INDONESIAN VALUES AND CHARACTER EDUCATION JOURNAL
Volume 6 Nomor 1 2023, pp 12-23
E-ISSN: 2615-6938; P-ISSN: 2615-4684
DOI: https://doi.org/10.23887/ivcej.v6i1.57720

Interactive Learning Media Based on Character Education in Indonesian Subjects for Grade 1 Elementary Schools

Erni Damayanti Br Samosir[1*], Anak Agung Gede Agung[2], I Kadek Suartama[3]

[1,2] Program Studi Teknologi Pendidikan, Universitas Pendidikan Ganesha, Singaraja, Indonesia
*Corresponding author: damayantierni22@gmail.com

Abstrak

Dampak dari perkembangan teknologi dan informasi tentu mendorong lembaga pendidikan untuk terus mengupayakan program yang sesuai dengan kemampuan peserta didik, kemajuan teknologi, lingkungan dan situasi, kondisi dan kebutuhan peserta didik. Dengan semakin pesatnya perkembangan teknologi informasi tentu mempunyai pengaruh besar terhadap perkembangan kepribadian peserta didik baik positif maupun negatif, untuk itu sangat penting untuk kembali menata pola pendidikan kepribadian guna mengimbangi dan membentengi faktor negatif secara baik sebagai akibat dari perkembangan tersebut. Penelitian ini bertujuan untuk mengembangkan produk media pembelajaran interaktif berbasis pendidikan karakter pada materi kalimat ajakan dan kalimat tanggapan pada mata pelajaran Bahasa Indonesia. Jenis penelitian ini adalah penelitian dan pengembangan desain model ADDIE yang terdiri dari lima tahap, yakni: Analyze, Design, Development, Implementation dan Evaluation. Subjek penelitian ini berjumlah 28 orang siswa kelas I SD. Metode dan instrumen pengumpulan data yang digunakan dalam penelitian ini yaitu kuisioner dan tes. Dari penelitian ini didapat hasil bahwa terdapat perbedaan yang signifikan hasil belajar Bahasa Indonesia antara sebelum dan sesudah menggunakan media pembelajaran interaktif berbasis pendidikan karakter pada mata pelajaran Bahasa Indonesia kelas I SD. Dari penelitian ini didapat kesimpulkan bahwa media pembelajaran interaktif berbasis pendidikan karakter terbukti efektif secara signifikan dapat meningkatkan hasil belajar Bahasa Indonesia.

Kata Kunci: *Bahasa Indonesia, Media pembelajaran interaktif, Pendidikan Karakter.*

Abstract

The impact of the development of technology and information certainly encourages educational institutions to continue to strive for programs that are by the abilities of students, technological advances, the environment and situations, conditions and needs of students. With the rapid development of information technology, it certainly has a major influence on the personality development of students, both positive and negative. For this reason, it is very important to re-arrange the pattern of personality education to balance and fortify the negative factors resulting from these developments. This study aims to develop interactive learning media products based on character education in the material of invitation sentences and response sentences in Indonesian subjects. This type of research is research and development of the ADDIE model design, which consists of five stages: Analyze, Design, Development, Implementation and Evaluation. The subjects of this study were 28 students of class I SD. Data collection methods and instruments used in this study were questionnaires and tests. This study found significant differences in Indonesian learning outcomes before and after using interactive learning media based on character education in Indonesian class I SD subjects. This study concluded that character education-based interactive learning media has proven effective in significantly increasing Indonesian learning outcomes.

Keywords: Indonesian language, interactive learning media, character education.

1. INTRODUCTION

Technological advances, which accompany efficiency and effectiveness through the growth of technology and information in various fields of life, including in the world of education, are an attempt to mediate between the present and the future. Technological developments are becoming very flexible. For example, cell phones/smartphones in the community make accessing the internet easy and quick to meet the need for information (Apriani et al., 2021; Sukmana et al., 2018). The impact of the development of technology and information certainly encourages educational institutions to continue to strive for programs that are by students' abilities, technological advances, the environment and situations, conditions and needs of students (Aysolmaz et al., 2021; Park, 2022). The internet

History:
Received : January 04, 2023
Revised : January 09, 2023
Accepted : April 02, 2023
Published : April 25, 2023

Publisher: Undiksha Press

is very helpful for learning, and finding learning topics becomes easier. The rapid development of information technology has made it possible for computers to display information and knowledge through multimedia programs (Suprianti et al., 2021; Yuniarni et al., 2020). The increasingly rapid development of information technology certainly has a major influence on the personality development of students, both positive and negative.

For this reason, it is very important to re-arrange the pattern of personality education to balance and fortify negative factors due to these developments properly (Widari et al., 2021; Yuniarni et al., 2020). The application of character education in learning is stated to form good morals and character in students (Annisa, 2020; Pertiwi, 2019; Yuniarni et al., 2019). Situations and conditions like this make educational institutions a place to develop character education directly for students. Educational institutions become a comfortable place for character education and build generations of character so that they will realize the life of a civilized society (Nugrahani, 2017; F. N. Putri, 2020). Character education aims to give birth to the nation's successors who have good morals and morals, to create a just, safe and prosperous national life (Ansori, 2021; D. P. Putri, 2018).

Based on interviews with first-grade teachers at SD Negeri 1 Banjar Bali on Monday, March 8 2021, at 11:00 WITA, information was obtained that in the teaching and learning process, several problems were encountered, such as a lack of supporting learning media, teachers were still lacking in utilizing learning media other than books lesson. Teachers still use conventional methods (lecture methods) in teaching and use books as learning resources and blackboards as learning media. During the online learning period, teachers use the WhatsApp application (WhatsApp Group Chat) to provide subject matter and sometimes provide interesting learning videos from YouTube. In online learning, language learning, especially Indonesian, is done through WhatsApp Group Chat. Within the group, the teacher informs the subject matter that will be learned from the textbooks provided by the school, and then the teacher gives assignments to students. These assignments will be collected on weekends. Information was also obtained from the interview that the application of character education through learning Indonesian still needed to be emphasized because learning was only limited to understanding the subject matter and doing assignments or homework the teacher gave. Based on interviews with the Head of SD Negeri 1 Banjar Bali, information was obtained that SD Negeri 1 Banjar Bali had supporting facilities such as LCDs, laptops and other supporting equipment. Some class teachers occasionally use these facilities for teaching and learning activities. If the problem is left unchecked, it will impact student learning outcomes.

One solution to overcome these problems is by using learning media. The use of media and technology to support learning activities has long been used (Arifin et al., 2021; Rahmi, 2019). Teachers or educators can use print media, models, graphics, multimedia, and even the internet or networks to gather information and facilitate student learning (Hsu et al., 2022; Krisna Bayu et al., 2021). Multimedia, in this case, can be interpreted as the ability of computer equipment to display information and knowledge through a combination of text, image, sound, video and animation elements (Budoya et al., 2019; Gunawan et al., 2016). Learning media can foster student creativity and increase student attention in the learning process. Students become more active during learning (Harsiwi et al., 2020; Hayati et al., 2020; Rejeki et al., 2020). Given the importance of learning media in education, the solution to the previously mentioned problems is to develop interactive learning media to improve student learning outcomes. Learning through interactive media can stimulate students' thoughts, attention and willingness. Therefore, the urgency of developing an interactive learning environment in learning Indonesian is very clear. Through this interactive media, it is hoped that students will be more interested in learning and can strengthen student character education. The character values emphasized in developing interactive learning media and

learning Indonesian are religion, responsibility, and caring for the environment. Previous findings suggest that interactive multimedia based on the i-spring presenter can improve the critical thinking skills of elementary school students (Muchtar et al., 2021). Computer-based interactive media is feasible and valid for fifth-grade elementary school thematic learning (Namiroh, 2019). Interactive learning multimedia using the CTL approach to thematic learning for fourth-grade students is appropriate to use (Geni et al., 2020). Interactive e-Module on thematic learning theme six sub-themes 2 My Great Dreams (Nopiani et al., 2021). Given the lack of technology as a learning resource in online learning, especially Indonesian language learning content, interactive multimedia development is being carried out in language learning content. This study aims to create interactive learning media based on character education in the material of invitation sentences and response sentences in Indonesian subjects. It is hoped that interactive multimedia will make it easier to provide variations in conveying material through innovative learning media relevant to student needs to motivate students to learn, think critically, and be creative.

2. METHODS

This type of research is research and development (Research and Development). Development research focuses on examining the field of design or design, both in the form of design models and teaching material designs to produce a product. The development model used in this study is the ADDIE model. The ADDIE model is a systematic learning design model (Tegeh et al., 2019). The ADDIE model consists of five learning design stages in general: analysis, design, development, implementation and evaluation (Setyosari, 2016). In the activities carried out in the analysis stage, environmental needs will be studied, so the products developed will be appropriate and meet the target needs. Activities carried out at this stage include observing learning conditions, teachers and students in the learning process. At the design stage, an interactive learning media framework is designed by making flowcharts and storyboards. At the development stage, the product design that has been conceptualized is then developed according to the results of the analysis and design to create an interactive learning media product. The development of interactive learning media products uses Articulate Storyline as the main software. The next stage is implementation. The interactive learning media that has been developed is then tested on students to see the effectiveness and practicality of interactive learning media. The last stage is evaluation. At this stage, the activities provide revisions or improvements to interactive learning media products (Wahyugi & Fatmariza, 2021).

The data collection method used in this research is the questionnaire/questionnaire method and the test method. The questionnaire method is a way of obtaining or collecting data by sending a list of questions which are then given to respondents or research subjects to be answered in writing (A. A. G. Agung, 2018). The test method is a test giving assignments in the form of questions to be answered or assignments to be done (A. A. G. Agung, 2018). The instrument used in this study was a questionnaire/questionnaire to collect review data from expert trials (subject matter experts, instructional design experts and learning media experts), individual trials, small group trials and field trials. Tests are used to collect data and determine the effectiveness of the pre-test and post-test. This study's validity test instrument grids are presented in Tables 1, 2, 3, 4, and 5.

Table 1. Instruments of Subject Material Experts

No	Criteria	Indicator	Total
1.	Teaching	a. Learning core competencies b. Learning core competency standards	5

No	Criteria	Indicator	Total
		c. Study plan d. Available materials e. Medium difficulty level	
2.	Grammatical Structure	a. Writing and spelling accuracy b. term accuracy c. Spelling accuracy d. Grammatical correctness	4
		Total Item	**9**

Table 2. Learning Design Expert Instruments

No	Criteria	Indicator	Total
1.	Theme truth	a. The suitability of the theme in the media b. Relation of learning topics with themes	2
2.	Presentation of material	a. The clarity of the syllabus description presented b. The way of presenting learning c. The diversity of the provision of learning materials	3
3.	Interactivity	a. Increase user interaction b. Increases learning motivation	2
4.	Question quality	a. Relevance of questions to the material b. Easy-to-understand questions c. Question difficulty level	3
		Total item	**10**

Table 3. Instruments of Learning Media Experts

No	Criteria	Indicator	Total
1.	Learning	a. Level to syllabus b. Perfect media usage guide c. feedback d. Media can foster the desire to learn	4
2.	Appearance	a. The visual media level b. Media animation level c. Image clarity level d. Visual media can provide motivation e. The accuracy of the placement of the title or headline f. The strength or durability of the media	6
3.	Programming	a. Media prototypes b. Interactive media visual consistency c. Media has the meaning of learning d. Media visual acuity e. Media evaluation	5
4.	Curriculum	a. Relevance of questions to the material	1
		Total Item	**16**

Tabel 4. Kisi-Kisi Instrumen Uji Coba Perorangan, Kelompok Kecil dan Lapangan

No	Criteria	Indicator	Total
1.	Learning Topics	a. The fluency in understanding the topic of learning b. Grammatical appropriateness c. The linkage of examples to the topic of learning d. Media motivational power to users e. Ease of use of media	5
2.	Animation	a. a. Animation clarity level b. b. Animation fun	4
3.	Visual	a. a. Visual attractiveness b. b. Visual clarity	
4.	audios	a. Audio clarity b. Exciting audio/back sound (background music)	2
5.	Media	a. Media display attractiveness b. Color variations in the medium c. Readability level of text/writing	3
6.	Evaluation	a. The suitability of the evaluation with the learning topic b. Level of understanding of the evaluation guide	2
7.	Accessibility	a. Ease of using media b. Clarity of media usage guidelines	2
	Total Item		**18**

Table 5. Test Items

Learning objectives	Material	Cognitive Level					Number of Questions
		C1	C2	C3	C4	C5	C6	
After following the learning process using interactive learning media 1. Students can demonstrate invitation sentences properly and correctly.	Invitation sentence	1, 4, 7, 8, 9, 13, 20, 29.	2, 6, 12, 14, 15, 16, 18, 19, 26, 27, 30.					19
2. Students can demonstrate response sentences properly and correctly.	Feedback sentences	23, 24, 28, 29.	3, 9, 11, 17, 21, 22, 25.					11

Three data analysis techniques were used in this development research: descriptive qualitative analysis, quantitative descriptive analysis, and inferential statistical analysis. The quantitative descriptive analysis technique systematically processes data in sentences or

words and categories of objects (objects, symptoms, certain variables), finally arriving at a general conclusion (G. A. Agung, 2017). The quantitative descriptive analysis technique systematically analyses data, in numbers or percentages, about an object studied to obtain general conclusions (G. A. Agung, 2017). Inferential statistical analysis technique, the field of statistics about how to conclude the population's state based on the data's results on the population's part called the sample (G. A. Agung, 2017). The data analysis technique used to determine the development process and product validity is by using a questionnaire or questionnaire given to experts (subject matter content, learning design and learning media) and tested on students (individual test, small group test and field test) resulting in score or value that can be converted. To determine the product's effectiveness, use tests given to students to determine the effectiveness of interactive learning media products based on character education with the help of pre-test and post-test.

3. RESULTS AND DISCUSSION

Results

The results of this development research will be discussed in three main parts: the process of developing interactive learning media and the validity and effectiveness of using interactive learning media. In this study, interactive learning media was developed using a systematic development model, the ADDIE development model. This model has five stages, the analysis stage, the design stage, the development stage, the implementation stage, and the development stage. last evaluation (evaluation)—is the process of developing interactive learning media. The analysis stage (analyze) includes an analysis of the need to produce interactive learning media that can meet the target needs. At this stage, the activities included interviews and observations. Interviews were conducted with the principal and one of the homeroom teachers of SD Negeri 1 Banjar Bali to find out the problems faced and provide solutions to these problems. Based on interview data, it was found that in the learning process, the teacher uses teacher-centred learning methods and the lack of use of learning media to make students less active and less motivated during learning. Based on the needs analysis results, a solution is provided with the help of interactive learning media, which can solve the problems found. Observation of the availability of facilities available in schools is also carried out to find out whether there are facilities that support renewal or renovation in a better direction. The design stage is the design of an interactive learning media framework, such as making a flowchart containing the flow of interactive learning media.

The flowchart is developed based on a navigation structure. A storyboard is a summary description containing the flow of material to be presented in interactive learning media. Preparation of validity instruments for preparation before the assessment is carried out at a later stage. In the development stage, the product design that has been conceptualized is then developed according to the analysis and design stages results to create a learning product that is by the goals to be achieved. The core activities in developing interactive learning media products are carried out with the help of the main Articulate Storyline software. After that, interactive learning media is uploaded to the website to be accessed flexibly. After the interactive learning media has been produced. The results of the validity of the experts are presented in the results of the review of the subject matter content experts, experts learning design and learning media experts are presented in Table 6.

Based on Table 6, the results of the validity of the experts obtained the result that the results of the review by the subject matter content expert obtained a score of 97.77% with a very good predicate, from learning design experts scored 94.00% with a very good predicate, and from learning media experts received a score of 94.00% with a very good predicate. The score of 91.25% predicate is very good. Based on the three expert review data results, an

average score of 94.34% was obtained with a very good predicate. After receiving a review from the experts, the interactive learning media was revised according to the suggestions and comments of the experts. In the implementation stage, after the interactive learning media has been revised according to the suggestions and comments of the experts, the interactive learning media is then implemented in learning activities at school. Interactive learning media products were tested on first-grade students at SD Negeri 1 Banjar Bali for the 2021/2022 academic year. Product trials were carried out in three stages: individual, small group and field. The results of the trial are presented in Table 7.

Table 6. Expert Validity Results

No	Subjects test the validity of interactive learning media	Result	Predicate
1.	Learning content expert test	97,77%	Very Good
2.	Learning design expert test	94,00%	Very Good
3.	Learning media expert test	91,25%	Very Good

Table 7. Results of Trials on Students

No	Subjects test the validity of interactive learning media	Result	Predicate
1.	Individual Trial	97,77%	Very Good
2.	Small Group Trial	96,93%	Very Good
3.	Field Trials	95,78%	Very Good

From the results of the trials conducted on first-grade students of SD Negeri 1 Banjar Bali, the results of individual trials obtained a score of 97.77% very good predicate, the results of small group trials obtained a score of 96.93% very good predicate and the results of field trials obtained score of 95.78% predicate very well. The three obtained an average of 96.82% very good predicate based on the test results. Furthermore, the interactive learning media was revised according to suggestions and comments from students. To determine the effectiveness of interactive learning media, the evaluation stage measures learning outcomes by administering pre-tests and post-tests to first-grade students at SD Negeri 1 Banjar Bali. The pre-test is given before students use interactive learning media, whereas the post-test is given after students use interactive learning media. The pre-test and post-test results given to students are presented in Table 8.

Table 8. Student Pre-Test and Post-Test Results

No	Effectiveness Test Subjects	Result	Predicate
1.	*Pre-test*	34,11	Less
2.	*Post-test*	84,64	Very Good

From the pre-test and post-test results conducted on first-grade students at SD Negeri 1 Banjar Bali, the pre-test results were obtained with a score of 34.11 with a poor predicate, and the post-test results with a score of 84.64 with a very good predicate. The acquisition of the pre-test and post-test indicates a difference, or there is a difference and an increase in student learning outcomes. This is evidenced by the results of the t-test, with the conditions for normality and homogeneity tests first. The normality test results obtained with the help of SPSS are presented in Table 9.

Table 9. Data Normality Test Results

No	Data	Kolmogorov-Smirnov	Shapiro-Wilk
1.	*Pre-test*	0,200	0,322
2.	*Post-test*	0,200	0,111

Based on the data obtained presented in Table 9. The data normality test results explained that the pre-test results in the Kolmogorov-Smirnov and Shapiro-Wilk columns with an acquisition score of 0.200 and 0.322, the acquisition of this score stated a significance result greater than 0.05 (significance level 5 %), so the data is declared normal. Post-test results in the Kolmogorov-Smirnov and Shapiro-Wilk columns with scores of 0.200 and 0.111, which means that the results of the significance in both columns are more than 0.05 (5% significance level) from both pre-test and post-test data can be taken the conclusion that the data is declared normal and can proceed to the homogeneity test stage. The results of the homogeneity test obtained from the pre-test and post-test data obtained a significant score the Base on Mean column 0.785, which means that the significance is more than 0.05 (5% significance level), so it can be concluded that the data is homogeneous. From the normality and homogeneity test results, a t-test can be carried out with the help of SPSS, which gets results in the significance column (2-tailed) of 0.000. These results indicate that the significance level is less than 0.05 (5% level of significance), so it can be concluded that H0 is rejected and H1 is accepted, which means that there is a significant difference in student learning outcomes before participating in learning using interactive learning media based on character education and after participating in learning by using interactive learning media based on character education.

Discussion

This development research produced interactive learning media products for first-grade students at SD Negeri 1 Banjar Bali. The development model used in this study is the ADDIE model. The selection of the ADDIE model is based on its systematic nature in designing and developing learning media (Abdurrahman et al., 2020; Tegeh, 2014). This development research produced interactive learning media products for first-grade students at SD Negeri 1 Banjar Bali. The development model used in this study is the ADDIE model. The selection of the ADDIE model is based on its systematic nature in designing and developing learning media (Firmansyah et al., 2020; Maison et al., 2021; Subandi et al., 2018). Using learning media in the learning process can attract students' attention because it can motivate them to learn. Lesson materials are more concise and clear in meaning so that students more easily understand the subject matter properly. The use of learning media can also clarify the delivery of messages because messages are not verbal (in the form of mere written or spoken words) (Rahmawati et al., 2021; Sari et al., 2021).

This study's interactive learning media products contain Indonesian language material and character values. These character values are: religious, responsible and caring for the environment. The link between Indonesian language learning and character education is that language learning can form and improve intellectual abilities, and emotional and social maturity, meaning that language learning can build students as a whole and with character (Ami, 2021; Herlina et al., 2019). Learning Indonesian can build good character and morals in students (Murniviyanti et al., 2020; D. P. Putri, 2020; Santika et al., 2021). Previous findings state that using interactive media to realize elementary school students' learning motivation is valid, practical and effective (Arwanda, 2020; Hakim et al., 2016; Wahyugi & Fatmariza., 2021). Interactive learning media, especially at the elementary school level, can make it easier for students to understand the subject matter (Wahyugi & Fatmariza., 2021; Widarti et al., 2020). The developed interactive media based on Macromedia Flash 8 is valid

and practical to use in my experience with second-grade elementary school students (Fartina et al., 2020; Marnita et al., 2017; Muhtarom, 2017). Interactive learning media can also provide differences in learning outcomes before and after using the media, so it can be stated that interactive learning media is valid, practical and effective to implement in third-grade elementary school learning (Maulidta et al., 2018). The review of previous research results stated that implementing or applying interactive learning media could affect student motivation and learning outcomes. There are many benefits of using interactive learning media in the teaching and learning process, including clarifying the presentation of messages so that they are not too verbal (in the form of mere written or spoken words), overcoming the limitations of space, time and sensory power, being able to overcome students' passivity. This research implies that this interactive learning media can motivate students to be actively involved in the learning process, improve student learning outcomes, and provide space for teachers to be creative in utilizing interactive media in the learning and teaching process.

4. CONCLUSION

Interactive learning media based on character education can improve student learning outcomes in Indonesian language learning, and interactive learning media is effectively applied to learning. Interactive learning media can be used in the teaching and learning process. It is recommended that teachers use interactive multimedia based on character education to assist students in learning to improve student learning outcomes in Indonesian.

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