarta" learning media using Adobe Animate software. The research and development process for this product was carried out through five stages based on the ADDIE model, namely: (1) Analysis, (2) Design, (3) Development, (4) Implementation, and (5) Evaluation. The following is an explanation of each stage of the research and development process.

Analysis

The analysis activities carried out include needs analysis, learning material analysis, and environmental analysis. The purpose of the needs analysis is to determine the identification of the media product to be created whether it is in accordance with the targets of the eighth grade students of junior high school at SMP Negeri 2 Temanggung. This analysis is carried out in two stages, including analysis of student needs and characteristics, as well as analysis of software and hardware.

Analysis of student needs and characteristics was conducted through observation, interviews, and literature review, it was found that students at SMP Negeri 2 Temanggung have a learning style that tends to require visualization. The teaching given by teachers is still conventional, dominated by lecture methods, and limited to the use of textbooks and learning media that are less varied and not in line with the latest technological

developments, especially in learning Javanese “pawarta”. Usually teachers create learning media using power point, teachers have never used Adobe Animate software to create learning media, teachers have also never used Android-based media in the teaching process. As a result, students feel less interested because the methods used are considered monotonous and less interactive. Therefore, an innovative learning strategy is needed that can provide a variety of learning media in line with technological developments, one of which is through the use of Adobe Animate in the development of Android-based learning media.

The selection of the Android platform is based on the results of observations that show that this operating system is more widely used and more economical. Android-based learning media is portable and can be accessed effectively and efficiently in various places and times, making it easier for students to learn flexibly. Meanwhile, for the analysis of software and hardware used in making learning media are Adobe animate 2020, Adobe Premier Pro for editing news in video form, Adobe Photoshop and Canva for editing and creating design animations. The hardware used in making learning media is a computer with Windows 11 Pro specifications, 440 GB hard disk, 16 GB RAM.

Learning material analysis aims to identify learning materials that are in accordance with the curriculum set by the school in line with student needs. The results are related to the Analysis of Learning Outcomes (ACP) in schools, which consist of Learning Outcomes and Indicators. Learning Outcomes: Students are able to write ideas, thoughts, views, directions or written messages about socio-culture for various purposes logically, critically, and creatively using Javanese according to the rules of polite language and grammar. Learning achievement indicators include 1) Students are able to analyze the elements of news texts; 2) Students are able to compile a news text framework. Students are able to develop a news text framework. Students are able to write news texts with 5W + 1H. Students are able to apply politeness in writing news texts.

Environmental analysis aims to identify the surrounding conditions that affect the learning process and determine the right strategy in teaching and learning activities. This analysis process is carried out through observation and interviews. The results of the analysis show that students are allowed to use smartphones as a learning aid, but with the provision that after the learning session is complete, the device must be returned to the subject teacher. In this study, smartphone use by students was allowed on a limited basis and supervised to support effective learning without disrupting discipline.

Design

At this design stage, the goal is to create guidelines in creating comprehensive learning media. In addition, in this stage there is a process of designing a number of instruments needed in media development. The design stages in this study include 1) determining and collecting learning materials, 2) creating flowcharts, 3) creating storyboards.

The learning materials that are prepared focus on news writing skills in Javanese (Pawarta). The sub-materials include basic news concepts, news characteristics, news structures or parts, important elements in news, news characteristics, news writing techniques, types of news, and examples of news in written and video form. Flowcharts are made to display the stages in the process of creating learning media. The purpose of this flowchart is to simplify, clarify, and summarize the steps systematically, so that it can simplify and expedite the media development process. Meanwhile, storyboards are made in the form of tables that display the design of the media products that are made. The purpose is for guidance when creating learning media so that it facilitates the process of creating learning media using Adobe Animate software.

Development

In this development process, the initial product design was improved and further detailed to suit the material and needs of the students, so that it becomes better and more detailed. This Android-based Javanese language “Pawarta” learning media was created using Adobe Animate, Adobe Premier Pro, Adobe Photoshop and Canva software. Adobe Animate is used to create learning media. Then Adobe Premier Pro is used to edit news in video form. While Adobe Photoshop and Canva are used to create animations needed in learning media. The following is a brief description of creating Android-based Javanese language “Pawarta” learning media.

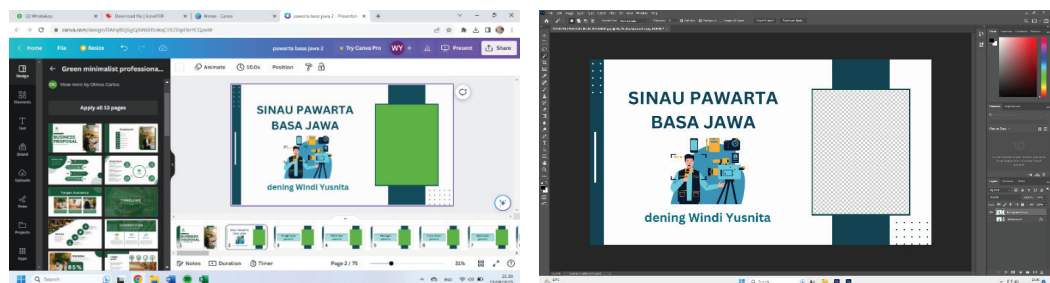


Figure 1. Adobe Photoshop and Canva are used to create animations needed in learning media

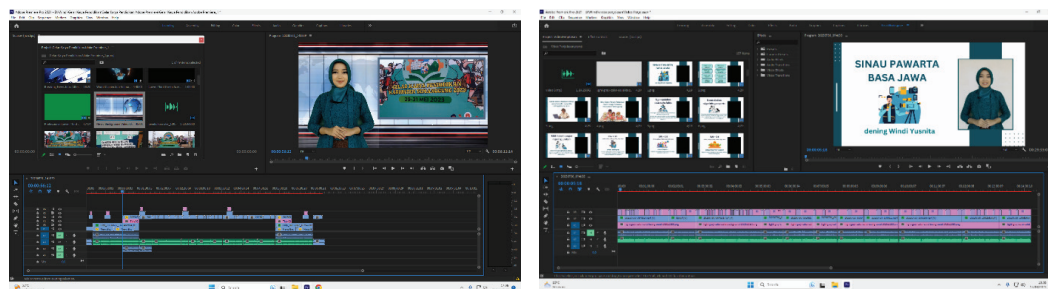


Figure 2. Adobe Premier Pro is used to edit news in video form

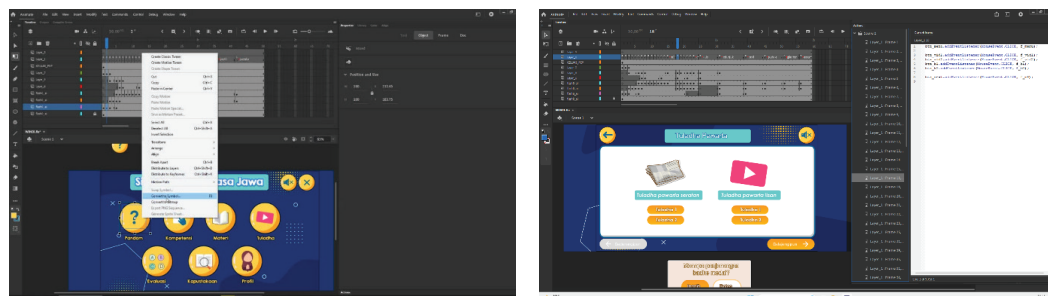


Figure 3. Adobe Animate is used in creating learning media

When the product is almost finished, it is necessary to validate it to the validator from the media and material experts. The product results that have been made are revised based on input and suggestions from experts. This stage involves validation by media experts and material experts. Product improvements can be determined based on the eligibility criteria obtained from the average score of the media and material expert responses. Furthermore, the average results are transformed according to the eligibility category table to determine the existence of the eligibility level of the learning media. If it has gone through the validation stage, has been repaired, and has been declared feasible. Then the next stage is testing and measuring the effectiveness of the learning media.

Implementation

Implementation is carried out through a trial of the learning media that has been developed. The trial or implementation stage of the “Sinau Pawarta Basa Jawa” learning media aims to see the extent to which the media is practical as a “pawarta” learning media for class VIII students of SMP Negeri 2 Temanggung. This trial involved 28 class VIII students as research respondents. After the trial, students were asked to fill out a questionnaire to measure their interest in the learning media. In this case, the student trial was carried out once with the implementation of pretests and posters to see the effectiveness and practicality of using the “Sinau Pawarta Basa Jawa” learning media as a learning media.

Evaluation

Evaluation is done to find out the need for revision. Evaluation is done at every stage that has been implemented. In this study, evaluation has been done at the analysis, design, development, and implementation stages. Every stage that is carried out must have an evaluation process that is carried out, because basically evaluation is done to find out the need for revision so that it can create learning media that is in accordance with needs.

Suitability of Android-based Javanese Language “Pawarta” Learning Media from Material Experts, Media Experts, and Javanese Language Subject Teachers

Product validation is carried out by two experts, namely a material expert and a media expert, in this case a lecturer who is the validator of the learning media. In addition, there is also an assessment from the Javanese language subject teacher with the aim of adjusting the learning media to the needs. Validation was carried out by material experts and media experts three times to produce valid learning media products. Several aspects of the indicators that were validated in terms of material were 1) the aspect of material relevance; 2) the aspect of organizing the material; 3) the aspect of evaluation or practice questions; 4) the aspect of language. The following are the results of the validation carried out by material experts.

In addition to validation by expert material validators and media experts. This learning media is also assessed by Javanese language subject teachers, with the aim of determining the feasibility of the quality of the media product in terms of appearance and suitability of learning materials. Several aspects of indicators assessed by Javanese language subject teachers are 1) material relevance aspect; 2) material organization aspect; 3) evaluation/practice question aspect; 4) language aspect; 5) pasinaon strategy effect aspect; 6) software engineering aspect; 7) visual appearance aspect. The results of the assessment carried out by Javanese language subject teachers on the learning media created are as follows.

Effectiveness of Android-based Learning Media “Sinaw Pawarta Basa Jawa” for Grade VIII Junior High School Students

Effectiveness is carried out at the implementation stage by conducting a field trial to assess the effectiveness of the learning media. The trial was conducted on 28 students of class VIII of SMP Negeri 2 Temanggung, with pretest and posttest analysis. The implementation of the effectiveness trial on the Javanese language “pawarta” learning media included several tests that began with Normality, after the data was normal, the Two Paired sample T-Test was then tested. In this case, it is explained in more detail as follows:

Normality Analysis Results

Tests of Normality						
	Kolmogorov-Smirnova			Shapiro Wilk		
	Statistics	df	Sig.	Statistics	df	Sig.
Pre Test	,132	28	,200*	,950	28	,204
Post Test	,160	28	,063	,944	28	,142

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

Based on the existing data, it can be seen that the significance value is 0.204, which is > 0.05 , so the distribution of the existing data is normally distributed. After the data is normal, the paired sample t-test is then carried out.

Paired Sample T-Test Analysis Results

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre Test	57.50	28	7,391	1,397
	Post Test	86.43	28	6,362	1,202

From the data, it is known that the average pre-test score of students is 57.50 while the post-test score is 86.43. With this, the pre-test score of 57.50 $<$ post-test 86.43, so it can be concluded that descriptively there is a difference in the average value of student learning outcomes before and after being given treatment.

Paired Samples Test									
Paired Differences									
		Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference					
Mean				Lower	Upper	t	df	Sig. (2-tailed)	
Pair 1	Pre Test - Post Test	-28,929	6,434	1,216	-31,424	-26,434	-23,790	27	,000

Based on the table that has been presented, a significance value analysis (2-tailed) can be carried out. This aims to draw conclusions about the research hypothesis on the influence of the learning media "Sinau Pawarta Basa Jawa" on the knowledge of the students' speech material. If the significance value (2-tailed) shows a figure of 0.05, then H_0 is rejected and H_a is accepted. This can be seen in the table that the significance value (2-tailed) shows a figure of 0.001 or < 0.005 , so H_a is accepted, which means that there

is an influence of the learning media “Sinau Pawarta Basa Jawa” on the knowledge of students.

Discussion

Development of Android-based Javanese Language “Pawarta” Learning Media using Adobe Animate Software

One of the competencies that teachers must have in carrying out their duties is the ability to develop learning media. The development of learning media is very important for teachers to make learning more effective and efficient and achieve the specified learning competencies. There are several criteria needed in making learning media. According to Arif and Napitupulu (1997), the criteria for learning media are as follows: 1) Learning media must be in accordance with learning objectives; 2) Learning media must be in accordance with learning objectives and must be in accordance with the needs of students; 3) Learning media must present factual information accurately; 4) Learning media must describe the background and atmosphere that are appropriate for students; and 5) Learning media must be easy and economical to use.

Learning media plays an important role in the teaching and learning process. To assist teaching and learning activities, teachers need learning media that can help teachers and students engage effectively in the learning process. Learning media contains content that is aligned with basic competencies, is described in detail, and demonstrates competencies comprehensively.

The learning materials to be developed need to be selected carefully in order to optimize their support in helping students achieve learning objectives, including in the selection of folklore as teaching materials. In this study, the process of creating learning media uses the ADDIE model. ADDIE is an acronym for Analyze, Design, Develop, Implement, and Evaluate. According to (Branch, 2009) The ADDIE development model is one of the more effective development models for producing a product, because the ADDIE development model has complex framework guidelines, so that it can develop educational products, namely instructional design in learning activities and systematically.

The first stage in creating learning media is analysis, which aims to understand the needs of students and the context of learning that will be implemented. Needs analysis includes identifying the target users of learning media, such as the level of understanding, interest, and basic skills of students in using technology (Astrada & Hapsari, 2022). In addition, learning material analysis is carried out by selecting relevant materials that can be delivered effectively through interactive media. Finally, environmental analysis is carried out to determine the devices and physical conditions of learning, including the availability of Android devices to be used and the readiness of school infrastructure to support this technology-based learning media.

After the analysis is complete, the design stage is the next step in creating effective learning media. At this stage, the learning materials that will be included in the media are arranged systematically according to the learning

objectives. To clarify the flow of material delivery, a flowchart is made that describes the sequence and interactions that will occur in the learning media. This flowchart functions as a guide so that the material is presented in a structured and logical manner (Putri et al., 2023). In addition, a storyboard is created to visualize the planned appearance and interaction, including the placement of visual elements, text, animations, and interactive components. With a clear storyboard, developers can ensure that the designed learning media is able to attract students' attention and convey educational messages effectively.

The development stage is a process in which the design that has been made at the design stage begins to be developed into real learning media. Product identification is carried out first to determine the format and features that will be in the learning media (Azzakki & Krisbiantoro, 2022). Then, the material that has been determined at the design stage is designed into content that can be applied in learning media, including the arrangement of text, images, animations, and audio elements. In addition, the material is arranged in such a way as to suit the students' abilities and is easy to understand, including in the context of simple language and visuals that support understanding of concepts.

In the development stage, not only learning materials are prepared, but also assessments or evaluations that will be given to students. This assessment is designed to measure students' understanding of the material presented. Questions are arranged according to varying levels of difficulty, with the aim of monitoring the development of students' understanding after using learning media. Answers to each question are also prepared, either in the form of multiple choice, short answers, or interactive questions that involve students in the process of answering directly on the media screen (Putri et al., 2023). The purpose of this assessment is to provide direct feedback to students, so they can know their learning outcomes in real-time.

After all the materials and assessments are designed, the production process begins with the creation of videos and animations using Adobe Animate. Adobe Animate is an animation software that allows developers to create interactive, dynamic, and visually appealing animations. Video production is done by integrating various elements such as text, images, and animations, to convey the material in an easy-to-understand way. Adobe Animate allows developers to add interactive elements, such as navigation buttons and visual responses when students click on certain parts of the media (Herman & Andika, 2022). This process requires attention to detail to ensure that each visual and interactive element functions well and aligns with the learning objectives.

After production is complete, the learning media that has been developed will go through a revision and validation stage. Revisions are made based on the results of formative evaluations at each previous stage, with the aim of improving parts that are still less effective. Validation is carried out by experts, including material experts and media experts, who provide input on the suitability of content, visual appeal, and effectiveness of learning media (Herman & Andika, 2022). This validation is important to ensure that the learning media

developed is in accordance with the expected educational standards and is able to provide maximum learning experience for students.

After the revision and validation process, the implementation stage is carried out by testing the learning media to students who are the target users. In this study, the trial was carried out on grade VIII students of SMP Negeri 2 Temanggung with a total of 28 participants. This implementation aims to directly observe how students interact with the developed learning media. Students are given the opportunity to study the material, work on practice questions, and interact with various features in the learning media. The results of this implementation stage provide an initial picture of the effectiveness of the media in improving students' understanding of the material presented.

The evaluation stage is the final process in the development of learning media, where the results of each previous stage are evaluated thoroughly. The evaluation carried out is formative, meaning it is carried out at every stage from analysis to implementation, with the aim of providing feedback that is used for continuous improvement (Rahayu & Yatri, 2021). Formative evaluation ensures that every part of the learning media is in accordance with the needs of students and learning objectives. Evaluation at the implementation stage also includes collecting data on student understanding before and after using the learning media. The results of this evaluation are the basis for improving the learning media in the future, so that it is truly in accordance with the expectations and needs in the education process.

Suitability of Android-based Javanese Language "Pawarta" Learning Media from Material Experts, Media Experts, and Javanese Language Subject Teachers

Validation was carried out by requesting an assessment from validators who are experts in their respective fields to assess the feasibility of the developed teaching materials. The aspects validated by the drafting team were the feasibility of the material and the feasibility of the media. Based on the results of the validation carried out three times, the developed teaching materials were categorized as very valid, in accordance with the statement of the Directorate of Education Development (2008) that the validation of learning media aims to obtain recognition or approval of the suitability of teaching materials to needs, so that they are worthy and appropriate for use in learning. Thus, the developed learning media can be used by students in learning Javanese, especially in the "pawarta" material.

Based on the validation table obtained, each aspect assessed, starting from the relevance of the material, organization of the material, evaluation of questions, language, to visual appearance shows that this media has succeeded in achieving a high average in the category of "valid" to "very valid." These results indicate that Android-based learning media is not only relevant, but also well organized so that students can follow the material easily and interestingly. These results are in line with research conducted by (Suhadah & Mufit, 2023), which shows that interactive learning applications tend to be more success-

ful in delivering complex material, especially in Javanese “pawarta” material which requires a special approach.

This supports the view of (Astrada & Hapsari, 2022) which states that Android-based applications that are designed interactively and self-paced can increase students’ independence and learning motivation, especially in learning that requires contextual interaction such as Javanese. In the context of this study, the visual display and interaction based on “touch” and “drag” in Adobe Animate are one of the factors that make this media easy to use and provide a fun learning experience.

In terms of organizing the material, this media is also considered very good in delivering the material completely and systematically. Good organization of the material provides students with a clear flow in following each learning session. Based on validation, indicators such as completeness of the material, actuality of the material, and understanding of the material show very satisfactory results. This is in line with the opinion (Ismail et al., 2023) that systematically organized materials in digital learning media have the potential to be more effective in building student understanding because they allow them to follow learning with a logical structure. In addition, in learning Javanese, structured materials greatly help students understand the language context better.

In addition to organization, the language aspect also received special attention in the validation of this media. The use of language that is adjusted to the level of student thinking is an important factor in making students feel comfortable and easy to understand the material. These results indicate that the language used in this learning media is appropriate and can be understood well by students. According to research (Talakua, 2023), learning media that uses language that is appropriate to the level of students’ thinking ability can increase student involvement in the learning process, especially in Javanese language learning which requires deep understanding. In Javanese language learning, the use of appropriate terms and language is very important to maintain language accuracy, which ultimately helps students better understand and appreciate their regional language.

From the visual appearance aspect, this Android-based learning media also received very good validation, especially in terms of the attractiveness of the design and the selection of appropriate colors and fonts. An attractive visual appearance plays an important role in maintaining students’ interest in learning during the use of the media. The selection of appropriate colors and design elements helps reduce boredom and gives a professional impression to the media. This supports the findings of research by (Wahyudi et al., 2022) which states that proper visualization in digital learning media has a direct impact on students’ learning motivation, especially on materials that are considered difficult or less interesting if delivered conventionally. This media successfully combines attractive design elements with easy navigation, making this learning media effective and memorable for students in the “pawarta” learning process.

Based on the description of the validation results, each aspect obtained an

average category of very valid. This shows that the content, language, and presentation of the learning media have been assessed as very good by the validators who are experts in their respective fields. The use of learning media also received positive responses from teachers, indicating that this method is effective in the learning process. Good learning media is learning media that contains content that is relevant to the daily lives of students. Thus, the learning media developed not only increases the effectiveness of learning but also encourages meaningful and relevant learning to improve skills.

Effectiveness of Android-based Learning Media “Sinaw Pawarta Basa Jawa” for Grade VIII Junior High School Students

The results of the effectiveness test of Android-based learning media showed a significant increase in post-test scores compared to pre-test. Most students showed an increase in understanding and learning ability of Javanese “news” after using Android-based learning media developed with Adobe Animate software. This increase indicates that an interactive approach supported by visualization and animation is able to help students understand the concept and techniques of writing news in Javanese more deeply. According to (Yoga et al., 2020), technology-based learning tends to be more effective in increasing student interest and understanding, especially in materials that require visualization. Interactive media in the Android platform allows students to learn independently at their own pace, so they can repeat the material until they really understand it.

In this study, it was found that the average pre-test score of students was 57.50 while the post-test score was 86.43. With this, the pre-test score of 57.50 < post-test 86.43, so it can be said that descriptively there is a difference in the average value of student learning outcomes before and after being given treatment. This gap shows an increase in understanding that occurs after the use of interactive and structured learning media. These results are in line with research (Asmarany et al., 2023) which states that application-based learning on platforms familiar to students, such as Android, can help reduce learning boredom and improve learning outcomes. With animation and interactivity, students can more easily grasp the concepts presented. This gap also shows the effectiveness of learning methods that combine technology with language learning methods.

Adobe Animate as a learning media development software provides various animation and visual features that support the learning process. The developed learning media allows students to not only read the theory of news writing but also see examples of news videos, providing practical simulations of how news structures and appropriate language are. Good visualization helps students connect abstract concepts with real examples, which are in accordance with research. (Asnan et al., 2022) which states that visual and interactive media can improve students’ absorption better than conventional media. In addition, through the interactivity provided by the Android application, students can

repeat the material independently until they really understand it, which makes the learning process more effective and memorable.

The use of technology-based media, especially those that support direct interaction, can be a bridge between everyday language and Javanese, which tends to be considered difficult. This is supported by (Anggraini & Mufti, 2022) which states that language learning can be more easily accepted by the younger generation if it is delivered through technology that is close to them, such as Android-based applications. Through the developed application, students can directly observe the structure of Javanese news writing as well as examples of appropriate language, which ultimately helps them in practicing writing correctly.

One aspect that supports the success of this learning media is the active involvement of students during the learning process. Through Android-based applications, students can interact directly with learning materials, complete practice questions, and receive direct feedback from the application. The results of this study are in line with research (Prakasiwi & Gusemanto, 2020) which states that active involvement of students in the learning process will increase material retention and deeper understanding of concepts. In learning to write Javanese news, students not only memorize the rules, but also learn to apply the rules through interactive exercises. This makes learning more meaningful and allows students to achieve better understanding.

Learning Javanese through technology-based media not only serves to improve writing skills, but also contributes to the preservation of regional languages. In globalization, regional languages are often less competitive than national languages and foreign languages. The results of this study indicate that technology-based learning media, especially interactive and interesting ones, can help maintain the existence of Javanese among the younger generation. As stated by (Baihaki et al., 2022) language preservation can be achieved if the language is taught through media that is relevant to the current generation. By providing applications that combine technology and local culture, Javanese language learning becomes more interesting and relevant, increasing students' awareness of the importance of preserving their cultural heritage.

CONCLUSION

This research and development resulted in a new product, namely the development of Android-based Javanese language "Pawarta" learning media developed using Adobe Animate software. Based on the results of the research and discussion of the development conducted by the researcher, several conclusions can be drawn as follows.

The effectiveness of learning media is carried out through a T-test. The results of the test obtained a normality significance value of 0.204, which is > 0.05 , so the distribution of the existing data is normally distributed. Meanwhile, the paired sample t-test test obtained an average pre-test of students of 57.50 while the post-test value obtained a value of 86.43. With this, the pre-test value

of 57.50 <post-test 86.43, it can be concluded that descriptively there is a difference in the average value of student learning outcomes before and after being given treatment. Meanwhile, the significance value (2-tailed) shows a figure of 0.05, so H_0 is rejected and H_a is accepted. This can be seen in the results that the significance value (2-tailed) shows a figure of 0.001 or <0.005, so H_a is accepted, which means that there is an influence of the learning media “Sinaw Pawarta Basa Jawa” on the knowledge of students.

The conclusion of this study shows that the use of Android-based learning media developed with Adobe Animate is effective in increasing students' interest and understanding of Javanese news writing skills. The trial results showed a significant increase in post-test scores compared to pre-tests, indicating that this technology-based approach is able to create an interactive and interesting learning environment for students. This media not only presents relevant and structured materials, but is also easily accessible and supports independent learning, which makes a positive contribution to preserving the Javanese language among the younger generation through an innovative technology-based learning approach.

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