

Development of Character-Based Picture Storybooks in Indonesia Subject to Improve the Literacy Skill of First-Grade Students of SDN Mangunharjo

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Abstract

The Minimum Competency Assessment (AKM) is focusing on measuring students' thinking and reasoning ability, one of which is reading literacy competence. The aims of this research are: 1) Developing character-based picture storybooks in Bahasa Indonesia subject in preparing for AKM; 2) Describing the characteristics of character-based picture storybooks media in preparing for AKM; 3) Examining the feasibility of character-based picture storybooks media in preparing for AKM; 4) Examining the effectiveness of character-based picture storybooks media of Bahasa Indonesia subject in improving elementary school 1st grade students' reading literacy. The type of this research is Research and Development (R&D) with ADDIE model modified by Branch as the development model. The sample of this research are elementary school 1st grade students, with 30 students as the experimental group and 28 students as the control group. The finding of this research shows that character-based picture storybooks are very feasible to be used with a percentage of 93.3% of media feasibility criteria and 85% of material and language feasibility criteria. Based on the results, t-test value is $0.006 < 0.05$ meaning that character-based picture storybooks are effective. The mean improvement using the n-gain test shows that the experimental group has the higher increase, obtaining an n-gain of 0.686 with medium category while the lower increase is found in control group with 0.449 in medium category. Thus, it can be concluded that character-based picture storybooks are effective to be used in Bahasa Indonesia subject to improve elementary school 1st grade students' reading literacy capability.

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INTRODUCTION

The elimination of National Exam (UN) as a learning evaluation tool in every National Standard level of education is one of the policies of Merdeka Belajar. Subsequently, the elimination brought National Assessment as a replacement. There are two aspects that are designed to be the standard in education, namely Minimum Competency Assessment (AKM) and Character Survey. The implementation of this policy will be started in 2021. AKM is one of the actions taken by the governments in a bid to improve Curriculum 2013 quality through the alteration of “Merdeka Belajar” Policy. AKM is carried out according to the instructions arranged based on its purpose. The purpose of the National Assessment is to change the educational evaluation paradigm in order to evaluate and map the education system in the forms of inputs, process, and results, in lieu of evaluating individual student achievement as it was previously done in the National Exam (Raini et al., 2022).

AKM was designed to map the schools and regions based on the minimum competency. It is focused on measuring students' thinking and reasoning ability in reading a text (literacy) or in facing a problems that required basis mathematical knowledge as well as its application (liyeracy-numeracy). One of the competences measured in AKM is character survey, concurrently it is used in order to determine the extent to which the implementation of the values of Pancasila is being done by the students. Furthermore, it is not merely about the cognitive understanding on how to implement the third principle of Pancasila, “The Unity of Indonesia” in the form of mutual assistance called “gotong royong”, but also the internalization of empirical values integrated in the learning process. The results of character survey can be utilized as a benchmark to provides some feedbacks to school in order to create a conducive learning environment in such a say that the students get a better understanding

and implementation of the principles of Pancasila through the learning process.

Character is a feature, traits or personal characteristics of a person originates from features acquired by the surroundings (Yunita et al., 2021). Associating learning indicators with the desired character is one of the methods in implementing the character education in the classroom. Classroom is the very place where the education process takes place. Teacher, students, student-student interactions occur in the learning process (Putranti et al., 2019). Arman (2016) stated that teacher hold a very essential role and functions in forming students character, mentality and morals. Reinforcement of class-based character education emphasize on the character values integration in every subjects.

An exceptional classroom management leads to learning quality improvement. According to Herliana (2020), teacher actuates the quality of education by carrying a role as a spearhead of education that determines the quality of a learning process in the classroom. Therefore, the need of qualified and adequate teacher is an absolute necessity to ensure the buildout, implementation, as well as the learning approaches or learning methods that support the formation of students character can be achieved (Aminah et al., 2022). In forming students' character through learning process, teacher ought to persistently instill character traits and habits according to the values of Pancasila and encompass religious values in the classroom (Ariningsih et al., 2020).

Moreover, the availability of engaging instructional media is one of the aspects that would yield profound effects on the classroom management's continuity during the learning process and the reaction to evaluations. A good instructional media will lead to a good classroom management during the learning process as well as the results of learning performance evaluation. The provision of relevant instructional media aligned with AKM policies can serve as a guiding principle in the learning process with the aim of ensuring

students' abilities to be in line with the competencies arranged in AKM.

The utilization of media as a learning resource is recognized as one of the factors that determine the success of a learning process. Learning media may motivate the students to actively engaged, both physically or psychologically, maximize the five senses in learning, and construct a meaningful learning process. One of the most effective and commonly used learning media is one with illusory and concrete objects. This is done to create an optimal learning process without reducing any essential components of education. Latip (2020) in his research showed that media with illusory pictures is an important aspect in assisting and stimulating both online or offline learning, especially young learners.

It is important to make sure that the choice of learning media is in accordance with the characteristics and learning objectives. In the theory of cognitive development stated by Piaget (Juwantara, 2019) children within 7-11 years are considered to be in a concrete operational stage. Hence, an engaging, efficient, and concrete learning media aligns with AKM and character survey is established. This matter is supported by educational experts in the definition of character survey purposes itself, which is complementing assessment is measuring affective domain. Character education is expected to be integrated into literacy and numeracy. As a matter of

course, this will always be associated with everyday life context. Thus, character strengthening cannot be solely conferred through cognitive domain alone, but also through the actualization and real world experiences in school, family, as well as community.

This signifies that preparing the students for AKM can be accomplished by developing a visual or picture-based textbooks that enhance students literacy based on AKM competency assessment. One of the characteristics of high-quality education is a literate community (Indriyani et al., 2019). Instilling literacy at such a young age should be carried out for it is a key foundation in accomplishing an intelligent and cultured nation (Lamada et al., 2019). In relation to this matter, in 2016 Indonesia was participating in Progress in International Reading Literacy Study (PIRLS) published by the National Center Education Statistics with a quite disappointing results, as Indonesia could only managed to get the 61th position out of 61 countries participated in PIRLS (Tahmidaten et al., 2020).

Fitri (2019) and Suparya (2022) argued that Indonesia is still facing similar problems which is the low level of literacy mastery, verified by the results of Trends in International Mathematics and Science Study (TIMSS) survey in 2015, published by the Association for Evaluation of Educational Achievement (IEA) in 2016. The results is shown in the figure below:

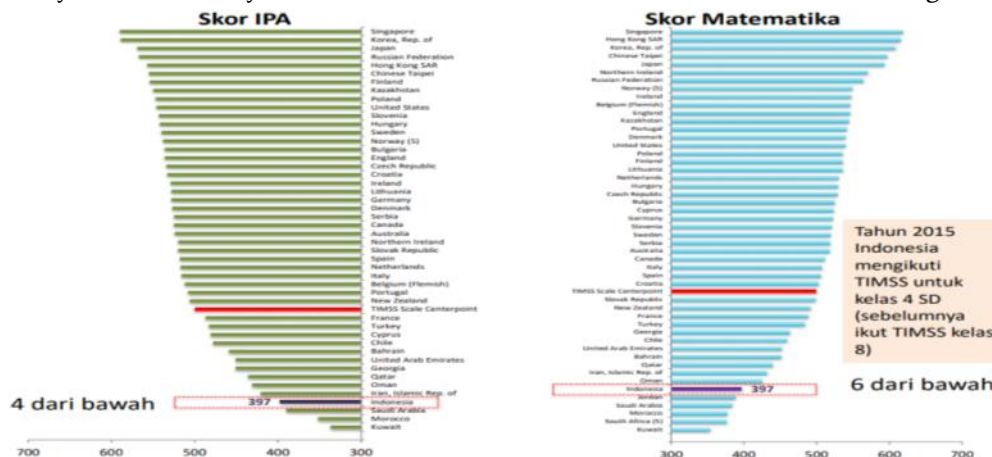


Figure 1. TIMSS 2015: Science and Mathematics of fourth grade students.

The results of TMSS study in 2015 a good achievement. Their Mathematical indicated Indonesian students is not yet showing Literacy was only ranked 44 out of 49 countries

with 397 points, below the international average score which is 500 points (Fitri et al., 2019). A similar results shown in the Science Literacy which only ranked 45 out of 48 countries with 397 points, again, below the international average score (Suparya et al., 2022).

Various issues have been found in the field, for example in SDN Mangunharjo Tugu in Semarang City, where the students is still having a low interest in reading despite the fact that they have a full access to the reading corners in each classroom as well as the school library with a wide range of books provided by the school, both fiction and non-fiction. Based on the results found during the interviews with the first grade homeroom teacher, reading activities are conducted 15 minutes prior to the learning activities. Majority of students is yet to find reading interesting, which leads to a lack of comprehension of the meaning within reading materials, shown by their tendency to only pay attention to the pictures in the book and not actually understanding the contents. One of the students said that during the literacy activities, they will only choose picture books or not even choosing one and went to the library merely to play with their friends, due to lack of surveillance.

The insufficient ability of students to comprehend the meaning of reading materials caused by the lack of innovation in the literacy activities. The storybooks provided in the library have not been effectively used to facilitate the learning process for they are not integrated with the materials and is not aligned with Merdeka Belajar Curriculum. This is further supported by the data which is available in the appendix. In addition to the aforementioned issues, SDN Mangunharjo shown character deviations characterized by the lack of mutual assistance among students and the differentiation of friendships solely based on their social status and religion.

Those issues are usually associated with unsuitable use of media in the learning process. The students did not find the media compelling enough, therefore the students need to be exposed with more suitable learning media so

that the preparation for AKM in early age will provide a nice result. Furthermore, it is necessary to provide a media that can stimulate the students to recall the story they have read. By doing so, students will have the ability that lets them re-write whatever they stored in their memory. There are so many instructional media that can be used to help the students in the learning process, one of which is picture book. In relation to this issue as well as preparing for AKM, it is essential to find a solution. The pursuit of solution is the driving force and the main reason behind this research. In order to enhance students' preparedness in facing AKM from an early age, it is necessary to bring a media to the table, in this case, character-based picture storybooks.

Researchers want to develop character-based picture storybooks to improve literacy levels, as thus far, the picture books in this field have not been integrated with Merdeka Belajar Curriculum and Character Education. The majority of picture books available in the market or school, based on the researchers' observation, are full of extensive texts and limited visual illustration that leads to a sense of monotony, so the students easily found them boring. Therefore, researchers are developing a picture book which contains lots of illustrations, colors, and only a minimum amount of text to enhance students' literacy. Another reason for developing character-based picture storybooks to improve literacy levels is based on previous studies that explored the same topic was using comics (Untari & Saputra, 2016), big book (Sulaiman, 2017), and flashcard (Nurfadilah, et al., 2022).

In light of the aforementioned concerns, this study aims to develop character-based picture storybooks with embedded character values actualization derived from Pancasila Student Profile, focusing on some characteristics namely faith, fear of God Almighty and noble character (religious), and mutual assistance.

In developing character-based picture storybooks, there will be some adjustment of character values with the materials and overall content of the book. The term "character" can be defined as traits, habits, moral values, or

personal characteristics of an individual that influence their attitudes, perspectives, and actions that ultimately become their habits in their lives (Yuliani et al., 2019). A comprehensive and character implementation supporting textbook is very essential in education system to assist the characteristics development and instilling process in students from an early age as they are representing future generations of Indonesia (Wuryani, 2018). The main purpose of developing character-based picture storybooks is to support the attainment of educational purposes in both cognitive and affective domains, as well as assisting the teachers in effectively implementing character values to the students.

In this study, the desired characteristic-based picture book will be printed in A5 size with CTS 150GSM cover. In line with Sianipar (2019), researchers conclude that it is more comfortable for the students to use a printed book as a media to support the learning process. Printed book holds a huge impact in improving students' learning achievements.

Previous studies that support this research is a study by Mila Aulani (2021) which demonstrated that advanced character-based picture storybooks as literacy supplementary are more engaging and suitable to be used. School Literacy Activities is an act of support to the government in building character among the students from an early age. One of the research that mentions the same topics conducted by Setiawan and Sudigdo (2019), which stated that by carrying out literacy activities in elementary school, it is expected that the students will be able to acquire new knowledge and understanding, let alone the four skills of language (reading, writing, listening, and speaking). Rokhim, et al., (2021) explained that by designing such learning that encompass 6 dimensions of Pancasila Student Profile, school should also be involved in implementing those values by holding student activities such as dhuha prayer, dhuhur prayer in jama'ah (congregation) as the implementation of the first dimension, faith, and exposing them with HOTS type of questions in order to imboost their

critical thinking skills. Character education should be addressed to the students as early as possible, thus the future generations will encompass good manners and ethics for a better future of Indonesia.

By developing character-based picture storybooks, it is expected that the students will get a better understanding of every materials especially in Bahasa Indonesia subject, improving their learning achievements, and boost their motivation through an engaging learning media, so it will improve their literacy skills as well. The aims of this research are: 1) Developing character-based picture storybooks in Bahasa Indonesia subject in preparing for AKM; 2) Describing the characteristics of character-based picture storybooks media in preparing for AKM; 3) To examine the feasibility of character-based picture storybooks media in preparing for AKM; 4) To examine the effectiveness of character-based picture storybooks media of Bahasa Indonesia subject in improving elementary school 1st grade students' reading literacy. The significance of this study can be differentiated into theoretical and practical implications. Theoretically, this study provides references and resources for Bahasa Indonesia language learning by using character-based picture storybooks as a media in improving students' literacy in elementary school level. Practically, the picture book media implemented by the researchers will become one of the solutions for the teacher in conducting teaching and learning activities so the students will have an optimal and high level of literacy skills. The results of this research can be utilized as a reference material for other researchers in future studies on relevant topics.

METHOD

The type of this research is Research and Development (R&D) with ADDIE model modified by Branch as the development model. The research and development (R&D) will adopt a quasi-experimental trial design. The quasi-experimental trial design used was Nonequivalent Control Group Design, in this

design the experimental group and control group were not randomly selected. This research were done by giving the experimental group some actions then using the control group as a comparison (Asrianto et al., 2022).

The research procedure of this study adheres to the sequential steps of the development model proposed by Branch (Asmayanti et al., 2020) which consists of five steps, namely analysis, design, development, implementation, and evaluation. The steps in developing media are (1) preparing story content material; (2) preparing editing software; (3) making media prototypes; (4) developing and editing media designs using editing software; (5) entering material/content and other completeness in accordance with the Merdeka Curriculum (6) compiling media in order and systematically. There are two data sources in this research, which are primary and secondary data. Primary data is the data that is obtained or collected by the researcher directly. The data were obtained from several parties where the research took place; SDN Mangunharjo Academic Year of 2022/2023 which consist of first grade students, homeroom teacher of the first grade, learning environment, and school facilities and infrastructure as the experimental group; SDN Mangkang Kulon 03 Academic Year of 2022/2023 as the control and media expert validator as well as material expert validator. Secondary data refers to the data that is obtained or collected by the researcher from existing sources. Secondary data of a research could be obtained from many sources, for example international journal articles, national journal articles, books, and reports.

The subjects of the small-scale research of this study consists of 6 students that is selected using purposive sampling from the third grade students of SDN Mangunharjo Tugu Semarang City. On the other hand, the subjects of large-scale experiment of this study are 30 students from the first grade of SDN Mangunharjo as the experimental group and 28 students from the first grade of SDN Mangkang Kulon 03 as the control gorup. Meanwhile, the instrument

testing was carried out at SDN Mangkang Kulon 02 involving a total of 25 students.

The type of the questions that will be used are objective test with multiple choices and short answers to measure students' literacy competence, in total of 10 questions. The test instruments which goes through item analysis stages such as validity and reliability testing, will be used during the pretest and posttest. The formulation of the test items is based on AKM format in complex multiple-choice, matching, and short answer.

Non-participant and structured observations were conducted to identify the existing problems during pre-research. Structured interviews following interview guide to the teacher were carried out in this research to obtain in-depth information regarding the learning process. The obtained data include a list of names, number of students, and the result of the learning process in the form of grades.

This research was using validated questionnaire, teacher questionnaire response and student questionnaire response. All of the questionnaire was using close ended question for which the researchers already provide answers for the respondents to choose. The Respondents of this needs analysis questionnaire are the teacher and first grade students of SDN Mangunharjo Tugu Semarang City. Validation sheet will be filled out by material and linguist expert validators as well as media expert validator. Meanwhile, teacher and student response questionnaire will be filled out by the teacher and first grade students of SDN Mangunharjo Tugu Semarang City.

Feasibility Test and Data Validity Test

Feasibility test of character-based picture storybooks were conducted by expert validators based on feasibility questionnaires.

The research instrument should be qualified, therefore instrument testing should be conducted as a way to develop the research instruments. Instrument testing was carried out outside the classroom which hold a role as the research object. The purpose of this testing is to measure and holds a good tool before using it.

The trial questions were accustomed to AKM with multiple-choice, short answer, and matching which later being analyzed separately and focusing on its validity and reliability. The findings of the trial analysis showed that all 10 examined questions were deemed feasible and suitable for utilization in the reading literacy pretest and posttest.

Data Analysis Technique

Initial Data Analysis

Normality test performed in this stage to discover whether or not the data collected have normal distribution. In this research, to test the normality of the data was carried out with the Kolmogorov Smirnov Test using SPSS version 25. If the significance value of the two tests in the Kolmogorov Smirnov column > 0.05 , then the data have normal distribution. Homogeneity test performed to discover that the compared groups are homogeneous. In this research, SPSS Statistics 23 with One-Way ANOVA will be applied in order to analyze the constant variation of the data. The Homogeneity test was performed using Kolmogorov-Smirnov with the aid of SPSS 25. If sig. Levene statistic > 0.05 , it can be concluded that the data is homogeneous and exhibits the same variation of values.

Final Data Analysis

In this stage of analysis, two-tailed test (independent sample t-test) was performed using SPSS 25. If $t\text{-value} < 0.05$, H_a is accepted, meanwhile if $t\text{-value} > 0.05$, H_o is accepted. H_a showed that the experimental group that was using character-based picture storybooks as a learning media is more effective in improving students' literacy skill than control group which only use conventional-based media and H_o is less effective in improving students' literacy skills or there is no difference in experimental group and control group. Meanwhile, N-Gain test was used to examine the difference in the average score improvement of the cognitive learning results on reading literacy competence based on the pretest and posttest score of experimental group. Pretest and Posttest assessment was calculated using gain index analysis. N-Gain is a normalization gain which

obtained from comparing pretest and posttest score difference with Ideal Maximum Score (SMI).

RESULTS AND DISCUSSION

The design of the character-based picture storybooks development is explored through interviews with the teacher, observation, and documentation at SDN Mangunharjo. The interview was conducted with the 1st-grade teacher and the focus of the question is directed towards the learning process in the classroom, the media being used by the teacher, and students' most favorite media. Observation and documentation were obtained in the classroom during the learning process.

The layout of character-based picture storybooks developed by the researchers was considered as printed media with the output of A5 printed book. The character-based picture storybooks was printed using digital printing machine with ivory (art cartoon) 190gr and CTS (art paper) 150gr paper. According to the teacher, there is currently no media that prepares AKM at an early age, especially one that focuses on the literacy and numeracy, as well as one that can enhance students characteristics especially Pancasila Student Profile heeded on the religious and mutual assistance. In line with that, the researchers developed picture book adjusted to the flow of learning objectives, scopes of learning, and designed material for first grade students of elementary school based on Merdeka Curriculum by adding the implementation of religious and mutual assistance domains, this book is equipped with illustrations, appealing color composition and evaluation questions. Loarid (2015) stated that printed media are preferred over digital media (e-book) because of the reading experience that allows the readers to physically touch or turn the pages to the previous or last pages of the book stimulates the brain to easily comprehend and memorize the contents for a long period of time.

The product design of this character-based printed book is oriented to Faroh (2018), that children's book are usually full of illustration

and colorful. The cover of this book was designed with illustrations to attract readers. The main pages of this book are also packed of illustrations in between the text, beneath the text, or the or beside the page. The output of this product is a real media composed by the researchers. As for the content of this character-based picture storybooks has been prepared by the researchers. The researchers have already prepared learning materials, illustrations, stories, desired characteristic values, practices with student worksheets, and evaluations questions. The steps implemented in developing this media are: (1) preparing the materials in the form of stories written in Microsoft Word 2016 and supporting materials including logo and illustrations that will be added to the learning media; (2) installing CorelDRAW X7 and Adobe Photoshop CC 2017 software application; (3) designing media prototype to ease the process of learning media arrangement; (4) developing and editing the display of this character-based picture storybooks using CorelDRAW X7 and Adobe Photoshop CC 2017; (5) inserting another elements into the product design namely learning materials, illustrations, stories, desired characteristic values, practices with student worksheets, and evaluations questions. The researchers organized them in a systematic order based on the prototype design of the product that was designed earlier.

The organization of character-based picture storybooks instructional media pays attention to the characteristic aspects in order to establish an effective and efficient implementation. The characteristics and updates of character-based picture storybooks on “Expressing Gratitude, Apologies, Requests, Giving Compliments, Invitations in Polite Written Language” material of Bahasa Indonesia subject for the first grade of elementary school encompass various aspects, including: (1) material/content; (2) design; (3) exercises and (4) evaluation questions.

The first aspect which is material/content in the learning media for the first grade of elementary school is already adopting Merdeka

Curriculum. Learning media development of the character-based picture storybooks particularly on “Expressing Gratitude, Apologies, Requests, Giving Compliments, Invitations in Polite Written Language” material of Bahasa Indonesia subject with Merdeka Belajar Curriculum and is prepared to face the AKM. The material/content of this picture book is presented in illustrations and stories. The illustrations will be customized based on the narration text related to four magical words, such as apologizing, thanking, praising, and asking for help politely.

The content of this picture book is not merely illustrations and narration text related to the subject material, but also character-based, meaning that this book is embedded with character implementation. The reference characters in this book are Pancasila Student Profile focusing on some characteristics namely faith, fear of God Almighty and noble character (religious), and mutual assistance. Consequently, this character-based picture storybooks contains two competencies measured by AKM which are literacy and numeracy in preparing the first grade students of elementary school in facing AKM from an early age.

This matter is supported by the study conducted by Widodo (2020) which elaborated that linking learning materials to the surroundings would produce a more meaningful learning process. Meaningful learning process will lead the students to comprehend learning materials of 4 magic words and praisings more easily.

The second aspect is the design of the character-based picture storybooks media. The design of this character-based picture storybooks on “Expressing Gratitude, Apologies, Requests, Giving Compliments, Invitations in Polite Written Language” material of Bahasa Indonesia subject for the first grade of elementary school in Merdeka Curriculum is using A5-sized colorful papers which are appealing for kids. This character-based picture storybooks media will be printed according to the number of the students that will become research participants, in a glossy CTS 150gsm

ivory paper for the cover page and CTS 12gsm ivory for the main pages, written in Berlin San FB and NeSkid font, and also hardcover glossylamination as the finishing for the cover book. This is in accordance with a research conducted by Rahmatih et al. (2020) which stated that a learning process should fit the characteristic of elementary school students who are on concrete operational stage (7-11 years old) by providing learning material linked to

their surroundings to get them understand the material more easily.

This character-based picture storybooks uses engaging illustration to attract students' interest as well as cartoons and vectors to provide relevant examples aligned with the presented material/content. Those illustrations are systematically combined with stories. Figure 2 shows the cover design of character-based picture storybooks.

Figure 2. Cover Layout Design of Character-based picture storybooks



Figure 3. Layout Of the Character-Based Picture Storybooks Material

The third aspect is exercises. The exercises of this character-based picture storybooks on “Expressing Gratitude, Apologies, Requests, Giving Compliments, Invitations in Polite Written Language” material of Bahasa Indonesia subject for the first grade of elementary school in Merdeka Curriculum have been adjusted to AKM questions format. The questions in this book consists of multiple choices, complex multiple-choices, and short answers. Moreover, this book provides examples on how to answer the question as well as the key answers, so the students will be able to learn on how to answer the questions correctly, thereby preparing them to face similar type of AKM questions in the actual exam.

The fourth characteristic aspect in developing learning media is evaluation questions. Evaluation questions of this

character-based picture storybooks on “Expressing Gratitude, Apologies, Requests, Giving Compliments, Invitations in Polite Written Language” material of Bahasa Indonesia subject for the first grade of elementary school in Merdeka Curriculum have also been adjusted to AKM questions format. Exposing students with AKM format type of questions from an early age will allow them to familiarize themselves with the same format type of questions in aid of facing AKM in the future especially in literacy and numeracy competence. Evaluation questions will consist of multiple choices, complex multiple-choices, matching, The answer key of the questions will be printed separately. Figure 4 shows the evaluation questions of this Character-based picture storybooks.

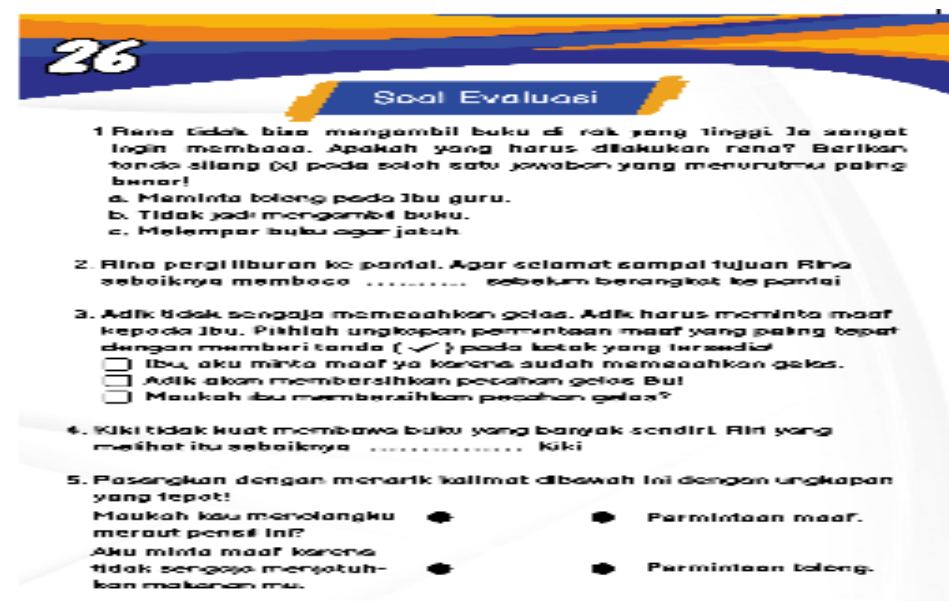






Figure 4. Reading Literacy Evaluation Questions on Picture Storybooks that Have been Adjusted to the types Of AKM Questions



The design of character-based picture storybooks was repaired to improve the quality of the feasibility of character-based picture storybooks based on suggestions for improvement from media and material expert

validator. There are several inputs and suggestions given by the experts including ineffective writing, illustration images are adjusted again with the narrative text, then the addition of a table of contents and bibliography,

and improvements to the evaluation questions. The input and suggestions given by the experts were then improved by the researchers. The following is a Table 1 of suggestions and revisions for character-based picture storybooks media before and after revision.

Table 1. Revision of Character-Based Picture Storybook Media Before and After Revision

No	Suggestion	Before revision	After revision
1.	Improvements to the cover title which should be enlarged again without quotation marks.		
2.	Added table of contents	Not available	
3.	Addition of bibliography	Not available	

<p>4. Simplification of words to be effective</p>		
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The character-based picture storybooks media was revised according to expert validation suggestion. After being revised and validated, it is then applied to the usage test. This is in line with the research carried out by Agustin (2020) which stated that contextual-based picture book enhanced learning outcomes which can be seen from the increase of posttest point with a 9.34 points differences with the pretest points. Therefore, contextual-based Social Sciences picture book for Elementary School proved to be effective to be used in the learning process.

Based on the assessment component validation scored by media expert validator as well as material and linguist expert validator, it can be concluded that character-based picture storybooks is highly deemed suitable for use.

Media expert assessed that the components are “very feasible” with a total score of 56 and a percentage of 93.37%. Material and linguist expert asserted that the content feasibility is considered as “very feasible” with a score of 51 and a percentage of 85%. Following the validation assessment by media, language as well as material experts, character-based picture storybooks has now classified as “very feasible” for use as a learning media of Bahasa Indonesia for first grade students of elementary school on “Expressing Gratitude, Apologies, Requests, Giving Compliments, Invitations in Polite Written Language”. Below is the diagram displaying the overall data results of validation of the character-based picture storybooks which will be presented in Figure 5.

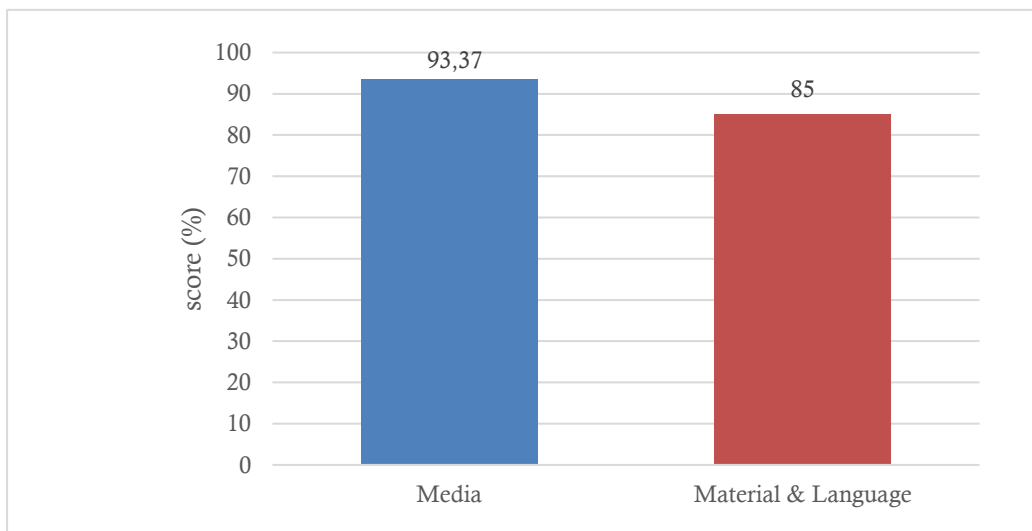


Figure 5. Diagram of Media, Material and Linguist Experts Validation Results

Validation results showed that the developed teaching materials have engaging visual-layout and are easy to control by the students sufficiently, that leads to the students' literacy skills improvement.

Effectiveness trials of the character-based picture storybooks was carried out during the large-scale experiment which is included as the implementation phase. On the other hand, analyzing effectiveness trial results in a large-scale experiment included in the evaluation phase based on ADDIE development model. Effectiveness trials are obtained from the students' cognitive learning results that encompass reading literacy competencies.

Cognitive learning results obtained from both pretest and posttest on reading literacy.

The study commences by administering a pretest to the students in both experimental and control group in order to perceive their cognitive skills before receiving any treatments. Next, treatment was given to the experimental group which is the first grade students of SDN Mangunharjo Semarang City in the form of character-based picture storybooks media, meanwhile the first grade students of SDN Mangkang Kulon 03 Semarang City as the control group were given conventional media. Posttest results were collected after two sessions of treatments. Cognitive learning pretest and posttest in reading literacy presented in Table 2.

Table 2. Cognitive Learning Pretest and Posttest in Reading Literacy

Treatment	Mean	Highest Score	Lowest Score	Number of Students Passed	Passing Grade (%)
Experimental Group Pretest	37.33	70	10	2	6.67%
Control Group Pretest	40.36	70	10	2	6.67%
Experimental Group Posttest	80	100	50	25	83.33%
Control Group Posttest	67.86	100	40	18	60%

Based on Table 2, students' cognitive learning results of the first grade of SDN Mangunharjo as the experimental group and SDN Mangkang Kulon as the control group during the pretest and posttest in reading literacy and numeracy, the average score of the experimental group are 37.33 with 6.67% rate of learning mastery of 2 students, meanwhile the control group achieved 40.36 average score with 6.67% learning mastery rate of 2 students. The average score of the Reading Literacy Posttest of the experimental group are 80 with 83.33% learning mastery rate of 25 students, whereas the average score Reading Literacy Posttest achieved by the control group are 67.86 or 60% rate of learning mastery of 18 students. This observation highlights the differences in students' cognitive learning of Bahasa Indonesia

for first grade students of elementary school to improve their reading literacy skill between the experimental group which utilized character-based picture storybooks media and the control group which rely solely on conventional media.

Subsequently, the collected pretest and posttest data will be subjected to a normality test as a prerequisite for conducting independent t-test and calculating N-gain score using SPSS 25 for windows with Kolmogorov-Smirnov test. In this part of the test, normality test is a tool in determining whether the pretest and posttest data of the experimental group and control group are having normal distribution. Interpreting the results by examining the value, if sig. >0.05, it can be concluded that the data follow a normal distribution, if sig. <0.05, the data is not following normal distribution.

	Kolmogorov-Smirnova		
	Statistic	df	Sig.
Experimental Pretest	.151	30	.080
Control Pretest	.133	28	.200

Based on Table 3 result of Normality Test using Kolmogorov-Smirnov test with the aid of SPSS 25 it can be seen that the calculation of the normality test for the pretest data on cognitive learning results in reading literacy competence of the experimental group and control group using Kolmogorov-Smirnov test with the aid of SPSS 25 yielded sig. $0.080 > 0.05$ for the experimental group pretest data and sig. $0.200 > 0.05$ for the control group pretest data. Both significance values are greater than 0.05

which means that both of the data are following normal distribution, so the following calculation will be using parametric statistics.

After receiving treatments, experimental group and control group will undergo posttest session to comprehend the final data of the cognitive learning results on reading literacy competence in both of the group. The following Table 4 is the result of the normality test for the posttest data possessed by experimental group and control group.

Test of Homogeneity of Variances				
	Levene Statistic	df1	df2	Sig.
Reading Literacy Pretest	1.769	1	56	.189

Table 3. Reading Literacy Posttest Normality Test Results

Based on Table 3, experimental posttest data is showing significance value of 0.176 greater than 0.05 ($0.176 > 0.05$) meaning that the data have a normal distribution. The results of the control group posttest normality test is showing significance value 0.200 greater than 0.05 ($0.200 > 0.05$) which means that this data is also following normal distributions. Both of the data presented in the table, both of the data are following normal distribution, hence the following calculation will be using parametric statistics. Thereby, both of the pretest and posttest data in reading literacy competence can be proceed to Homogeneity Test.

Homogeneity test for the pretest and posttest data on cognitive learning results in reading literacy competence having the aim to discover whether the experimental group and control group are having one single categorical

variable. If both of the group are possessing the same variable, both of the data are homogeneous and eligible to proceed to independent t-test and N-gain. Homogeneity test carried out after the pretest and posttest data on cognitive learning results in reading literacy competence are proven to follow normal distribution. Homogeneity test for the pretest and posttest data was conducted using One-Way ANOVA test in SPSS Statistics 25. To determine the data varians in homogeneity test can be proceed by examining the value, if sig.levene statistics > 0.05 then the data considered as homogeneous, if sig.levene statistics < 0.05 then the data is not homogeneous. The following Table 5 below is the result of homogeneity test for pretest data of the experimental and control group.

Based on Table 5, the calculation of the homogeneity test for the pretest data on cognitive learning results in reading literacy competence of the experimental group and control group using One-Way ANOVA test with the aid of SPSS 25 obtained significance value of the homogeneity test on the pretest data of experimental and control group sig.levene statistics $0.189 > 0.05$. Hence it can be concluded that the cognitive learning results data on reading literacy competence pretest for the

experimental and control group are homogeneous, indicating that the data exhibits the same variation of values.

After receiving treatments, experimental and control group will be administered a posttest questions comprehend the final data of the cognitive learning results on reading literacy competence in both of the group. The following Table 6 is the result of the homogeneity test for the posttest data possessed by experimental group and control group.

Table 6: Homogeneity Test Results of Reading Literacy Posttest

Test of Homogeneity of Variances				
	Levene Statistic	df1	df2	Sig.
Reading Literacy Posttest	.038	1	56	.845

According to the Table 6, the calculation of the homogeneity test for the posttest data on cognitive learning results of the experimental group and control group using One-Way ANOVA test with the aid of SPSS 25 obtained significance value of sig.levene statistics $0.845 > 0.05$. It can be drawn that the cognitive learning results data on reading literacy competence posttest for the experimental and control group are homogeneous, indicating that the data exhibits the same variation of values. It can be concluded that the pretest and posttest data of reading literacy competence are homogeneous and can be continued to the Independent T-Test and N-gain test.

cognitive learning results data on reading literacy competence, the next step is to perform Hypothesis Test. The hypothesis test used in this study is the independent t-test, which aims to determine which one out of the two learning media, character-based picture storybooks group as a treatment for the experimental group; conventional media given to the control group, proven to be more effective in improving students literacy. The Independent T-test was analyzed using SPSS Statistics 25, the interpretation of the independent t-test was based on the significance value (2-tailed). If the p-value (2-tailed) > 0.05 , then the null hypothesis (H_0) is accepted, while if the p-value (-tailed) < 0.05 then H_0 is rejected and H_a is accepted. Below is the t-test as shown in Table 6.

After conducting normality and homogeneity test of the pretest and posttest of

Table 6. Independent Samples Test on Cognitive Learning Result in Reading Literacy

F	Sig	t	df	Sig. (2-tailed)
.038	.845	2.836	56	.006

The calculation of the independent t-test with the aid of SPSS Statistics 25 in the table above describes that Sig. (2-tailed) $0.006 < 0.05$ H_0 is rejected and H_a is accepted. Thus, the differences between the mean of the posttest on cognitive learning results on reading literacy competence after receiving treatment prove that

the use of character-based picture storybooks as a media is more effective in improving students' reading literacy more than conventional-media-based learning. In conclusion, character-based picture storybooks can enhance students' reading literacy referring to the improvement of cognitive learning results on reading literacy

competence after receiving treatment which is character-based picture storybooks.

N-Gain test was conducted to discover the differences of the cognitive learning results on reading literacy competence, before and after the treatment. N-gain testing can be determined by

observing the difference between pretest and posttest average score. The overall data of the pretest and posttest average score difference of the experimental and control group cognitive learning results presented on Table 8 below.

Table 8. N-Gain Testing on Cognitive Results of Reading Literacy

Group	Mean score	pretest	Mean posttest score	N-gain	N-gain criteria
Experiment	37.33	80		0.686	Medium
Control	40.35	67.85		0.449	Medium

The results of the N-gain test calculation in Table 8 show that the experimental group has an average increase in n-gain value of 0.686 included in the medium category. Meanwhile, the control group had an mean increase in n-gain score of 0.449 included in the medium category. In light of these findings, Experimental group possess higher N-Gain score than control group. The results showed that there is a difference in the average score improvement of the cognitive learning results on reading literacy competence based on the pretest and posttest score of experimental group students that received a treatment, where the experimental group achieved higher N-Gain score than the control group with only conventional-based media. In general, it can be interpreted that character-based picture storybooks is effective in improving first grade students' literacy skills.

CONCLUSION

Character-based picture storybooks media was developed based on ADDIE development model. According to Media Expert, the average score of the layout component is 93.37%, while the average score of the component feasibility given by Material and Linguist Expert is 85%, hence it can be inferred that character-based picture storybooks media is eligible and approved to be tested in this research. The results of the independent t-test obtained a sig. (2-tailed) score of 0.006 < 0.05 and the results of the N-gain test of cognitive learning outcomes of reading literacy competence in the experimental

group obtained a score of 0.686 in the "medium" category higher than the control group which obtained a score of 0.449 in the "medium" category. In conclusion, character-based picture storybooks can improve the literacy skills of the first grade students of elementary school.

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REFERENCES

- Agustin, A. S. (2020). Pengembangan Bahan Ajar IPS Kontekstual Tema Wirausaha di Kelas 6 Sekolah Dasar. *Jurnal Penelitian dan Pendidikan IPS*, 14(1):44–54. <https://doi.org/10.21067/jppi.v14i1.4746>
- Aminah, A., Hairida, H., & Hartoyo, A. (2022). Penguatan Pendidikan Karakter Peserta Didik melalui Pendekatan Pembelajaran Kontekstual di Sekolah Dasar. *Jurnal Basicedu*, 6(5), 8349-8358.
- Ariningsih, I., & Amalia, R. (2020). Membangun Karakter Siswa Melalui Pembelajaran Matematika Yang Berintegrasi Keislaman. *Journal on Teacher Education*, 1(2), 1-8.

- Arman, A. (2016). Upaya peningkatan kompetensi guru dalam menyusun rencana pelaksanaan pembelajaran melalui supervisi akademik Kepala Sekolah di SMAN 1 Lembah Melintang Kabupaten Pasaman Barat. *Jurnal Manajemen Pendidikan*, 1(1), 55-61.
- Asmayanti, A., Cahyani, I., & Idris, N. S. (2020). Model addie untuk pengembangan bahan ajar menulis teks eksplanasi berbasis pengalaman. *Seminar Internasional Riksa Bahasa, XIV* (1), 259-267. <http://proceedings.upi.edu/index.php/riksabahasa/article/view/1355>
- Asrianto, L. O., Hasiu, T. S., Aisyah, M., & Rosdiati, R. (2022). Pengaruh Intervensi Promosi Kesehatan terhadap Pengetahuan, Sikap dan Praktek Perilaku Hidup Bersih dan Sehat pada Siswa di SD Negeri 1 Lawele Kecamatan Lasalimu Kabupaten Buton. *JURNAL ILMIAH OBSGIN: Jurnal Ilmiah Ilmu Kebidanan & Kandungan*, 14(4), 243-254.
- Aulani, M., Hamdi, Z., & Hadi, Y. A. (2021). Pengembangan Cerita Bergambar Berbasis Nilai Karakter Sebagai Penunjang Literasi. *JIPD (Jurnal Inovasi Pendidikan Dasar)*, 5(1), 20-24.
- Faroh, N. N. (2018). Pengembangan Buku Cerita Bergambar Berbasis Montase dalam Pembelajaran IPS Kelas V. *Joyful Learning Journal*, 7(4), 34-42.
- Fitri, H. W. A., & Duryati, D. (2019). Hubungan Gaya Pengasuhan Autoritatif Dengan Number Sense Pada Siswa Sd. *Jurnal Riset Psikologi*, 2019(4), 1-11.
- Fitria, Nila, Amelia, Zahrina, & Nurfadilah, Nurfadilah (2022). Pengaruh Flashcard Path To Literacy terhadap Kemampuan Literasi Baca Tulis. *Jurnal obsesi: jurnal pendidikan anak usia dini*, 6(5), 4039-4048.
- Herliana, S., & Anugraheni, I. (2020). Pengembangan Media Pembelajaran Kereta Membaca Berbasis Kontekstual Learning Siswa Sekolah Dasar. *Jurnal Basicedu*, 4(2), 314-326.
- Ika, M. M., & Putranti, Y. D. (2019). Penerapan Program Penguatan Pendidikan Karakter Berbasis Kelas Di Sekolah Dasar Se-Kecamatan Sleman Kabupaten Sleman. *Elementary Journal: Jurnal Pendidikan Guru Sekolah Dasar*, 2(1), 42-52.
- Indriyani, V., Zaim, M., Atmazaki, A., & Ramadhan, S. (2019). Literasi baca tulis dan inovasi kurikulum bahasa. *KEMBARA: Jurnal Keilmuan Bahasa, Sastra, Dan Pengajarannya*, 5(1), 108-118.
- Juwantara, R. A. (2019). Analisis teori perkembangan kognitif piaget pada tahap anak usia operasional konkret 7-12 tahun dalam pembelajaran Matematika. *Jurnal Ilmiah Pendidikan Guru Madrasah Ibtidaiyah*, 9(1), 27-34.
- Kisno, K., & Sianipar, O. 2019. Perbandingan Efektivitas Buku Digital Versus Buku Cetakan dalam Meningkatkan Performa Belajar Mahasiswa. *Jesya (Jurnal Ekonomi dan Ekonomi Syariah)*. 2(1), 229-233.
- Latip, A. (2020). Peran literasi teknologi informasi dan komunikasi pada pembelajaran jarak jauh di masa pandemi Covid-19. *EduTeach: Jurnal Edukasi dan Teknologi Pembelajaran*, 1(2), 108-116.
- Lamada, M., Rahman, E.S. & Herawati. Analisis Kemampuan Literasi Siswa SMK Negeri Di Kota Makassar. *Jurnal Media Komunikasi Pendidikan Teknologi dan Kejuruan*. 6(1), 1-5.
- Loarid, J., Waluyanto, H. D., & Zacky, A. (2015). Perancangan Buku Cergam Interaktif Untuk Menumbuhkan Sikap Berpikir Kritis Anak Melalui Kebiasaan Membaca. *Jurnal DKV Adiwarna* 1(6): 12-24.
- Marfuah, I., & Subanti, S. (2019). Proses Berpikir Kritis Peserta Didik Dalam Dua Variabel Ditinjau Dari Gaya Belajar Kelas IX B Smp Negeri 2 Surakarta. *Jurnal Elektronik Pembelajaran Matematika* 4(7), 622–632.
- Maulani, N., & Subali, B. (2019). Analisis Kemampuan Rekonstruksi Problem Solving Siswa Melalui Asesmen Higher Order Thinking (HOT) Siswa SMA.

- UPEJ Unnes Physics Education Journal*, 8(3), 319–332.
- Novika Auliyana, S., Akbar, S., & Yuniastuti. (2019). Penerapan Pembelajaran Tematik Terpadu di Sekolah Dasar. *Jurnal Pendidikan: Teori, Penelitian, Dan Pengembangan*, 3(12), 1572–1582. <https://doi.org/10.17977/jptpp.v3i12.11796>.
- Rahmatih, A. N., Maulyda, M. A., & Syazali, M. (2020). Refleksi Nilai Kearifan Lokal (Local Wisdom) Dalam Pembelajaran Sains Sekolah Dasar: Literature Review. *Jurnal Pijar Mipa*, 15(2):151–156. <https://doi.org/10.29303/jpm.v15i2.1663>.
- Rokhim, D. A., Rahayu, B. N., Alfiah, L. N., Peni, R., Wahyudi, B., Wahyudi, A. & Widarti, H. R. (2021). Analisis Kesiapan Peserta Didik Dan Guru Pada Asesmen Nasional (Asesmen Kompetensi Minimum, Survey Karakter, Dan Survey Lingkungan Belajar. *JAMP: Jurnal Administrasi Dan Manajemen Pendidikan*, 4(1), 61-71.
- Setiawan, A. A., & Sudigdo, A. (2019). Penguatan Literasi Siswa Sekolah Dasar Melalui Kunjungan Perpustakaan. *Prosiding Seminar Nasional PGSD UST*, (1)1, 24-30. <https://jurnal.ustjogja.ac.id/index.php/sn-pgsd/article/view/4703>
- Sulaiman, U. (2017). Pengaruh Penggunaan Media Big Book Dalam Pembelajaran Terhadap Keterampilan Literasi Siswa Kelas Awal Madrasah Ibtidaiyah Negeri Banta-Bantaeng Makassar. *Al-Kalam*, 9(2). 193-204.
- Suparya, I. K., Suastra, I. W., & Arnyana, I. B. P. (2022). Rendahnya Literasi Sains: Faktor Penyebab Dan Alternatif Solusinya. *Jurnal Ilmiah Pendidikan Citra Bakti*, 9(1), 153-166.
- Untari, M. F. A., & Saputra, A. A. (2016). Keefektifan media komik terhadap kemampuan membaca pemahaman pada siswa Kelas IV SD. *Mimbar Sekolah Dasar*, 3(1), 29-39.
- Widodo, A. (2020). Nilai Budaya Ritual Perang Topat Sebagai Sumber Pembelajaran IPS Berbasis Kearifan Lokal di Sekolah Dasar. *Gulawentah: Jurnal Studi Sosial*, 5(1):1-16. <https://doi.org/10.25273/gulawentah.v5i1.6359>
- Wuryani, M. T., Roemintoyo & Yamtinah, S. (2018). Developing Thematic Textbooks based on Character Education at Elementary School. *Ilkogretim Online*, 17(1), 268-276.
- Yuliani, W & Supriyanto. (2019). Strategi Pembinaan Karakter Cinta Lingkungan Di Tk Alam Al Ghifari Blitar. *Inspirasi Manajemen Pendidikan*, 7(1), 1-10.
- Yunita, Y., & Mujib, A. (2021). Pendidikan karakter dalam perspektif islam. *TAUJIH: Jurnal Pendidikan Islam*, 3(1), 78-90.