

A content analysis of the language quality of thematic textbooks for elementary school students

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ABSTRACT

Primary school students rely heavily on textbooks for instruction. Using the variety of textbooks, a description of the theme textbooks' linguistic quality is conspicuously absent, particularly for students in the fifth grade. Language fit for students' growth, communicative language, and coherence and cohesiveness were all included in this study's analysis of textbooks' language quality. Qualitative content analysis was used in this study's methodology. All texts from the heat and transfer-themed of fifth-grade textbooks published by the Indonesian Ministry of Education and Culture, Yudhistira, and Erlangga publishers were included in the study. Documentation was utilized to collect the data. Sample, record, reduce, infer, and narrate were all data analysis approaches used. The findings of this research indicated that the three publishers' textbooks had excellent language quality in terms of language compatibility for students' growth and the communicative language issued by the Indonesian Ministry of Education and Culture and Erlangga was wonderful, but Yudhistira was awful. There were a lot of solid points made in the Ministry of Education and Culture's publications. Both Yudhistira and Erlangga performed admirably. The quality of textbook language was found to be satisfactory in this study.

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1. INTRODUCTION

The most important activities in education are learning activities. Teachers employ a variety of learning aids to attain learning objectives. Textbooks remain the primary source of learning, even at the basic school level. According to Article 1 of the Regulation Minister of Education and Culture's (Permendikbud) No. 8 of 2016 governing books used by education units, textbooks are the major learning source for obtaining fundamental and core abilities [1]. Textbooks are the primary learning resource for primary school instructors in Indonesia. According to a survey on learning resources in learning activities done by the Ministry of Education and Culture's Primary School Directorate in 2020, 57.8% of instructors use learning resources in the form of textbooks [2].

Primary school textbooks are reference books used to improve the mastery of knowledge, personality, and skills based on the national education standards (SNP) [3]. Textbooks are used because they have a great influence on students [4]. The textbooks used at the primary school age level are thematic textbooks according to the 2013 curriculum. Thematic textbooks are textbooks that have thematic learning qualities [5]. Textbooks used in learning must be of high quality from various aspects [6]. Quality textbooks must meet four criteria: content suitability, presentation, language, and graphics [7].

Language is a characteristic that must be considered in textbooks. The language quality of textbooks can be assessed from three indicators, they are the language quality of textbooks can be examined using three indicators: i) Fit for the students' developmental stage; ii) Communicative language; and iii) Coherence and cohesiveness [8]. Textbook language quality must be communicative with direct indicators of material and dialogic [9]. The importance of textbook quality are effective sentences, word accuracy, and term standardization in the material [10]. Language errors can still be discovered in textbooks. There were grammatical problems, capitalization errors, punctuation errors, and sentence writing errors. However, several types of textbooks are available in the market from diverse publishers [11]. Each textbook covers a different facet of language.

There had been some previous research on textbook quality. Haulle [12], Afifah [13], Mustadi [14], Dewi & Taufina [15], Winiarti [16], Yuniarto [17], and Puspito [18] conducted content analyses of textbook. Following that, Irsyada [19] and Simamora and Sudarma [20] conducted an analysis of the quality of textbooks in terms of content and presentation. Ernawati then conducted a textbook analysis based on content, language, and presentation characteristics [21]. Furthermore Mohammadi and Abdi [22] and Ulfa [23] examined textbooks in terms of language and content. Meanwhile, Purnanto and Mustadi already conducted an examination of the quality of language-focused textbooks [9]. However, previous studies did not investigate the language quality of fifth-grade theme textbooks from diverse publishers. Furthermore, the previous study did not describe the language quality of textbooks based on indices of student growth, communicative language, coherence, and cohesiveness.

Based on the description above, it is essential to make research the textbooks' language quality for fifth-grade students with the theme of heat and transfer. This theme was chosen because it has a wide range of learning activities that can represent other themes. This study examined three books, those published by the Indonesian Ministry of Education and Culture (Kemendikbud), Erlangga, and Yudhistira. These three books were chosen since they are the most widely distributed books on the market and the most frequently used by teachers [9]. The textbooks' language quality was examined in three indicators. Muslich [8] stated that there are three indicators of language quality to consider: the suitability for the students' development level, the use of communicative language, and coherence and cohesion.

The suitability for the students' development level according to Muslich [8] has indicators: i) Suitability to the intellectual development level, such as the language used in textbooks to describe and apply concepts, and illustrations to abstract examples related to the student's intellectual level, therefore they can create their imagination; and ii) Suitability to the social-emotional development level, they are the language used in textbooks according to the social-emotional maturity level of students with illustrations that describe concepts from the immediate or local environment to the global environment and integrate problem-solving.

The communicative language has indicators such as: i) Readability of messages, the messages conveyed in textbooks using language that are interesting, clear, right-on target, do not cause ambiguous meanings by using effective sentences, and it is generally written communication in Indonesian so that it encourages students to study textbooks in-depth and thoroughly [8]; ii) The accuracy of the language rules, they are the words and phrases included to convey the material or information in the textbooks, it should be adjusted to the reference to the Indonesian language rules, the enhanced spelling (EYD). The use of the term should describe a concept or principle, its definition must be explicit and consistent; iii) The material is straightforward, such as effective sentences and the use of the language used is quite simple because students only deal with teaching materials when studying independently; and iv) Conversational interactive dialogical language to encourage students to learn [9].

Coherence and cohesion have indicators: i) Inter-chapter coherence and cohesion, which refers to the delivery of messages between one chapter and another, including themes and sub-themes that describe logical and close relationships; ii) Coherence and cohesion between paragraphs, which refer to the delivery of messages between one paragraph and another describes the logical relationship, and one sentence and another describes a logical relationship [8]. Based on the description, this study aimed at explaining the language quality textbooks, in terms of: i) Language suitability for students' development; ii) Communicative language; and iii) Coherence and cohesion.

2. RESEARCH METHOD

This study employed a qualitative content analysis. The qualitative design was chosen because this study produced a description in the form of words that emphasized the meaning of the research results. This study used content analysis since it analyzed documents in the form of students' thematic textbooks rather than human behavior directly. The object of research was thematic textbooks language for fifth-grade primary school. The data included all texts in the thematic textbooks for fifth grade. The data collected was

sourced from all contents of thematic textbooks, they were: i) The fifth-grade students' book entitled 'Heat transfer, 2013 curriculum integrated thematic book' written by Fransiska and Diana Karitas [24] published by the Kemendikbud, it referred as the first book; ii) A book entitled 'Integrated thematic for fifth grade primary schools themes of heat transfer' written by Wini K, Fransiska, Irene MJA [25] published by Erlangga, it referred as the second book; and iii) A book entitled 'Thematic textbook integrated heat transfer fifth grade primary school' written by Dr. Dhiah Saptorini, SE, M.Pd. and Dr. Lili Nur Laili, M.Pd. [26] published by Yudhishthira, and it was referred to as the third book.

The data collection technique used was documentation. Documentation was conducted by taking in-depth notes and considering the indicators described in the Table 1 while Table 2 presents the rubric was used to assess thematic textbooks language quality for fifth grade. The data analysis technique used was the content analysis technique according to Krippendorff [27] includes unitizing, sampling, recording, reducing, inferring, and narrating. The test of validity data used expert judgment.

Table 1. Thematic textbooks language indicators for primary school students

No	Criteria	Indicators
1	Suitability for the students' development level	Suitability to the level of intellectual development includes a. Language in elaborating concepts and applying imaginative concepts b. Language in writing abstracts and imaginative illustrations Suitability to the level of socio-emotional development a. Language in describing something from local to global concepts b. Language directs students to solve problems
2	Communicative language	Readability of messages Accuracy of language rules Straightforwards' material Interactive dialogic
3	Coherence and cohesion	Coherence between chapters Cohesion between chapters Coherence between paragraphs Cohesion between paragraph

Source: Muslich [8], Purnanto and Mustadi [9]

Table 2. Thematic textbooks language quality rubric for primary school

No	Criteria	Very good	Good	Fairly good	Poor
1	Suitability with intellectual level	Meets 4 indicators	Meets 3 indicators	Meets 2 indicators	Meets 1 indicator or does not meet all indicators
2	Communicative language	Meets 4 indicators	Meets 3 indicators	Meets 2 indicators	Meets 1 indicator or does not meet all indicators
3	Coherence and cohesion	Meets 4 indicators	Meets 3 indicators	Meets 2 indicators	Meets 1 indicator or does not meet all indicators

3. RESULTS AND DISCUSSION

3.1. Result

3.1.1. Language suitability of thematic textbooks with the development of students

The language suitability of thematic textbooks with students is divided into four aspects. They are: i) Concept elaboration with imaginative examples; ii) Describing abstracts and imaginative illustrations; iii) Concept elaboration in language from narrow to broad, and iv) Problem-solving language.

a. Concept elaboration with imaginative example

The first book described concepts in the form of reading texts. The reading text consisted of three to five paragraphs. This book described the concepts with examples of application in everyday life that can be imagined by students. The first example was the elaboration of the concept of human-nature relationships (p. 24). It explained how humans and nature are interconnected. Nature provides needs for humans while human activities affect the environment. The elaboration of this concept is then followed by its application in everyday life. The application described in the sentence "for example, farmers have to adjust the planting time to the rainy season so that their crops can grow well" and another example in the sentence "for example, to cope with drought, humans try to make artificial rain". The second example described the concept of negative human influence on the natural environment (p. 40). The text explained how human behaviors can damage nature. The sentence "for example, a flood occurs because the water channel is disturbed by the waste of human activities" is then used to illustrate the concept's elaboration.

The second book described concepts in the reading text as paragraphs. This book explained why the sun is the most powerful source of heat energy. The sun provides numerous advantages to human life. The

concept was then explained, followed by examples of how solar energy was used in everyday life. The example of the sentence was “heat and light energy are used for a variety of purposes, including photosynthesis, warming the body, drying clothes, and drying rice, corn, and salted fish” (p. 4). The second example described the dominant concept of human interaction in nature. This concept was explained with an imaginative example in the sentence for example “humans try to modify the weather by developing artificial rain technology to increase agricultural product” (p. 20).

The third book described concepts in the form of paragraphs, with examples from everyday life. This book described the expansion and contraction events. This book defined expansion as the event of an object’s size increasing when heated. This concept was then illustrated with images of curved railroad tracks in hot weather and broken windows in hot weather (p. 20). The second example in this textbook explained the events of conduction, convection, and radiation. Each of these three events was described in detail. Then it was given an example. Conduction, for example, a metal spoon will feel hot when placed in hot soup; conduction, for example, boiled the water and it will boil, and convection for example the body feels hot when near a campfire (p. 43).

b. Description of abstract concepts with imaginative illustration language

The first book described concepts with illustrations that clarified abstract concepts. An explanation of the concept of heat transfer by conduction. The illustration used to clarify the concept is conduction events can be likened to the activity of moving books in a relay carried out with friends. The book that is transferred is likened to heat and the person who moves it is the intermediary. When you and your friends move the book, remember, only books move, while you do not move or stay in place. Similarly, only the heat that moves through the medium remains constant in conduction (p. 74). Another example is the heat transfer by convection, for example, when you move a book to another place, you will certainly come with the book. If the book is likened to heat energy and you are the medium, then heat transfer by convection will include an intermediary (p. 80). The description can be found in the textbook in Figure 1 and Figure 2.

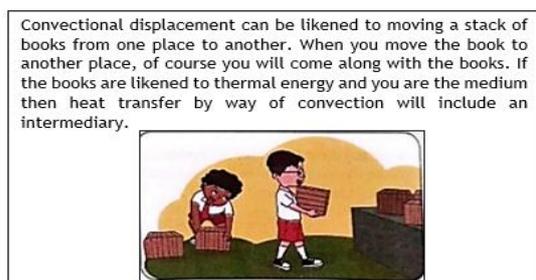


Figure 1. Explanation of conduction with illustration on the first book page 74

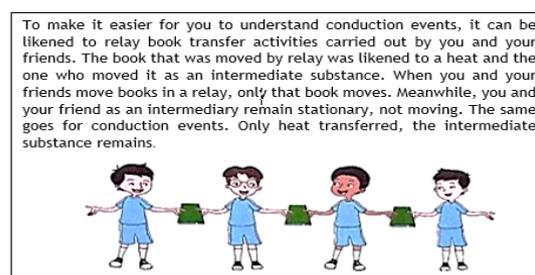


Figure 2. Explanation of convection with illustration on the first book page 80

The second book contained illustrations that help to clarify abstract concepts. This book described conduction using a book relay that is transferred from one hand to the other. Only the book moved in this case, but you and your friend did not (p. 57). The concept of convection is explained in the second example. Convection is analogous to moving a book from a cupboard to a table. To carry the book, of course, you move from the cupboard to the table (p. 63). The description was found in the textbook in Figure 3.

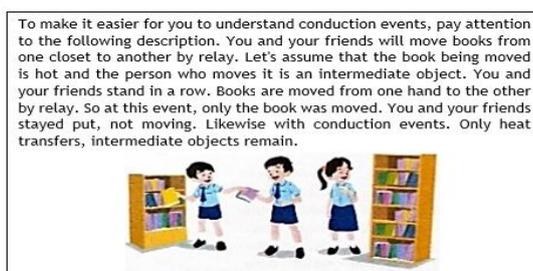


Figure 3. Explanation of conduction with illustration on the second book page 57

The third book explained the concept of heat energy sources with illustrations. The illustration contained in the text was when we rub our hands and put them on our cheeks, it will produce heat (p. 4). Further explanation regarding the problem of congestion in the city of Jakarta. The illustration of this concept was the vehicle users who take the opposite direction in inappropriate places and pedestrians who cross the road without using the pedestrian bridge or zebra cross that has been provided (p. 107).

c. Concept elaboration from narrow to broad language

The first book introduced concepts using the languages that surround us. The concept was explained in nearby languages, such as the *Cublak-Cublak Suweng* song in Central Java, and then continued to the *Cing Cangkeling* song in West Java, and so on. The second book first described the concept in a limited language before broadening on it. The first example in Lesson 1's Sub-theme 1 is from the guide "Identifying heat sources in the surrounding environment." Students begin by learning about things in their surrounding environment. For example, clothes that dry in the sun. In addition, the explanation of the dance is explained from the dances that are often heard in the Java area, such as the *Jaran Kepang* dance, and the *Bedhaya Tawang* dance, to dances originating from other islands such as the *Kecak* dance. The third book explained the concepts in language that is easy and often heard in the environment. The first example is for a hot explanation "Raya's mother is boiling water to make tea and cooking fried rice. Mother will." The next economic activity mentioned earlier, farming, is the most closely related to our environment.

d. Problem solving language

The first book employed language that encourages students to solve problems. The first example showed a picture with the text "What do you think about the two pictures above? What will happen to the first and second pictures? Have you ever been in that situation? Discuss it with your classmates!" (p. 39). The second activity was to identify the type of interaction activity, negative influence, and efforts to improve. The following example is experimental activities to discover a concept. This activity is labeled with words like "Investigating convection heat transfer" and "Investigating radiation heat transfer."

The second book employed sentences that guide students in making decisions. The first example is presented in the form of interrogative sentences such as "Why are so many spoons entirely made of wood?" "How come the iron base is made of metal but the handle is plastic or wood?" (p. 59). The following example is that this book also guides students to write down their understanding of social issues such as pollution, traffic jams, and crime. Thereafter, students are required to write down the causes, effects, and solutions (p. 125).

The third book employed sentences that guide students in problem-solving. In the first case, students were told to conduct experiments to "justify that heat can be transferred without being followed by an intermediate substance" (p.44). The next example is presented with a problem, namely Toni who often watches football but often forgets about assignments and is late. Then students are asked to answer the question "how should Toni's attitude be?" (p. 66). Based on the description, the language quality textbooks in terms of language suitability with the students' development level can be presented in the Table 3.

Tabel 3. Language suitability with the development of students

No	Publisher of thematic books for fifth grade heat transfer	Language concept elaboration with imaginative example	Indicators			Quality
			Description of abstract concepts with imaginative illustration language	Concept elaboration from narrow to broad language	Problem solving language	
1	Book 1	Fulfilled	Fulfilled	Fulfilled	Fulfilled	Very good
2	Book 2	Fulfilled	Fulfilled	Fulfilled	Fulfilled	Very good
3	Book 3	Fulfilled	Fulfilled	Fulfilled	Fulfilled	Very good

3.1.2. Communicative language of thematic textbooks for primary school

The indicators of the communicative language of thematic textbooks for fifth grade heat transfer were described in four aspects. They are: i) Readability of message; ii) The accuracy of language rules; iii) Straightforward materials; and iv) Interactive dialogical language.

a. Readability of message

The first book on the aspect of message readability, this book used language that attracts students to read. As an example of using the word "Did you know" in the information box. This phrase is used to begin a conversation about something interesting. The following is an example of a text snippet from this book.

"Do you know? The first thermometer was made in 1592 by an Italian scientist named Galileo Galilei..." (p. 14)

“Do you know? Gamelan is a collection of traditional musical instruments. Any musical instrument that...” (p. 17)

This book also employed instructions in each activity such as “Let’s observe”, “Let’s read”, “Let’s discuss”, “Let’s try”, and “Let’s practice”. The material in the second book was delivered using interesting language. “Now I know” is an interesting word found in this textbook. “Now I know” was used as a prelude in explaining the material in the textbook. The phrase “Now I know” was used in the following example.

“Now I know. The text entitled sources of thermal energy is an example of an explanation text. The Explanation Text is...” (p. 6)

“Now I know. The *Cublak-Cublak Suweng* song that you have sung using a *slendro* pentatonic scale. What do you mean...” (p. 11)

However, words and sentences that have ambiguous meanings were still found in the book. In the textbook, there were still incomplete instructions, namely the writing of the following instructions. “Fill each plastic container with the same number of ice cubes” (p. 9). This sentence should not only be the same number but the same shape and size so that the changes that occur can be measured. This is because if the number is the same, but the shape and size are different, they cannot be measured with certainty the changes that occur. It was found that words that have fewer clear meanings are the word “ordinary” in the sentence “we often feel hot, cold, warm, and ordinary” (p. 13). There is a term that is not explained, namely the word “molecule”. In textbooks, the word “above” is also found in referring to the text in question. Whereas in the book, above the sentence there is no intended reading. The word “above” should be replaced with the title of the reading in question.

The third book introduced new terms with clear explanations, such as “Article” and “Ebonite.” The words above are not written, as in the example below, but the title “Sources of thermal energy around us” is written following the title of the text in question. The language was used as an interesting introduction in the form of stories in everyday life. For example, “Today the sun is shining brightly. Once Nina wipes the sweat that drips from her forehead. Nina then rushed to find an ice-cream seller. When the weather is hot, enjoying ice cream is delicious. Nina bought two ice creams (p. 8)”. This paragraph is used as an introduction to explain how objects’ shapes change.

b. The accuracy of language rules

The first book on the aspect of the language rules accuracy discovered words and sentences that did not follow the rules. This inaccuracy can be seen in the writing of numbers that did not match the rules of the sentence “Prepare the following tools and materials: 3 containers for ice cubes, 6 ice cubes, The numbers 3 and 6 in the sentence should be written with the letters “three” and “six” (p. 7). The next inaccuracy is in the punctuation in the following sentence.

“This is, because plants help the soil retain water.” (p. 25)

A comma after because it should not need to be included.

“Write an article in one paragraph that explains the text above” (p. 28)

The period after the sentence should be an exclamation point because it is a command sentence.

There is also a typo in this book, which is the word “Mensahkan” (p. 32). The word “*Mensahkan*” does not correspond to the General Guidelines for Indonesian Spelling (PUEBI). It should be written as “*Mengesahkan*” (validate).

In the second book on the aspect of the language rules accuracy, there were still inaccuracies in the writing of words and sentences that are not related to the accuracy of language rules. The inaccuracy is in the writing of numbers that should be written in letters “A diatonic scale is a scale composed of 7 main notes, namely ...” (p. 11). The number 7 should be written with the letter “seven”. There was still typo in the writing, such as the word “*Melalui*” (through) is written with the word “*Melalu*”. In addition, there were also errors in the use of punctuation as follows.

“Try to observe the people’s economic activities” (p. 19)

Commands should use an exclamation point instead of a period.

“Make groups consist of 4-5 students”.

Commands should use an exclamation point instead of a period.

The third book on the aspect of language rules accuracy found discrepancies with language rules. There is an error in the number written in the sentence. The following sentences were an example of writing.

“On the surface, there is always an explosion that produces giant flames whose size is 40 or 50 times larger than the earth” (p. 2)

Writing the numbers 40 and 50 should be written with the letters “forty” and “fifty”.

Writing the title “Explaining the meaning of rights, obligations, and responsibilities (As) citizens of the community” (p. 19). The word (As) in the title s should be lowercase because it is a conjunction.

c. Straightforward materials

The first book on the straightforward aspect of the material found sentences that were ineffective in paragraphs. The following were some examples of ineffective sentences mentioned in paragraphs. The sentence “For example, a flood occurs because the water channel is disturbed by garbage from human activities is one example” (p. 40) was not an effective sentence. The sentence was not effective because it repeated the word “for example” in a sentence. This causes redundancy so that the sentence is too long, not simple, and not dense in meaning so that the explanation of the material is not straightforward. Another ineffective sentence is “*Saya bersyukur tinggal di daerah yang memiliki hasil pertanian yang melimpah*” (p. 31). The word “yang” in this sentence should be written once, “*Saya bersyukur tinggal di daerah yang memiliki hasil pertanian melimpah.*” “I am grateful to live in an area that has abundant agricultural products.”.

The second book on the straightforward aspect of the material discovered ineffective sentences. An ineffective sentence is “Try to write down the paragraph how many main ideas are below”. It should be “Try to write down in what paragraph the following main ideas are.”

The third book on the straightforward aspect of the material contained an ambiguous sentence, it was “The mechanism for the occurrence of the greenhouse effect” (p. 23). The word mechanism should be written in “the process”, it was made more straightforward and easier to understand. The next sentence was “Recently, the taste of salt can turn into sweet for salt farmers in Jepara” (p. 17). This sentence was less straightforward because it implied an indirect meaning.

d. Dialogic interactive language

The first book found interactive and dialogical aspects of language. The interactive sentence meant, for example, was presented a picture of garbage in the sea and then presented an interactive sentence “What can you tell about the pictures above? Have you ever met him in your neighborhood? What do you think about the picture? What do you think caused this to happen?” (p. 39). In addition to interactive sentences, it is also presented in the form of dialogue or conversation. The conversation was an introduction to each lesson. The second book used interactive language at the beginning of the sub-themes and interactive questions in the material description. Conversations at the beginning of the sub-theme can encourage students to learn more about the content of the material. The third book employed visuals, which were followed by interactive sentences. For example, “Take a look at your surroundings! How is your living environment? What privileges does it have? Are there any economic activities carried out by the community as a characteristic of your area?”. In addition, there are also conversations in the textbook. Table 4 is based on descriptions of language communicative indicators in three thematic textbooks for fifth-grade heat transfer.

Table 4. Communicative language of thematic textbooks

No	Thematic textbooks for fifth grade 'heat transfer'	Indicators				Quality
		Readability of message	Accuracy of language rules	Straightforward materials	Dialogic interactive language	
1	Book 1	Fulfilled	Not fulfilled	Not fulfilled	Fulfilled	Fairly good
2	Book 2	Not fulfilled	Not fulfilled	Not fulfilled	Fulfilled	Poor
3	Book 3	Fulfilled	Not fulfilled	Not fulfilled	Fulfilled	Fairly good

3.1.3. The coherence and cohesion

The coherence and cohesion can be seen from four aspects. They are: i) Coherence and cohesion between chapters; ii) Coherence and cohesion between learning; iii) Coherence and cohesion between paragraphs; and iv) Coherence and cohesion between sentences.

a. The coherence and cohesion between sub-themes

The first, second, and third books all have the same sub-theme: i) Temperature and heat; ii) Heat Transfer around us; and iii) The effect of heat on life. The titles of the sub-themes were related to the theme of this book, namely transfer and heat. Sub-theme 1 to sub-theme 3 in order from the introduction of temperature and heat, then the application of heat transfer around to its effect in everyday life. These three sub-themes are coherent and intact in the theme of heat transfer.

b. The coherence and cohesion between learning

The first book contained coherence and cohesion between learnings in sub-themes. As an example of the science lesson, in theme 6 sub-theme 1 temperature and heat were coherent and cohesive with the learning in the sub-theme. Learning 1 discussed heat energy sources (p. 2), learning 2 discussed the difference between temperature and heat (p. 11) and learning 5 discussed changes in temperature (p. 51). On

theme 2 heat transfer around us, learning 1 discussed heat and heat transfer (p. 69), learning 2 heat transfer by convection (p. 73), and learning 5 heat transfer by radiation (p. 118). Sub-theme 3 The effect of heat on learning life 1 conductor and insulator material (p. 137) learning 2 the use of conductors and insulators, learning 5 conductor and insulator materials around us. Based on this description, there was coherence and cohesion, justified by the themes, sub-themes, and materials in the learning.

In the second book, it was discovered that there was coherence and cohesion between one lesson and another in a sub-theme. For example, in the lesson on civics learning material about rights, obligations, and responsibilities. In sub-theme 1 learning 3 learned about conventions on children's rights (p. 25), learning 4 about the rights and obligations of a student (p. 35), student's rights and obligations at home and in society (p. 36), and learning 6 about responsibilities as citizens (p. 45).

The third book had a coherence between learning. For example, in the Indonesian lesson. The first learning was about understanding explanatory texts, the second learning was an explanatory text, the third learning was about characteristics of explanatory texts, the fifth learning about finding important information in explanatory texts, and the sixth learning about summarizing explanatory texts. The description showed that every learning is interrelated, coherent, and cohesive.

c. The coherence and cohesion between paragraphs

The first book had coherence and cohesion between paragraphs. For example, the text entitled "Knowing *Pendet* dance from Bali" showed that the paragraphs were coherent from the first to the last paragraph (p. 127). The first paragraph discussed the introduction of *Pendet* dance, the second paragraph discussed the development of *Pendet* dance from year to year, and the third paragraph discussed the story contained in the dance and the floor pattern of the *Pendet* dance. The text showed that the paragraphs were coherent so that they form cohesion.

In the second book, some paragraphs were neither coherent nor cohesive. For example, the first paragraph described a picture of a mother's ironing activity. The next paragraphs explained the story images. However, no relationship between paragraphs indicates that the picture of the mother ironing is the picture of the story (p. 20). Furthermore, some paragraphs were not related to each other such as between expansion and song, they should be able to find a relationship so that it can be related to the song (p. 37).

In the third book, some paragraphs did not show a clear connection. There were several incoherent paragraphs. For example, the first paragraph described the sun as the largest thermal energy on earth. However, the second paragraph described camping activities without a sentence connecting the two paragraphs (p. 5). Furthermore, some paragraphs were not coherent and cohesive with the theme "heat transfer". In addition, paragraphs were found that did not match the book's theme, such as about plantation crops, Proboscis monkey the dutch Monkey, and insect the lord of the earth.

d. The coherence and cohesion between sentences

There were coherent and cohesive sentences in the first book. They can be seen from the adjacent sentences in the paragraph as in the following paragraph, "Heat transfer by conduction is also called heat transfer by conduction, it is the transfer of heat without moving the intermediate substance. In the case of conduction heat transfer, only the heat energy is transferred. Generally, conduction heat transfer occurs in solids" (p. 73). Adjacent sentences have a logical relationship as an explanation of the main sentence.

The second book had sentences that were not coherent and cohesive in paragraphs. For instance, in the following paragraph, "To make it easier for you to understand conduction, consider the following description. You will be moving piles of books from the cupboard to the table. Books are likened to heat, while you are likened to a medium. To bring the book, of course, you must move from the cupboard to the table. So, conduction heat transfer includes the transfer of intermediate objects" (p. 63). In this paragraph, the explanatory sentence did not explain conduction events but convection events. This showed that the sentences were not coherent and cohesive.

The third book had coherence and cohesive sentences. For example, "heat is also produced by electrical energy. Heat is generated by electrical devices that can convert electrical energy into heat. Some of these electric tools include irons, ovens, and electric stoves" (p. 80). This explanatory sentence had a logical relationship so that it is coherent and cohesive. Based on the description, the indicators of coherence and cohesion language, it presented in the Table 5.

Table 5. The language coherence and cohesion

No	Thematic textbooks for fifth grade heat transfer	Indicators				Quality
		Between sub-theme	Between learning	Between paragraph	Between language	
1	Book 1	Fulfilled	Fulfilled	Fulfilled	Fulfilled	Very good
2	Book 2	Fulfilled	Fulfilled	Not fulfilled	Not fulfilled	Fairly good
3	Book 3	Fulfilled	Fulfilled	Not fulfilled	Fulfilled	Good

3.2. Discussion

3.2.1. Language suitability with the students' development

The findings were the three books had language suitability with students' development in the very good category. The findings showed that the textbook was suitable for the intellectual development of students because it contained language describing concepts in the form of paragraphs with imaginative application and imaginative illustration language. This finding was in line with research conducted by Rofidah *et al.* [28] that textbooks have used the language suitability with the development of students because it is supported by the explanation of concepts and imaginative illustrations. The elaboration of concepts in the form of imaginative paragraphs in this book was related to the intellectual development of students, especially in aged 11-12 years. At this age, students were able to understand long and complex language structures and understand the implied meanings with their imagination [29]. Sumarsono [30] also stated that the level of the intellectual development of fifth-grade students was being able to interpret a concept from the examples of the application of the concepts presented. The illustrations are supporting and complementary o the message being conveyed [31]. Appropriate illustrations become a means to improve students' understanding of a text [32]. Illustrations are also able to provide an overview that makes it easier for students to receive complex material [33].

The three textbooks also meet the indicators of language suitability for socio-emotional development, including aspects of language translation from narrow to broad and problem-solving language. This is in line with research conducted by Fahmi and Saleh [34] who found no problems in textbooks regarding the language suitability related to the students' emotional development. This finding was supported by Muslich [8] that language is said to the level of development of students if it describes the concept of the local environment to the global environment. Textbooks describe the language of problem-solving, one of which is in observing and working together. This was related to the socio-emotional abilities of fifth grade. At this age, the children can solve the problems and work together with their groups to make decisions from the observations [35].

3.2.2. Communicative language

The research findings showed that the communicative language of textbooks was different. There was not a single book among the three thematic textbooks for fifth-grade students that fulfilled the accuracy of the language rules. The three textbooks' language rules were inaccurate due to mistakes in writing punctuation marks, numbers, and word inconsistencies. Purnanto and Mustadi [9] found that the use of punctuation errors and inconsistent words were the main problems in textbooks. Even though proper punctuation is crucial in a textbook. The punctuation marks can help someone in understanding the content of the text. In addition to punctuation, consistent use of words is very necessary for writing textbooks. The inconsistency of a word will confuse the textbook readers [36].

The finding showed that there were differences from previous studies. This study found the discrepancies such as writing numbers in sentences. According to PUEBI [37], numbers that can be expressed in one or two words can be written using letters, however, in all three books, they were written with numbers. Not only the suitability of language rules but also the two books did not meet the straightforwardness in conveying the material. Both books there were not effective, so the material is not straightforward. It is said that because effective sentences were a requirement for straightforward material, the sentences must be simple, not convoluted, and have redundancy [38]. To create effective communication on textbooks, visuals and texts need to be integrated appropriately in textbooks [39]. Language communicativeness is very important for textbooks because in addition to affecting the understanding of students, it also has an influence on the language used by teachers in learning [40].

3.2.3. The language coherence and cohesion

The research findings showed that the three books had different qualities of coherence and cohesion. The three books had coherence and cohesion between chapters, both between sub-themes and lessons. This is in line with research conducted by Wardani [41] which stated that textbooks have fulfilled the coherence and cohesion between chapters. Coherence between chapters is seen from the logical relationship between one chapter and another [8].

However, in the second and third books, disorganization and incoherence between paragraphs were found. This disorganization can be seen from the presentation of paragraphs that were not in order between the paragraphs before and after them. The coherence of a paragraph is characterized by a coherent explanation of information and does not jump [42]. Even though the coherence and cohesion of paragraphs are very important as a condition of a good paragraph. Widjono [38] stated that the requirements for a good paragraph are unity, coherence, completeness, cohesion, and consistency of the viewpoints. In addition, in the third book, there was also disorganization and incoherence between sentences. The sentences in paragraphs were not coherent if adjacent sentences did not show a logical relationship [8].

4. CONCLUSION

The study concluded that: i) The thematic textbooks for fifth-grade heat and transfer published by the Ministry of Education and Culture, Yudhistira and Erlangga had very good language quality in terms of language suitability with the development of students; ii) The thematic textbooks for fifth-grade heat and Transfer published by the Ministry of Education and Culture and Erlangga had fairly good language quality and Yudhistira's publications had poor language quality in terms of communicative language; and iii) The thematic textbooks for fifth-grade heat and transfer published by the Ministry of Education and Culture had very good language quality. Yudhistira's publications had fairly good language quality and Erlangga's book had good language quality in terms of coherence and cohesion of textbooks. Yudhistira's textbook had very prominent errors in terms of communicative language but overall, the study concluded that the quality of textbook language is at a good level. Book authors must have excellent linguistic skills. Use linguistic standards to compile a book, subsequently, the resulting book has good language quality from various aspects.

REFERENCES

- [1] Indonesian Ministry of Education and Culture, *Regulation of the Minister of Education and Culture Number 23 of 2016 Concerning Educational Assessment Standards (in Indonesian)*. Jakarta, 2016.
- [2] Indonesian Ministry of Education and Culture, *Textbooks and Enrichment (in Indonesian)*. Jakarta, 2017.
- [3] B. P. Sitepu, *Textbook writing (in Indonesian)*, 2nd ed. Bandung: Remaja Rosdakarya, 2012.
- [4] G. Agha, N., & Shaikh, "Teachers' Perceptions of Gender Representation in Textbooks: Insights From Sindh, Pakistan," *Journal of Education*, vol. 0, no. 0, pp. 1–10, 2022, doi: <https://doi.org/10.1177/00220574221097596>.
- [5] Prastowo Andi, *Creative guide to create innovative teaching materials (in Indonesian)*. Yogyakarta: Diva Press, 2015.
- [6] G. Castañeda-Garza and G. Valerio-Ureña, "Energy literacy in elementary school textbooks in Mexico," *Environmental Education Research*, vol. 0, no. 0, pp. 1–13, 2022, doi: [10.1080/13504622.2022.2135687](https://doi.org/10.1080/13504622.2022.2135687).
- [7] P. Sinambela, *Education unit level curriculum (in Indonesian)*, vol. 3, no. April. Jakarta: BSNP, 2006.
- [8] M. Muslich, *Text Book Writing: Fundamentals of Understanding, Writing, and Using Textbooks (in Indonesian)*. Jakarta: Ar-Ruzz Media, 2010.
- [9] A. W. Purnanto and A. Mustadi, "Language feasibility analysis in theme 1 textbook class I elementary school curriculum 2013 (in Indonesian)," *Profesi Pendidikan Dasar*, vol. 3, no. 2, p. 101, 2018, doi: [10.23917/ppd.v3i2.2773](https://doi.org/10.23917/ppd.v3i2.2773).
- [10] National Education Department, "Assessment standards for Indonesian language and literature textbooks (in Indonesian)," 2008.
- [11] P. Febriyani, Bagiya, and A. Ratnaningsih, "Analysis of language errors in the thematic book theme 5 my hero grade IV elementary school (in Indonesian)," *Ejournal.Undhari.Ac.Id*, vol. 2, no. 1, pp. 72–78, 2021.
- [12] E. Haulle, E., & Kabelege, "Relevance and Quality of Textbooks Used in Primary Education in Tanzania: A Case of Social Studies Textbooks," *Contemporary Education Dialogue*, vol. 18, no. 1, pp. 12–28, 2021, doi: [10.1177/0973184920962702](https://doi.org/10.1177/0973184920962702).
- [13] N. Afifah, "Analysis of Akidah Akhlak Madrasah Ibtidaiyah Textbooks (in Indonesian)," *Literasi*, vol. 4, no. 2, pp. 199–222, 2013.
- [14] A. W. Purnanto and A. Mustadi, "Analysis of Language Feasibility in Theme 1 Textbook Class I Elementary School Curriculum 2013 (in Indonesian)," *Profesi Pendidikan Dasar*, vol. 3, no. 2, p. 101, 2018, doi: [10.23917/ppd.v3i2.2773](https://doi.org/10.23917/ppd.v3i2.2773).
- [15] M. P. Dewi and T. Taufina, "Analysis of the Suitability of Science Materials for Class IV Elementary School Students' Books Against the 2013 Curriculum Content Standards (in Indonesian)," *School Education Journal Pgsd Fip Unimed*, vol. 10, no. 1, pp. 50–54, 2020, doi: [10.24114/sejgsd.v10i1.18558](https://doi.org/10.24114/sejgsd.v10i1.18558).
- [16] H. Winiarti, L. Noviyanti, and P. G. Yanti, "Analysis of Conformity of Textbooks for Class II Elementary Schools (SD) with the 2013 Curriculum (in Indonesian)," *Spektrum Penelitian Pendidikan Dasar*, vol. 1, no. 1, pp. 8–15, 2020.
- [17] T. Yunianto, "Analysis of Conformity of Natural Science Materials in Class IV Semester 1 Student Books at SD/MI with the 2013 Curriculum (in Indonesian)," *Jurnal Ilmiah "Pendidikan Dasar"*, vol. 8, no. 1, pp. 1–17, 2021.
- [18] W. G. Puspito, A. Sutopo, and A. Desstya, "Analysis of Conformity of Elementary School Thematic Books with the 2013 Curriculum (in Indonesian)," *Jurnal Basicedu*, vol. 6, no. 1, pp. 354–363, 2022.
- [19] R. Irsyada, "Analysis of the Content and Feasibility of Presentation of Electronic School Books (BSE) for Class 2 Elementary School Penjasorkes Subjects (in Indonesian)," *Journal of Physical Education, Health and Sport*, vol. 3, no. 2, pp. 121–126, 2016.
- [20] A. H. Simamora and I. K. Sudarma, "Analysis of 2013 Curriculum Learning Devices in Elementary Schools (in Indonesian)," *Journal of Education Technology*, vol. 1, no. 2, pp. 149–155, 2017.
- [21] Y. Ernawati, "Study of integrated thematic textbooks for class IV to the 2013 curriculum (in Indonesian)," *Jurnal Ilmiah Bina Edukasi*, vol. 11, no. 2, pp. 109–123, 2019, doi: [10.33557/jedukasi.v11i2.223](https://doi.org/10.33557/jedukasi.v11i2.223).
- [22] M. Mohammadi and H. Abdi, "Textbook Evaluation: A Case Study. International Conference on Current Trends in ELT," *Procedia - Social and Behavioral Sciences*, vol. 98, no. 2014, pp. 1148–1155, 2014.
- [23] A. Ulfa, "Analysis of the 2013 curriculum of elementary school grade I students' books on the theme of objects, animals and the

- environment around me (in Indonesian),” *Antimicrobial Agents and Chemotherapy*, vol. 4, no. 12, pp. 7250–7257, 2017, doi: 10.31316/esjurnal.v4i2.171.
- [24] F. D. Karitas, *Heat and its transfer: Thematic Book Integrated Curriculum 2013 (in Indonesian)*. Jakarta: Kementerian Pendidikan dan Kebudayaan, 2017.
- [25] M. J. A. Wini, K., Fransiska, S., & Irene, *Integrated Thematic Heat and Transfer for Class V SD/MI (in Indonesian)*. Jakarta: Erlangga, 2017.
- [26] L. N. Saptorini, Dhiah; Laili, *Heat and Its Transfer The Unified Thematic Textbook (in Indonesian)*. Yogyakarta: Yudhistira, 2017.
- [27] K. Krippendorff, *Content analysis : An introduction to its methodology*. New York: Sage Publication., 2004.
- [28] R. Rofidah, M. Junus, and A. Hakim, “Comparative Analysis of Physics Textbooks for Class XI Senior High School Students Between Electronic School Books (BSE) and Non-BSE Books in View of the Components of Feasibility of Content, Presentation of Teaching Materials, Presentation of Learning, a,” *Jurnal Literasi Pendidikan Fisika*, vol. 1, no. 02, pp. 97–104, 2020, doi: 10.30872/jlpf.v1i2.351.
- [29] S. Mardison, “Language development of primary school/madrasah primary school age children (SD/MI) (in Indonesian),” *Jurnal Tarbiyah Al-Awlad*, vol. 6, no. 02, p. 11, 2016, doi: 10.15548/alawlad.v7i2.432.
- [30] B. Sumarsono, “Stages and Characteristics of Cognitive Development of Elementary School Age Students (in Indonesian),” 2022. <https://www.halopsikolog.com/ciri-ciri-perkembangan-kognitif-peserta-didik-usia-sekolah-dasar/>.
- [31] S. Sidhartani and F. Tales, “Illustrations as a Supporting Aspect of Communication, Case Study: The Role of Illustrations as Nonverbal Language that Supports the Conveyance of Communication in Children’s Fairy Tales (in Indonesian),” *Deiksis*, vol. 2, no. 1, pp. 39–56, 2010, doi: <http://dx.doi.org/10.30998/deiksis.v2i01.393>.
- [32] P. Trahorsch, J. D. Bláha, and V. Chytrý, “Comparative analysis of the quality of visuals in geography textbooks for ISCED 1 and ISCED 2 levels of education,” *Review of International Geographical Education Online*, vol. 9, no. 2, pp. 264–283, 2019, doi: 10.33403/riego.509255.
- [33] M. S. Fayyazi and H. S. Pirloojeh, “A content analysis of the elementary school farsi reading and writing textbooks from frame semantics’ point of view,” *Language Related Research*, vol. 11, no. 4, pp. 211–240, 2020.
- [34] M. Fahmi and D. R. Saleh, “Appropriateness of the linguistic aspects of BSE Indonesian SMP to content standards (in Indonesian),” *Linguista: Jurnal Ilmiah Bahasa, Sastra, dan Pembelajarannya*, vol. 1, no. 2, p. 79, 2017, doi: 10.25273/linguista.v1i2.1976.
- [35] E. Tusyana, R. Trengginas, and . S., “Analysis of social-emotional development achieved elementary age students (in Indonesian),” *Inventa*, vol. 3, no. 1, pp. 18–26, 2019, doi: 10.36456/inventa.3.1.a1804.
- [36] I. R. Fitri and R. K. Wahyuni, “Analysis of the Use of Punctuation Marks in Narrative Texts for Class VII Students of SMPN 2 Kapur IX (in Indonesian),” *Deiksis*, vol. 10, no. 03, p. 274, 2018, doi: 10.30998/deiksis.v10i03.2500.
- [37] R. Hidayat and M. Asyhar, “Inconsistency of rules in the Indonesian language education series book with KBBI and PUEBI (in Indonesian),” *Jurnal Bastrindo*, vol. 1, no. 1, pp. 87–99, 2020, doi: 10.29303/jb.v1i1.20.
- [38] H. Widjono, *Indonesian language (in Indonesian)*. Jakarta: Grasindo, 2012.
- [39] J. Vinisha, K., & Ramadas, “Visual Representations of the Water Cycle in Science Textbooks,” *Contemporary Education Dialogue*, vol. 10, no. 1, pp. 7–36, 2013, doi: 10.1177/0973184912465157.
- [40] L. Carabantes and A. Paran, “‘I Preferred to Take Another Activity From the Textbook’: An Activity–Theoretical Study of Learning to Design Language Teaching Materials,” *The Modern Language Journal*, vol. 0, no. 0, pp. 1–16, 2022, doi: 10.1111/modl.12803.
- [41] O. P. Wardani, “Feasibility Analysis of Content and Language in High School Textbooks ‘Indonesian Language and Academic Self-Expression’ of Senior High School Class X (in Indonesian),” *Jurnal Pendidikan Bahasa Indonesia*, vol. 5, no. 2, p. 75, 2018, doi: 10.30659/j.v5i2.2352.
- [42] S. P. Astuti, “Paragraph Writing Skills for Students of the Faculty of Cultural Sciences, Diponegoro University, Semarang (in Indonesian),” *Nusa: Jurnal Ilmu Bahasa dan Sastra*, vol. 13, no. 4, p. 604, 2018, doi: 10.14710/nusa.13.4.604-613.

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