Gradation of Javanese reading teaching materials for lower elementary grades

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Abstract

Gradation of teaching materials will show the material leveling according to the developmental stages and student needs. This study aims to develop the gradation of Javanese reading for the lower elementary grades. This development research (R&D) used the ADDIE (Analysis, Design, Development, Implementation, and Evaluation). The research samples were teachers and students in grades 1 to 3 in 14 randomly selected schools. The data collection methods used document analysis, interviews, and tests. The study result was in the form of a product of Javanese reading teaching material. Using the t-test, the field trial results revealed a significant difference between grades using gradation books and non-gradation books, grade 1 had significance value of 0.017, grade 2 had 0.000, and grade 3 had 0.000. Suggestion for further research is the development of gradations of Javanese reading teaching materials for upper elementary grades.

Keywords: Gradation, javanese language, lower grades, elementary school, ADDIE model;

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1. Introduction

Reading is a crucial activity in learning because students will easily access knowledge if they already have reading skills. If students' reading skills are lacking, they are likely to experience difficulties or even failure in learning (Somadayo et al., 2013). Likewise, in developing Javanese language skills, reading Javanese is essential to be taught to students, especially at the elementary school level, especially in the Central Java area, which makes Javanese a subject and a language used to communicate in everyday life.

At the elementary school level, reading learning is divided into two: grades 1 to 3 included beginning reading, while grades 4 to 6 are included in advanced reading (Wardiyati, 2019). At the beginning, it is done by voicing the reading aloud and fluently because it is more emphasized in introducing consonants, vowels, and diphthongs. Related to that, the initial learning stage is the beginning reading, which focuses on introducing signs or symbols associated with the letters so that it becomes the foundation for students to proceed to the initial reading stage (Purnamasari, P. & Soendari, 2018).

Seeing the importance of beginning reading, in the lower grades of Javanese language subjects, students must be complete in reading Javanese because if they are not complete, it will affect learning in the next class. It can happen because the door to mastering other skills and knowledge is the ability to read the beginning of the Javanese language. Hence, teachers need to provide interesting and suitable learning according to students' needs. According to Cloonan and Fingeret (2020), "appropriate learning materials can improve educational outcomes." However, students' ability to understand the material develops gradually. Therefore, it is vital to provide the right material according to the needs and development of the child.

Here, selecting or ordering materials in language teaching should be based on the needs of students, background knowledge, and the objectives of a particular academic program. To advance teaching towards success, educators also need to be very careful in the process of selecting material and doing gradation. The same thing was also expressed (Baker, 2011) about aspects that need to be considered in analyzing the accuracy of a teaching material to be used, including selection, gradation, presentation, and repetition.

Gradation is the arrangement of the sequence of language learning content adjusted to students' ability at a certain level so that it is presented systematically (Amalia, 2017). Meanwhile, Richard and Schmidt, (2002) stated that the gradation of learning content is the arrangement of language learning content or the contents of language textbooks so that they are presented efficiently. All materials that have gone through the selection stage may not be taught to students simultaneously. It is because teaching materials must prioritize something easier before moving on to more difficult material. Given the Javanese language reading materials to examine for their difficulties, appropriate material gradation is needed so that it is easier for students to understand learning to read Javanese.

Materials arranged sequentially, tiered, and sustainable will make learning easier for students. Here, continuous learning is crucial so that learning is more directed and in accordance with the age development of students (Simatupang et al., 2020).

The gradation of material is important to consider in learning because of the limited learning time that must accommodate the achievement of learning objectives (Stern, 1983). Particularly, language teaching materials are complex and broad, so the material level must be selected and sorted, choosing what materials are important to be taught and must be mastered by students (Coleman & Pimentel,

2012). Teaching materials must also be arranged in accordance with learning objectives, learner needs, and learning principles (Nation & Macalister, 2010).

On the other hand, each level of education has different characteristics and learning needs. Language teaching material for the elementary school level is certainly different from senior high school level. Therefore, the development of teaching materials needs to pay attention to the selection, gradation, and sequencing of materials (Kumaravadivelu, 2006).

However, the problem found in Indonesia is that the qualifications for mastery of the material are now unstructured since the curriculum pays attention to the essence of sustainable learning. It can be said that the burden of subject matter in Indonesia is currently getting heavier, especially for elementary, junior high, and senior high school students, since the given material jumps up and down, not sequentially (Situmorang, 2016). Based on the study results (Anwas, 2020), information was also obtained that the circulating textbooks for lower elementary grades always assumed that all students were fluent in reading, so the textbooks did not help learn basic literacy. In fact, reading ability is acquired gradually, so the teaching materials provided should also be arranged in stages (Armbruster et al., 2001). Therefore, preparing the gradation of teaching materials is an important thing to do (Anwas, 2020) so that the teaching materials provided can be right on target. This study aims to develop the gradation of Javanese reading for the lower elementary grades and to describe the reading material leveling from grade 1 to 3.

2. Method and Materials

2.1. Research Model

This research belonged to the research and development (R&D) with the ADDIE model consisting of the analysis, design, development, implementation, and evaluation stages (Almelhi, 2021; Alnajdi, 2018; Branch, 2009). Research and development is a research method that is intentionally and systematically used to find, improve, develop, produce, and test products, models, or strategies that are superior, new, effective, productive, an meaningful (Feri & Zulherman, 2021). At the analysis stage, empirical studies, theoretical studies, document analysis, and needs analysis were carried out. At the design and development stage, the design and development of the gradation of teaching materials for reading the Javanese language was performed for the lower elementary grades. At the implementation stage, the product was tested using a t-test. Finally, at the evaluation stage, the test results were assessed.

2.2. Participants

The subjects of this study were teachers and students in elementary schools in the ex-Surakarta Residency area. In each 7 regency, two schools (public and private) were selected, so that there were 14 schools. In this study, the population was all teachers and students in grades 1, 2, and 3 in the ex-Surakarta Residency area, while the research samples were teachers and students in grades 1 to 3 in 14 randomly selected schools (one public school and one private school per one regency) in the ex-Surakarta Residency area.

2.3. Data Collection Tools

In the analysis stage, a needs analysis was carried out by using document analysis, interviews, and tests (Salimi et al., 2021). The results of the needs analysis are in the form of gradation products which are then further developed into teaching materials for reading Javanese to the lower elementary grades. The result product was then tested using the posttest-only control design experimental method.

2.4 Data Collection Process

The effectiveness was known by comparing the post-test scores of the control and the experimental groups. The experiment was carried out at the MI N 3 Sukoharjo, which has parallel classes, so it is expected that students' input is in the same condition. Respectively, there were 64 students in grade 1, 52 students in grade 2, and 46 students in grade 3. At this trial/implementation stage, observations and interviews towards teachers and students were also conducted to obtain more comprehensive information regarding material gradation products and teaching materials for reading Javanese in learning. All observation sheet items were analyzed by using a four-point Likert scale score with the following criteria: strongly disagree, disagree, agree, an strongly agree (Höhne et al., 2021). The questionnaire method is used with data collection technique carried out by giving several questions or written statements to respondents to be answered (Feri & Zulherman, 2021).

2.5 Data Analysis

The independent variable (X) in this study was the new teaching materials arranged according to the gradation of the teaching materials, while the dependent variable (Y) was the Javanese reading skills of students in grades 1 up to 3 of elementary schools. The experimental form using a post-test-only control design (Sugiyono, 2016) is described below.

$$
\begin{array}{ccc}
R & X & O1 \\
R & & O2
\end{array}
$$

Description:

R   : The control group and the experimental group were each selected randomly.

X   : Treatment

O1 : The condition of the experimental class after being given treatment

O2 : The condition of the control class after being taught using the same material as before.

The effect of the presence or absence of treatment is seen by comparing O1 and O2. The effect of treatment was then analyzed using a t-test. If there is a significant difference between the experimental and the control groups, the given treatment has a significant effect/effectiveness.

This study employed an expert judgment validation technique. The teaching materials were validated by linguist lecturers to examine written grammar and Javanese language material experts regarding the suitability and sequence of taking Javanese reading materials, especially for lower classes. These two experts were given instruments to be able to assess the feasibility of teaching materials made and developed by the research team. Validation techniques were used to validate the research instruments and the result product. Meanwhile, the data analysis technique utilized qualitative and quantitative descriptions. Explanatory items from qualitative data are comments, suggestions, or criticisms from validators. While the explanatory points of quantitative data are numbers obtained from filling out the product development validation instrument sheet with a Likert

scale (1-4). The quantitative item analysis technique used is the average calculation technique.

3. Results

In the analysis stage, the analysis of the results of observations and interviews were carried out on how the gradation of teaching materials for reading Javanese according to teachers and students. The needs analysis was done by analyzing the Javanese language curriculum documents for elementary schools, the textbooks used in the ex-Surakarta Residency area.

3.1. Gradation of Reading Competence

The first criterion in assessing teaching materials is the aspect of reading competence that must be achieved at each class level, as seen in the Table 1.

Table 1. Gradation of Reading Competence

Category	A (Grade 1 Semester 1)	B (Grade 1 Semester 2)	C (Grade 2 Semester 1)	D (Grade 2 Semester 2)	E (Grade 3)
Reading competence	Able to read all phonemes, syllables, and words correctly	Able to read words, phrases, clauses, and simple sentences accurately and understand their meaning	Able to read simple sentences in a short paragraph (one paragraph) correctly and understand their meaning	Able to read sentences in short paragraphs (two paragraphs) and understand their meaning	Able to read sentences in paragraphs (more than two paragraphs) and understand their meaning

3.2. Gradation of Language Aspect

The gradation of language aspects consists of five categories for grade 1-3. On the other hand, there are six sub-aspects in language aspects. The material gradation on linguistic aspect was found in the Table 2 below.

Table 2. Gradation of Language Aspect

Category		A (Grade 1 Semester 1)	B (Grade 1 Semester 2)	C (Grade 2 Semester 1)	D (Grade 2 Semester 2)	E (Grade 3)
Language aspect	The grammatical construct of language	Letter to word	Words to simple sentences composed of two-three words	A simple sentence composed of two-five words	A simple sentence composed of two-five words	Sentences composed of a maximum of seven words forming a paragraph or dialogue
	Number of sentences on each page	0	Maximum five	Maximum ten	Maximum of ten	Maximum 25
	Sentence form	- (No sentence yet)	Question, statement	Question, statement	Question, statement, command	Questions, statements, commands

Rhyme sentences	Have not used sentences yet	Use of rhyming words in sentences	Use of rhyming words in sentences	Use of rhyming words in sentences	Using words without rhyming in sentences
Punctuation and diacritical marks	Without punctuation, complete diacritical marks	Without punctuation, complete diacritical marks	Use full periods of punctuation, commas, question marks, and diacritical marks	Use full stop punctuation, commas, question marks, exclamation marks, and diacritical marks	Use of punctuation marks (period, comma, question mark, exclamation mark, and quotation marks), complete diacritical marks
Capital letters	No capital letters	No capital letters	With capital letters	With capital letters	With capital letters

3.3. Gradation of Graphic Aspect

It included sub-aspects of letter, font size, spacing, size and portion of images, the degree of clarity of illustration, and the role of illustration. The following is a gradation of the graphic aspects of teaching materials.

Table 3. Gradation of Graphical Aspects

Category		A (Grade 1 Semester 1)	B (Grade 1 Semester 2)	C (Grade 2 Semester 1)	D (Grade 2 Semester 2)	E (Grade 3)
Graphics	Letter shape	Not decorative and unrelated letters	Not decorative and unrelated letters	Not decorative and unrelated letters	Not decorative and unrelated letters	Not decorative and unrelated letters
	Font size (points)	More than 16	16	16	14	12
	Spacing distance between lines	2	2	1.5	1.5	1.15
	Image size and proportion	Big, more than 70%	Large, maximum proportion 70%	Medium, the maximum proportion of 50%	Medium, the maximum proportion of 50%	Small, with a maximum proportion of 30%

Illustration clarity level	Tall, unambiguous, representing the sound of language	High, unambiguous, representing the meaning of the language constructs presented	Medium, representing the language construct presented	Medium, representing the language construct presented	Medium, describing the idea of the story
Illustration role	Representing the sound of language, building an atmosphere and interest in reading	Representing the sound of language, building an atmosphere and interest in reading	Building stories and reading interest	Building stories and reading interest	Provides indirect support for text

3.4. Gradation of Aspect of Teaching Material Substance

The substance aspect consists of several sub-aspects: material content, story scope, theme, and story type. The following is the gradation of the substance of the teaching material for reading the Javanese language.

Table 4. Gradation of Aspect of Teaching Materials Substance

Category		A (Grade 1 Semester 1)	B (Grade 1 Semester 2)	C (Grade 2 Semester 1)	D (Grade 2 Semester 2)	E (Grade 3)
Substance aspect	Material content	Content in the form of letters and syllables with examples taken from the closest environment (home and school)	Content in the form of syllables and sentences with examples taken from the closest environment (home and school)	Content in the form of short sentences and simple long sentences with examples taken from the closest environment (home, school, and play environment)	Content in the form of short sentences and simple long sentences with examples taken from the closest environment (home, school, play area, and community)	Content in the form of paragraphs with examples taken from the closest environment (home, school, play area, and community)
	Scope of the story	2. -	Realistic fiction, animal world, or fictional stories	Realistic fiction stories (simple and straightforward storyline), fables	Realistic fiction stories (simple and straightforward storyline), fables	Realistic fiction, non-fiction, or non-literary stories (simple and straightforward storyline)
	Theme	3. Concrete, starting from the	Concrete, starting from the smallest scope,	Concrete; reading is starting to spread to the	Abstract concepts begin to enter fables or fairy tales to instill	Concrete: reading begins to expand to abstract

	smallest scope, namely self, family, to objects or events in the home sphere	namely self, family, to objects or events in the home sphere	school and community area.	moral values.	concepts, such as noble values and social relations.
Story Type	4. -	The story is very simple and easy to guess/predict.	The story is simple and easy to guess/predict.	Realistic story with a single topic (illustrating, comparing, showing cause and effect)	Realistic stories with multiple topics (illustrative, showing cause and effect)

3.5. Gradation of Linguistic Etiquette Teaching

The last criterion used as consideration for the preparation of the material is the level of Javanese speech. Two speech levels that really need to be introduced are the ngoko speech level for themselves and the krama speech level for others who are older and more respected.

Table 5. Gradation of Unggah-Ungguh Basa (etquette) Teaching

Category		A (Grade 1 Semester 1)	B (Grade 1 Semester 2)	C (Grade 2 Semester 1)	D (Grade 2 Semester 2)	E (Grade 3)
Speech level	Choice of speech level	The choice of the ngoko lugu speech level and the introduction of the krama speech level	The choice of the ngoko lugu speech level and the introduction of the krama speech level	The choice of the ngoko lugu speech level and the introduction of the krama speech level	The choice of the ngoko lugu speech level and the teaching of the krama speech level	The choice of the ngoko lugu speech level and the teaching of the krama speech level

The Data Hyphothesis Test

The gradations of reading teaching materials and Javanese reading teaching materials validated by experts are known to be effectiveness by comparing the post-test scores of the experimental class and the control class, followed by a regression test.

Table 6. Mean Trial Scores of Grades

Grade	Mean score	
	Control Class	Experiment Class
Grade 1	71.1	76.9
Grade 2	40.6	70.3
Grade 3	61.9	81.9

The test used to determine it was the independent sample t-test. If the results of probability (sig) ≥ α, then H0 accepted, meaning that there is a difference in the mean of the two sample groups. On the other hand, if probability (sig) ≤ α then H0 rejected. This significance value is 5% or 0,05 (Di Leo &

Sardanelli, 2020). Based on the statistical data description, the mean value for each control and experimental class is as follows.

Table 7. t-test results in grade 1 to 3

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Posttest_1	Equal variances assumed	7.090	.015	5.445	62	**.017**	1.438	.588	.262	2.613
	Equal variances not assumed			5.445	61.698	**.017**	1.438	.588	.262	2.613
Posttest_2	Equal variances assumed	17.095	.000	5.660	50	**.000**	6.115	1.080	3.945	8.286
	Equal variances not assumed			5.4660	37.6894	**.000**	6.115	1.080	3.928	8.303
Posttest_3	Equal variances assumed	22.318	.000	4.438	44	**.000**	6.826	1.538	3.726	9.926
	Equal variances not assumed			4.438	28.415	**.000**	6.826	1.538	3.677	9.975

Based on the results of the t-test in grades 1, the value of Sig. 0.017 < 0.05 while grade 2 an 3 have Sig. 0.000 < 0.05. Thus, it can be interpreted that there is a significant difference between students who use books and do not use the developed books.

4. Discussion

The curriculum at the lower grade level of grades 1 and 2 had shown concreteness, but there were some inaccuracies in the order of basic competencies. For example, in class 1 material for semester 2, there was material on introducing body parts *(perangan awak)* in the variety of *ngoko* and *krama*. According to the interview with the teachers, the material should be presented in semester 1 because, in grade 1 learning, students were still taught about sound forms, letters, and reading syllables. The

introduction of these body parts could be used as initial material in learning to read and is concrete because it is close to students.

In fact, the Javanese material in grade 1 semester 1 was precisely about the names of objects around students, which the scope is wider than *perangan awak*. Here, the students should think more about the objects which the teacher chooses to teach language sound. According to interviews with students, it is the reason that Javanese is often a scourge because it is difficult to understand. Therefore, a gradation of Javanese reading was developed for the lower elementary grades.

4.1. Gradation of Aspects of Reading Competency

The gradation of teaching materials was then divided into five levels based on the stages of reading ability and grade level: level A for grade 1 semester 1, level B for grade 1 semester 2, level C for grade 2 semester 1, level D for grade 2 semester 2, and level E for grade 3. Grade 3 was no longer divided into beginning and end because the reading competence was relatively the same.

It can be seen in Table 1 that there was a gradation of competence in each class. In this case, reading competence is arranged in a gradation manner because children's reading abilities develop step by step (Ehri, 2005). Children are not automatically able to read complex readings, so the material presented in class should also be sequenced according to the child's developmental stages.

The first criterion was reading competence to be achieved after using teaching reading materials arranged by gradation. For grade 1 semester 1 or grade A, the targeted reading competence is that students can recognize, understand, and master all Javanese phonemes (phonemic awareness and phonics) and syllables and read words correctly. At the end of this level, children are expected to understand the meaning of the word that a word can describe an object (noun), an activity (verb), synonyms, and antonyms (Armbruster et al., 2001). For grade 1 semester 2 or grade B, the targeted reading competence is being able to read simple words, phrases, clauses, and sentences. At this level, the number of words in the sentence is also considered, consisting of two-three words and already has a complete meaning. In this phase, it is hoped that children will understand that there is a relationship between words so that they can be arranged into phrases, clauses, or sentences (Armbruster et al., 2001).

For grade 2 semester 1 or grade C, the targeted reading competence is that students can read a single sentence arranged in the form of a short paragraph. For grade 2 semester 2, the targeted reading competence is that students can read sentences arranged in the form of short paragraphs (two paragraphs). For grade 3, the targeted reading competence is that students can read sentences composed of more than two paragraphs. At level E, teaching materials are provided for children to have the competence to read sentences in long paragraphs (more than two paragraphs) correctly and understand their meanings, which are composed of single sentences and compound sentences. Armbruster et al. (2001) stated that students at this level are expected to distinguish nouns, verbs, adjectives, and adverbs.

4.2. Gradation of Linguistic Aspects

The first linguistic aspect is related to the grammatical construct of language. The grammatical constructs of language presented at level A are letters or phonemes, syllables, and words. It is in accordance with the (Menteri Pendidikan dan Kebudayaan., 2016), that grade 1 of elementary school is only prepared to start reading with language material from pronouncing letters to sentences. The grammatical constructs of language presented in level B material are words, phrases, clauses, and

simple sentences, composed of two-three words. The number of sentences per page is limited to a maximum of five sentences per page.

Furthermore, the grammatical constructs of language presented at levels C and D are sentences composed of a maximum of five words. The number of sentences per page is limited to a maximum of ten sentences per page. Finally, the grammatical construct of the language presented at level E is a sentence consisting of a maximum of seven words. These sentences are arranged into paragraphs or dialogues consisting of a maximum of 25 sentences per page (Anwas, 2020).

The next aspect is related to sentence form and rhyme. For level A, sentences have not been presented, so there are no provisions on how the form and rhyme of sentences are used. At levels B and C, they have presented grammatical constructs in the form of statement and interrogative sentences and used sentence rhymes to make it easier for children to learn to read (Goswami & Bryant, n.d.; Stuart et al., 2003; Wylie & Durrell, 1970). At level D, they have presented sentences in the form of statements, questions, and commands and still use sentence rhymes. Level E is the highest level that has presented the most complex grammatical constructs (Armbruster et al., 2001). At this level, statements, questions, and commands have been presented to form readings of more than two paragraphs or in the form of dialogue.

Another thing that needs to be considered is related to punctuation marks, diacritical marks, and capital letters in teaching materials. At levels A and B or grade I, the material is presented without punctuation and capital letters (Menteri Pendidikan dan Kebudayaan., 2016). Furthermore, the reading material is written using punctuation marks and capital letters at levels C, D, and E (Menteri Pendidikan dan Kebudayaan., 2016).

4.3. Gradation of Graphic Aspects

The third criterion is the graphic aspect. In this study, the graphic aspect includes the sub-aspects of letter shape, font size, spacing, image size and proportion, illustration clarity level, and illustration role. For graphics, all grade levels are required to pay attention to text features, which will affect the level of text legibility. Legibility relates to the ability of a text to be identified and the ease of the eye to detect words and letters, which are very important in the reading process (Tarasov et al., 2015).

The first sub-aspect is the selection of the font type. The choice of font type affects the level of the text legibility (McCarthy & Mothersbaugh, 2002). The font type must be clearly legible or not an art font type, such as the Jokerman or Mistral font types, which really need high focus to be legible. The results showed that sans serif and serif fonts had high legibility.

The second sub-aspect is font size. The font sizes for grades 1, 2, and 3 are larger than those for upper-grade levels. Paterson and Tinker (1931) stated that lowercase letters would make the eyes move slower and work harder so that readers need more time and pause to understand the letters. In this case, grades 1 up to 3 are in the learning to read stage. Therefore, to make it easier to read, the font size is increased.

Teaching materials at level A are presented in capital letters with more than 16 points. Teaching materials at level B are presented with 16-point letters. Meanwhile, for level C, the material is written using letters smaller than the size of the letters in levels A and B, which is 14 points. The size of level D and level E uses a smaller font size or tends to be normal, which is 12 points.

The third sub-graphical aspect is the spacing between lines. The amount of space affects a person's ability to read text. In this study, the spacing for levels A, B, and C is 2. It aims to prevent children's eyes from feeling tired to learn to read well (Kolers et al., 1981). Meanwhile, the distance between C

and D is 1.5 spaces because children at this level have better reading skills. It indicates that children's eyes should be able to adapt so that a smaller amount of space does not interfere with the reading process (Anwas, 2020; Paterson & Tinker, 1931).

Furthermore, the presentation of images in reading material is also given a gradation. According to their function, the pictures in the teaching materials for grades 1 to 3 are given in a gradation manner. For levels A and B, the material is dominated by pictures. Here, there is a direct relationship between images and text (Fountas & Pinnel, 1996).

For level A, the image size is large, with the proportion of the image more than 70%. It is also the case for level B, and only grammatical constructs are represented by broader pictures, namely words, phrases, clauses, or sentences. The image size is medium for levels C and D, with a maximum proportion of 50%. In this case, images or illustrations still have the function of supporting text (Fountas & Pinnel, 1996). Meanwhile, at level E, the proportion of text or writing is more than images. The image size is small for level E, with a maximum image proportion of 30%. This is obtained from qualitative observation data related to the gradation of graphic aspects.

Gradations in the sub-aspects of images or illustrations can be seen from the role and level of clarity of the illustrations in the reading material. For grades A and B, illustrations have a high level of clarity (do not make students think twice) and are in accordance with the child's level of knowledge to pronounce language sounds. For levels C and D, the illustrations are clear and depict the idea of the story. Meanwhile, for level E, the role of illustration is to provide indirect support for the text or represent the text presented.

4.4. Gradation of Aspects of Teaching Material

The fourth criterion is related to the substance aspect. At levels A and B, the material content is in the form of letters, syllables, and words. The material content to be introduced to students is concrete by presenting examples close to the daily life of grade 1 students, namely objects and activities in themselves, their home environment, and their class/school environment. For level C, material related to the environment and broader activities are presented, namely the play environment. Meanwhile, at levels D and E, a wider environment is presented namely the environment and daily interaction activities in society.

The second sub-aspect in the criteria for material substance is the scope or type of story. For level A, the reading material still focuses on letters and picture so that no story form is presented. At level B, realistic reading material realistic reading materials such as fiction have been introduced at this level are children's songs and realistic fiction (Menteri Pendidikan dan Kebudayaan., 2016). At levels C and D, the stories presented are realistic fiction because children start to understand their roles in real life. Meanwhile, children are increasingly aware of who they are and their role in life for level E, so the stories presented are realistic fiction and non-fiction.

The third sub-aspect is the theme. Meaningful learning leads to producing, organizing, uniting, and integrating student experiences to draw conclusions and apply the acquired knowledge (Karpicke & Grimaldi, 2012). Meanwhile, Islamiati and Fasha (2021) state that providing contextual material with everyday life can help students relate it to their daily activities so that students can easily understand the material provided by the teacher. The themes are then sorted and made gradations. The gradation in this aspect of the theme can be seen in the range of story themes at level A, which starts from the smallest, simple, and concrete theme, namely oneself, to the broadest, complex, and abstract theme at level E, namely character values in wayang stories (Sukmadinata, 2009).

4.5. Gradation of Linguistic Etiquette Teaching

Understanding *unggah-ungguh basa* (etiquette) in lower grades is not given theoretically but through ways that are more relevant to the child's world and graded according to their cognitive range, such as presenting examples of introducing language use in the form of songs for levels A to C. For levels D and E*, unggah-ungguh basa* (etiquette) in dialogue has started to be taught. This is crucial since linguistic etiquette teaches the rules that exist in the Javanese community that are focused on how to speak and behave with others in order to respect or appreciate them (Darmayanti & Subrata, 2012). In addition, the nature and behavior of Javanese people reflects through their language and way of speaking (Sartini, 2009). In this case, the linguistic etiquette learning is focused on the form of exercises using a variety of *ngoko*, *krama*, and *krama inggil*.

Data Hypothesis Test

Based on the statistical data description, the average values for each control class and experimental class in Table 6 show that the average scores of experimental grade 1 up to 3 are higher than those of control classes. Therefore, it concludes that there is a difference between experimental classes or classes taught using tiered Javanese reading teaching materials and control classes or classes taught using school textbooks. Furthermore, to prove whether the difference is significant or not, the following Table 7 presents the results of the t-test with an independent sample test. Based on the results of the t-test, class 1 obtains a value of Sig. $0.017 < 0.05$ while class 2 and 3 get a Sig value. $0.000 < 0.05$.

Thus, it indicates that there is significant difference between students who use updated books and do not use updated books. In line with the results of the study (Hariadi, 2020) that after students are taught with the Wawanrembug Text, students' learning outcomes increase in experimental classes. It is also supported from the results of research (Septiani et al., 2020) that the development of interactive multimedia Gaung Baja is effective in the learning of linguistic etiquette. Similarly in line with the results of research (Darmayanti & Subrata, 2012; Hariadi, 2020) that there is a difference between control classes that are treated using student book teaching materials and experimental classes that use multimedia development.

The last stage of this research is the evaluation stage. At this stage, the researchers used the information at the trial stage to improve the still lacking parts. Among them was the editorial on the gradation guidelines being consistent, namely the use of the terms structure and grammatical constructs of the language, because there were still mistakes. This was in line with the opinion (Setyawan, 2019) that students made mistakes in the use of various languages, for example when students answered the questions from teachers by using *ngoko*.

5. Conclusion

The gradation of Javanese reading material provides a clear picture of how the teaching materials are arranged in stages so that there are stages of reading competence that will be achieved at each level. This stage of reading competence is achieved by providing teaching materials that support, accommodate, and facilitate students to learn to read gradually. The teaching materials were developed by considering aspects of the material gradation guidelines, such as linguistic, graphic, substance, and *unggah-ungguh basa* (etiquette) aspects. The right teaching materials are believed to help students learn to read comfortably and not be burdened with material that is not in accordance with their language and cognitive development.

Recommendations

Children's reading ability is still developing, so suggestions for other researchers are to develop gradations of Javanese reading teaching materials for upper elementary grades. Gradation of material that is clearly arranged in stages will make the material show learning continuum. The continuity and sustainability of reading material will also make children's reading skills develop well.

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