



Comparative Analysis of Presentation of Set Material in Indonesian and Fijian Mathematics Textbooks

Jesika Dwi Putriani¹, Ely Susanti^{2*}, Cecil Hiltri Martin³

Department of Mathematics Education, Universitas Sriwijaya, Indonesia

*ely_susanti@fkip.unsri.ac.id

Article Info	Abstract
Received May 16, 2025	Textbooks are essential learning tools that significantly influence students' comprehension of mathematical concepts, including the foundational topic of sets. This study aimed to analyze how set materials are presented in Indonesian and Fijian mathematics textbooks, focusing on facts, concepts, principles and errors, cognitive levels, problem-solving, and alignment with the Programme for International Student Assessment (PISA) framework. Using a qualitative descriptive-comparative method, the study examined three textbooks: Indonesia's KTSP (2011), Merdeka Curriculum (2022), and a Fijian mathematics book. Data were collected through document analysis. The findings revealed distinct presentation approaches: KTSP emphasizes symbols and formal definitions; the Merdeka Curriculum uses real-life contexts; and the Fijian book adopts a simple, visual style. Regarding cognitive levels, KTSP questions are mostly C1–C2, Merdeka Curriculum textbook includes C4–C5, while Fiji remains at C1–C3. However, all three lack sufficient alignment with PISA question types. In terms of problem-solving, KTSP tends to be procedural, the Merdeka Curriculum is more reflective, and Fiji lacks problem-solving tasks. These findings highlight the need for textbooks to include more contextual and higher-order thinking problems to support students' mathematical literacy and deeper understanding.
Revised June 23, 2025	
Accepted July 21, 2025	
Keywords	
Comparative Analysis; Mathematics Textbook; Set.	

This is an open access article under the terms of
the Creative Commons Attribution-ShareAlike 4.0 International License



How to Cite:

Putriani, J. D., Susanti, E., & Martin, C. H. (2025). Comparative Analysis of Presentation of Set Material in Indonesian and Fijian Mathematics Textbooks. *Journal of Instructional Mathematics*, 6(1), 58-71.

INTRODUCTION

Mathematics shapes students' logical, critical, and systematic thinking skills (Hayati & Jannah, 2024). Among the various topics in mathematics, set material is one of the basic topics because it is the foundation for understanding advanced concepts such as mathematical logic, relations, functions, and statistics (Fiddiana, 2022). Thus, understanding the concept of sets needs to be built comprehensively and meaningfully from the beginning of learning (Jusniani et al., 2022). In this case, the learning resources used are very influential. One of them is textbooks, which are the primary means of helping students build an understanding of mathematical material, including sets (Rizqi et al., 2021).

However, the facts show that learning set material in schools still faces challenges (Ramiyati & Adha, 2024). Most students have difficulty understanding basic set concepts, such as notation, operations, and applications to story problems (Sitepu et al., 2025). This difficulty is often exacerbated by textbook inconsistencies or deficiencies, such as conceptual errors, unclear principles, or unrepresentative examples of problems (Anggriana et al., 2024). In addition, variations in the quality and approach of mathematics textbooks in circulation require teachers and students to be more selective in choosing the right learning resources (Fendiyanto & Siregar, 2024). Then, the curriculum standards circulating in each country or region also cause differences in the scope and depth of the material taught (Lestari, 2024).

The study of set material is important because this topic is fundamental and conceptual. Mistakes in understanding sets can impact the difficulty of learning advanced concepts (Ismail et al., 2024). In addition, this material also has a strong visual and symbolic dimension (Pranajaya et al., 2020), so this topic is fascinating to study through various learning approaches. By comparing the presentation of set material in textbooks from two countries, we gain insight into differences in curriculum, learning styles, and teaching strategies across countries.

This study examines mathematics textbooks from Indonesia and Fiji. The selection of these textbooks is based on the educational background and performance in mathematics of both countries. Indonesia has participated in the PISA conducted by the Organisation for Economic Co-operation and Development (OECD), with results indicating that Indonesian students' mathematical literacy is still below the OECD average (Sujadi et al., 2022). Meanwhile, Fiji has not yet participated in PISA but takes part in regional assessments such as the Pacific Islands Literacy and Numeracy Assessment (PILNA) (Monty, 2024), which evaluates students' basic literacy and numeracy skills using an approach that shares similarities with PISA principles. Both countries face challenges in improving students' critical thinking and mathematical reasoning skills. Therefore, comparing Indonesian and Fijian mathematics textbooks provides an opportunity to understand how curriculum approaches, concept representations, and question designs are developed in different contexts, as well as the extent to which they support the achievement of 21st-century competencies.

Previous studies that analyzed mathematics textbooks in various materials generally only discussed the evaluation of textbooks from one curriculum or one particular country (Anuniwat & Ningtyas, 2024; Muhtadi et al., 2021), analyzing based on the International Baccalaureate (IB) with Non-IB (Birgili & Saralar-Aras, 2024). Some also discussed the suitability of textbooks with the PISA framework or Bloom's cognitive taxonomy (Suharyono & Rosnawati, 2020). However, no comparative study has explicitly compared the set material between Indonesian and Fijian mathematics textbooks. Therefore, textbook analysis should not only cover the general content, but also specifically examine the accuracy of facts, the clarity and completeness of concepts and principles, including potential presentation errors that may hinder student understanding (Mayangsari et al., 2021). In addition, it is important to review the cognitive level of the questions to determine the extent to which the textbook promotes higher-order thinking skills (Anifarka & Rosnawati, 2023). Considering 21st-century learning challenges,

problem-solving and context-based mathematical literacy, as measured by the PISA framework, are becoming increasingly relevant (Habibi & Suparman, 2020).

Therefore, the aim of this study is to analyze and compare the presentation of set theory material in Indonesian and Fijian mathematics textbooks based on aspects of facts, concepts, principles and their errors, cognitive levels of questions, problem-solving tasks, and questions aligned with the PISA framework. Through this analysis, it is expected to provide valuable input for textbook authors, teachers, and curriculum developers in improving the presentation of mathematics content to be more accurate, contextual, and capable of fostering student competencies relevant to the demands of the 21st century.

RESEARCH METHODS

This study is a qualitative research using a descriptive-comparative method aimed at analyzing and comparing the presentation of set theory material in three mathematics textbooks. The focus of the study is based on several aspects such as factual content, concepts, principles, cognitive level of questions, problem-solving tasks, and alignment with the PISA framework. The analysis of facts, concepts, and principles aims to assess the accuracy and clarity of content presentation, while identifying errors helps uncover potential misconceptions. Cognitive level analysis is conducted to determine how far the questions promote higher-order thinking skills. Furthermore, the PISA framework is used to evaluate the relevance of the questions to real-world contexts, and the analysis of problem-solving questions examines the extent to which the textbooks develop students' critical thinking and problem-solving strategies. This model is used to compare the depth and quality of the presentation of set theory material in each textbook.

The objects of this study are Indonesian mathematics textbooks from the School-Based Curriculum (KTSP, 2011), the Merdeka Curriculum (2022), and the Fijian textbook Mathematics Year 7 (2015). The research procedure began by selecting textbooks considered relevant to the study, followed by document analysis to assess each textbook according to the research focus. Data were then collected through comparative document analysis and analyzed qualitatively for the aspects of facts, concepts, principles, problem-solving tasks, and PISA alignment. The cognitive level of questions was analyzed using descriptive quantitative methods. This approach allowed the researcher to identify differences and similarities in the way set theory material is presented in the three textbooks from Indonesia and Fiji. These textbooks were selected as theoretical samples because they represent the development of the Indonesian national curriculum and provide a contextual comparison with an international education system (Fiji), enabling an in-depth and focused analysis of set theory content. Information about the three textbooks is presented in Table 1.

Table 1. Mathematics textbook identity

Country	Book	Curriculum
Indonesia	Dris and Tasari (2011)	School Level Curriculum (KTSP)
Indonesia	Tohir et al. (2022)	Merdeka Curriculum
Fiji	Mebaniyabula et al. (2015)	Curriculum Development Unit, Ministry of Education, Fiji

RESULTS AND DISCUSSION

The findings from the textbook analysis are presented, beginning with a comparison of how each book conveys facts, concepts, and principles related to set theory.

Facts, Concepts, and Principles

The first aspect presented is a comparison of facts, concepts, and principles from the KTSP book, the Merdeka Curriculum Book, and the Fiji Book presented in Table 2.

Table 2. Facts, concepts, and principles of the three books

Aspect	KTSP Textbook	Merdeka Curriculum Textbook	Fiji Textbook
Fact	Facts are presented explicitly, symbolically, structured like (such as $\in, \notin, n(A), \{ \}, //, \cup, \cap, \subset, S, A'$ concrete examples, set terms, Venn diagrams.	Systematic facts, narratives, symbols such as $A, B, n(A), n(B)$, and $\{ \}$, using story illustrations and everyday experiences.	Simple, direct, visual facts, symbols such as $A, n(A), \cup, \in, \notin, \{0\}$ and set terms, and concrete examples.
Concepts	Related definitions include "set as a collection of objects that can be distinguished or clearly defined" and relationships between sets, subsets, intersections, and unions.	Related definitions include "set as a collection of certain objects that can be identified," the concept of cardinality, and the universal set.	Related definitions of set as "a collection of objects", member as "member of set", equal set, union, intersection, complement, and cardinality.
Principle	Principles related to the properties of subsets are mutually exclusive, equal, equivalent, complement, and difference.	Principles related to cardinality include the presentation of sets such as descriptions, enumerations, and notations for forming sets, subsets, and universes.	Principles related to equal sets, union, intersection, complement, universal, disjoint, and null sets.

The three books present facts in the context of their respective curricula. The KTSP curriculum textbook emphasizes symbolic precision and numerical facts, the Merdeka curriculum textbook packages facts in students' daily lives, and the Fiji textbook conveys facts directly and simply and is very strong in visual and symbolic aspects.

All three books explain the concept of sets in their way. The KTSP curriculum book emphasizes the basis and local context. The Merdeka curriculum book encourages exploration and integration with relations and functions. The Fiji book presents a structured and symbolic mathematical approach.

The three books then present the principles of sets with different approaches. The KTSP curriculum book focuses on facts and basic properties such as membership and summation operations. The Merdeka curriculum book develops the principles of sets towards relations and functions with the concepts of domains, codomains, and ordered pairs. The Fiji book emphasizes axioms and formal properties such as equality, complements, and universal sets.

In its presentation, there are factual errors in the Indonesian Merdeka curriculum book and the Fiji book, as shown in Figure 1.

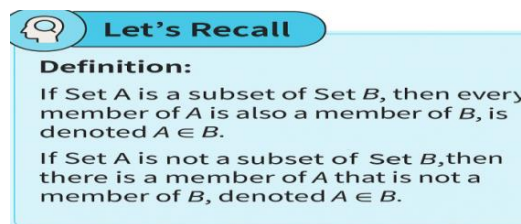


Figure 1. Factual errors in the independent curriculum textbook

The image above is on page 147, the factual error written based on the image is a symbol error $\in$ (membership/element). In this case, it should state that A is a subset of B , which is mathematically written $A \subseteq B$ and " A is not a subset of B " is $A \not\subseteq B$. The symbol is only used to state that an element is an object in a set, while a subset is a set consisting of elements of another set. So the correct sentence is "If set A is a subset of B , then each member of A is also a member of B , and is written $A \subseteq B$ ". Furthermore, "If set A is not a subset of B , then there is a member of A that is not a member of B , written in the notation $A \not\subseteq B$ ".

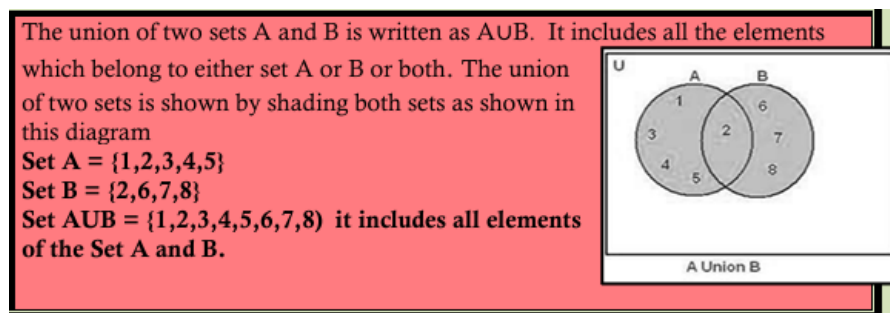


Figure 2. Fiji book fact error

Figure 2 is on page 21 contains a symbolic error in " $A \cup B = \{1, 2, 3, 4, 5, 6, 7, 8\}$ ". The error was closing the brackets using regular brackets instead of curly braces. Sets must be written in curly brackets $\{ \}$. This error can make students misunderstand the difference between set notation and ordered pairs. So the writing can be corrected to $A \cup B = \{1, 2, 3, 4, 5, 6, 7, 8\}$.

In addition, the Merdeka curriculum book and the Fiji book contain conceptual errors and principle errors, which are explained in Figure 3.

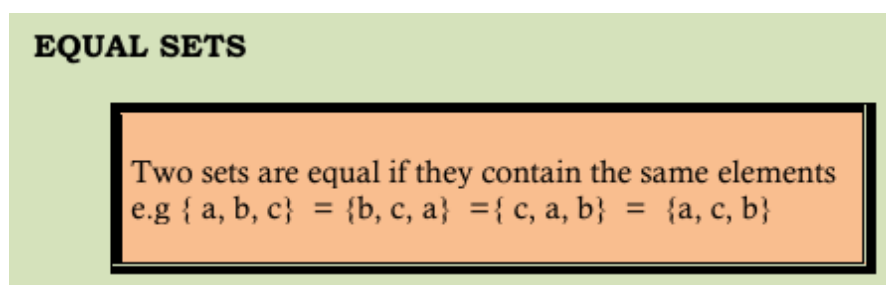


Figure 3. Fiji book concept error

The image above is on page 20, where the sentence error is due to the lack of emphasis that what is important is the same element, not the order. This can make students think that the order must be considered. Therefore, by adding an explicit explanation such as "Two sets are said to be the same if they have exactly the same elements, regardless of the order of the elements". The order of the elements does not affect the similarity of the sets.

2. Given the set $B = \{x \mid -2 < x < 3, \text{ and } x \in B, \text{ and}$

Figure 4. Errors in the principles of the merdeka curriculum book

The image above is on page 146 for the Let's Communicate section question number 2, the error is in the writing $x \in B$. Because set B is being defined, it cannot be used as a membership requirement. So the correct revision is $B = \{x \mid -2 < x < 3, \text{ dan } x \in \text{Bilangan Bulat}\}$, or define the universal set explicitly.

Questions Based on Cognitive Level

In this section, a descriptive quantitative analysis is employed. This method is conducted by calculating the percentage distribution of questions across each cognitive level (C1 to C6) for each source (KTSP Curriculum, Merdeka Curriculum, and the Fiji textbook), and then presenting the results in the form of tables and descriptive explanations. The following is a detailed explanation.

Table 3. Book analysis based on cognitive level

Cognitive Level	KTSP Curriculum	Merdeka Curriculum	Fiji Book
C1	39.63%	21.43%	30.56%
C2	18.52%	21.43%	30.56%
C3	16.67%	14.29%	16.67%
C4	16.30%	14.29%	11.11%
C5	6.67%	14.29%	11.11%
C6	2.22%	14.29%	0

The results of the analysis of the questions in the three mathematics textbooks show a significant difference in encouraging the development of students'

abilities. In the KTSP curriculum textbook, the questions presented are still dominated by low cognitive levels, namely C1 (Remembering) at 39.63%, C2 (Remembering) at 18.52%, and C3 (Applying) at 16.67%. On the other hand, questions that measure high-level thinking skills, such as C4 (Analyzing), C5 (Evaluating), and C6 (Creating), are still minimal, especially at level C6, which only reaches 2.22%. This shows that this book does not provide much space for students to develop critical and creative thinking skills.

This differs from the Merdeka Curriculum textbook, which shows more balanced questions at all cognitive levels. Each category of questions from C1 to C6 gets a relatively even proportion, between 14.29% and 21.43%. This aligns with the objectives of the independent curriculum, which aims to equip students with high-level thinking skills and encourage their creativity in solving problems. Meanwhile, the Fiji textbook looks quite balanced in presenting questions at levels C1 and C2, each at 30.56%. C3 is 16.67%, and C4 and C5 have the same percentage, 11.11%. However, this book does not yet contain questions at level C6, so students' opportunities to practice innovation and design new solutions are still limited.

Overall, the KTSP Curriculum textbook focuses more on mastering basic knowledge, while the Merdeka Curriculum textbook has been directed at strengthening critical and creative thinking skills more evenly. The Fiji textbook is between the two, with a more balanced emphasis on fundamental questions, but still does not provide enough space for innovative questions. Therefore, authors and developers of mathematics textbooks need to pay more attention to the balance of questions based on cognitive levels. The presentation of diverse questions not only helps students understand concepts, but also trains them to think analytically, evaluate information, and create new solutions, skills that are very much needed in the 21st-century learning era.

Questions Based on the PISA Framework

Here is an explanation of the PISA framework in relation to the topic of sets as presented in the KTSP, the Merdeka Curriculum, and the Fiji textbook.

Table 4. Questions approaching the PISA framework

Textbook	Question	Information	Lack
KTSP Textbook	Of the 48 students, 31 are noted to like athletics, 28 are noted to like badminton, 29 are noted to like chess, 18 are noted to like athletics and chess, 15 are noted to like athletics and badminton, 17 are noted to like badminton and chess, and 10 are noted to like all three. Calculate the number of students who are noted to like chess but not badminton.	Content: Quantity Context: Personal Process Competence: Employing	The real context is not strong enough to fit the PISA framework, and the questions do not involve the formulation and interpretation processes that are an important part of PISA mathematical literacy.

Table 4. (*continue*)

Merdeka Curriculum Textbook	Of the 50 8th-grade Merdeka Belajar Middle School students, ten like soccer, badminton, and basketball. Students who do not like these three games are one-third of those who like basketball, and more than 15 students like soccer. In your opinion, of the three sports, which one is the most popular? Write down the steps to get the answer.	Content: Uncertainty and Data Context: Personal Process Competence: Interpreting	Lack of real context, insufficient information to build clear mathematical models, and does not encourage thinking, such as formulating and employing.
Fiji Textbook	Use the Venn diagram to answer the questions: a) How many students like tennis or swimming? b) How many students do not like tennis? c) How many students do not like either tennis or swimming? d) How many students like swimming? e) How many students do not like swimming? f) How many students like tennis? g) How many students like both tennis and swimming? h) How many students only like tennis? i) How many students only like swimming? h) How many students do not like both tennis and swimming?	Content: Uncertainty and Data Context: Societal Process Competencies: Employment.	Minimal real context does not involve formulating and interpreting according to PISA standards.

Overall, the three KTSP curriculum books, the Merdeka curriculum, and the Fiji book do not fully reflect the approach used in the PISA framework. However, some questions begin to link mathematical concepts to everyday life, but the number is still minimal. Most questions still focus on procedural and symbolic things, without involving students in deeper thinking processes such as formulating problems from real contexts or interpreting mathematical results in everyday situations. In these three books, the questions only go as far as the employing stage, namely using mathematical concepts or procedures that have been taught. So, even though there are questions about PISA, the approach is still not visible.

Problem Solving Questions

Table 5 presents the problem-solving questions related to the set material found in the KTSP, Merdeka Curriculum, and the Fiji book.

Table 5. Problem solving questions

Textbook	Question	Information
KTSP	Of the 80 music fan respondents, it is known that 40 people like pop music, 40 people like classical music, and 40 people like jazz music. 20 people like pop and classical music, 26 people like pop and jazz music, and 22 people like classical and jazz music. If 16 people do not like all three, count the number of people who like all three.	Students must understand the information given, identify what is being asked, choose a solution strategy (using the principle of set intersection), perform calculations, and evaluate the results.
	Of the 60 homemakers, 40 were fond of collecting magazines, 35 of collecting antiques, and 17 of collecting both magazines and antiques. Calculate the number of mothers fond of collecting magazines but not fond of collecting antiques.	Students must understand the data given, identify relationships between sets (magazines and antiques), choose a set operation strategy (subtraction to find intersection), perform calculations, and evaluate results.
	A study was conducted on 280 mothers on three soap products, namely soap A, soap B, and soap C. 158 people used soap A, 100 people only used soap A and 23 people who used all three products, 15 people used soap A and soap C. 40 people used soap B and soap C and 47 people only used soap B. a. Of the three products, which one is most widely used by mothers? b. How many people use soap C only? How many people use two products? d. How many people use only one product?	Students must understand the available information, identify what is being asked, choose a solution strategy (using the principle of sets and Venn diagrams), perform calculations, and evaluate the final results.
Merdeka Curriculum	Of the 50 8th-grade Merdeka Belajar Middle School students, ten like soccer, badminton, and basketball. Students who do not like these three games are one-third of those who like basketball, and more than 15 students like soccer. In your opinion, of the three sports, which one is the most popular? Write down the steps to get the answer.	Students must understand the information provided, plan a strategy (using the principles of sets and equations), perform calculations, and evaluate the final results.

Table 5. (*continued*)

If set $A = \{2, 4, 6, 8\}$, then at least one universe set must be an even number. What about you? Find as many as three possible universe sets for the set A.	Students must understand the information given, plan how to choose set A, carry out the plan by creating several examples of the universal set, and evaluate the final results.
--	---

The questions on the set material in the KTSP and Merdeka Curriculum books have the same goal, which is to train students' ability to solve problems. However, the way they are presented is different. The KTSP book focuses more on calculating exercises, so students are invited to find answers directly from complete data. This helps students get used to definite steps and systematic ways of thinking. On the other hand, the Merdeka Curriculum Book encourages students to think more broadly. The questions are more open and challenging, so students must analyze the information. Create their strategies and draw conclusions based on their logic. However, the questions in the Fuji book cannot yet be categorized as problem-solving questions. So, although both books use different ways of presenting problem-solving questions, they are all considered unique because they can form different skills, such as calculating, critical thinking, and analyzing visuals, in solving problems in the questions.

Based on the results of the book analysis of the Indonesian KTSP textbook, the Merdeka curriculum, and the Fiji textbook, the three books have their own way of presenting the set material. In presenting facts, concepts, and principles, the KTSP book focuses on basic concepts and symbols, while the Merdeka Curriculum textbook relates the material to students' daily lives. On the other hand, the Fiji book stands out in its visualization and coherent delivery of material. Even so, errors in facts, concepts, and principles still appear, such as incorrect writing of symbols or a lack of concepts presented. In line with (Hidayat & Usodo, 2023) textbook factual errors include a lack of mathematical notation, inaccuracy in defining concepts, and incomplete illustrations in supporting conceptual understanding of facts. Without this accuracy, the learning process can become superficial and confusing, especially for students who are encountering the concept of sets for the first time.

Then, if viewed based on cognitive level, most questions are still at level C1-C3. For example, questions that merely ask students to list the elements of a set, determine subsets, or perform set operations mechanically. Questions inviting students to think more deeply, such as C4-C6, are rarely presented in the three books. Although in the Merdeka Curriculum textbook, questions at the C4-C6 levels are more evenly distributed and slightly more varied, such as those involving exploration or reflection on set logic, but based on the percentage of only 11.11%, in general, there are still not many questions that challenge students' critical thinking skills. This indicates that the potential of textbooks as a medium to foster higher-order thinking skills (HOTS) has not been fully optimized. In line with Wahyuni et al. (2023) who stated that the majority of mathematics textbooks have not reached the stage of cognitive level in Bloom's taxonomy which can lead

students to develop high-level thinking skills (HOTS) such as questions at level C4-C6.

From the perspective of the PISA framework, most of the questions in the three textbooks also do not yet meet the criteria for global mathematical literacy. The questions remain procedural and based on direct data, without encouraging students to model real-life situations, make assumptions, or engage in deeper contextual interpretation. According to Dewi et al. (2024), the number of PISA questions in mathematics textbooks is still limited and uneven. As emphasized by (Cahya, 2021) textbooks as learning resources should not only present procedural questions but must also present questions that can encourage students to think at a high level, critically, and be able to solve problems based on everyday life.

After that, the problem-solving questions The differences in approach are clearly visible. The KTSP textbook still employs a procedural approach that tends to be one-way and closed-ended. The Merdeka Curriculum textbook is slightly more open, offering exploratory activities that can be seen as an initial step toward a problem-solving approach. The Fiji textbook, although visually appealing, has yet to present truly complex problem-solving challenges. Only a few questions encourage students to construct their own problem situations or discover multiple solutions. Similar research by Wijaya et al. (2024) stated that of the three books studied, only one contained problem-solving questions, while the other two did not present problem-solving questions. Thus, the three textbooks that have been analyzed have their strengths, but it is more ideal when these three books can create a more complete learning, not only presenting formulas, but also ways of thinking and solving problems as a whole.

The implication is that textbooks should be developed not only with a focus on content knowledge but also with careful attention to pedagogical approaches and mathematical literacy (Azriana & Rosli, 2021). Ideally, the presentation of material should be accompanied by reflective activities that encourage students to draw their own conclusions, open-ended questions that allow for multiple solutions, context-based approaches both locally and globally, visual elements that are not only attractive but also clarify concepts, and the application of critical and creative thinking through C4–C6 level questions (Raditya & Saputra, 2022). Therefore, while each of the three analyzed textbooks has its own strengths, it would be more ideal if these textbooks could together foster a more comprehensive learning experience not only presenting formulas but also nurturing ways of thinking and solving problems holistically (Utami et al., 2023).

CONCLUSION

Based on a comparative analysis of the presentation of set material in mathematics textbooks, the three textbooks present facts, concepts, and principles of sets in different ways. The KTSP textbook emphasizes the clarity of symbols and formal structures, while the Merdeka curriculum textbook relates it to the context of everyday life. In contrast, the Fiji textbook presents it more simply and visually. In its presentation, there are errors in facts, concepts, and principles in the Merdeka and Fiji curriculum textbooks, namely errors in the interpretation of definitions and the use of symbols. Regarding questions, the KTSP textbook is dominant at the C1-C2 cognitive level, while the Merdeka curriculum begins to

push towards the C4-C5 level, and the Fiji textbook tends towards the C1-C3 level. Then, in the context of the PISA framework, the questions in the three books generally do not fully reflect mathematical literacy that emphasizes real contexts and modeling. Some questions begin to move towards a contextual approach, but are still abstract and focused on procedures, so they do not equip students to face contextual problems. Then, the problem-solving questions in the three books show a variety of approaches. The KTSP textbook emphasizes procedural accuracy, the Merdeka curriculum textbook encourages analytical and reflective thinking, while the Fiji book develops visual analysis skills through diagrammatic representation. All three contribute to forming various problem-solving skills, from systematic logic to contextual understanding. Overall, all three textbooks have their strengths, but it is more ideal when these three books can create a more complete learning, not only presenting formulas, but also how to think and solve problems comprehensively.

REFERENCES

- Anggriana, E., Karim, A., & Rahmawati, E. Y. (2024). Analisis Soal Cerita pada Buku Matematika Siswa Kelas VII Jenjang SMP Kurikulum 2013 Berdasarkan Taksonomi Bloom. *Algoritma: Jurnal Matematika, Ilmu Pengetahuan Alam, Kebumihan Dan Angkasa*, 2(6), 154–163. <https://doi.org/10.62383/algoritma.v2i6.298>
- Anifarka, A., & Rosnawati, R. (2023). Analisis Buku Teks Matematika SMP Berdasarkan Tingkat Kognitif pada Taksonomi Bloom Revisi dan Numerasi pada AKM. *Jurnal Cendekia: Jurnal Pendidikan Matematika*, 7(3), 2151–2166. <https://doi.org/10.31004/cendekia.v7i3.1701>
- Anuniwat, D., & Ningtyas, Y. D. W. K. (2024). Intended Statistics Curriculum at the Elementary Level: Thailand vs. Indonesia. *Journal of Instructional Mathematics*, 5(2), 108–120. <https://doi.org/10.37640/jim.v5i2.2131>
- Azriana, A., & Rosli, R. (2021). Analisis Aras Kognitif Bagi Soalan dalam Buku Teks Matematik Tahun 4 KSSR Semakan. *Malaysian Journal of Social Sciences and Humanities (MJSSH)*, 6(3), 146–158. <https://doi.org/10.47405/mjssh.v6i3.712>
- Birgili, B., & Saralar-Aras, İ. (2024). Comparative Analysis of Data Analysis and Probability Topics between IB and Non-IB Mathematics Textbooks. *Journal of Instructional Mathematics*, 5(1), 45–66. <https://doi.org/10.37640/jim.v5i1.1970>
- Cahya, D. (2021). Kajian Soal-soal dalam Buku Teks Matematika Kelas V Berdasarkan Framework PISA. *Jurnal Pembelajaran Dan Pengajaran Pendidikan Dasar*, 5(1), 134–145. <https://doi.org/10.33369/dikdas.v5i1.15214>
- Daris, J., & Tasari, T. (2011). *Matematika untuk SMP dan MTs Kelas VII Jilid 1*. Pusat Kurikulum dan Perbukuan, Kementerian Pendidikan Nasional.
- Dewi, A. P., Yani, A., Fadhilah, N., & Meldi, N. F. (2024). Analisis Buku Teks Matematika Kurikulum Merdeka Berdasarkan Aspek Literasi Matematika PISA. *J-PiMat: Jurnal Pendidikan Matematika*, 6(2), 1531–1540. <https://doi.org/10.31932/j-pimat.v6i2.3906>
- Fendiyanto, P., & Siregar, M. A. (2024). Analisis Kelayakan Materi pada Buku

- Teks Matematika Kurikulum Merdeka SMA Kelas XI Berdasarkan Kriteria Bell. *Jurnal Cendekia: Jurnal Pendidikan Matematika*, 8(2), 1398–1408. <https://doi.org/10.31004/cendekia.v8i2.3357>
- Fiddiana, D. (2022). Improving concepts understanding affected teaching materials used in class VII collection materials. *Daya Matematis: Jurnal Inovasi Pendidikan Matematika*, 10(1), 60–63. <https://doi.org/10.26858/jdm.v10i1.22000>
- Habibi, H., & Suparman, S. (2020). Literasi Matematika dalam Menyambut PISA 2021 Berdasarkan Kecakapan Abad 21. *JKPM (Jurnal Kajian Pendidikan Matematika)*, 6(1), 57–64. <https://doi.org/10.30998/jkpm.v6i1.8177>
- Hayati, M., & Jannah, M. (2024). Pentingnya kemampuan literasi matematika dalam pembelajaran matematika. *Griya Journal of Mathematics Education and Application*, 4(1), 40–54. <https://doi.org/10.29303/griya.v4i1.416>
- Hidayat, R., & Usodo, B. (2023). Analisis Buku Teks Matematika SMP/MTs Berdasarkan Objek Kajian Matematika Materi Aritmetika Sosial. *JNPM (Jurnal Nasional Pendidikan Matematika)*, 7(1), 89–105. <https://doi.org/10.33603/jnpm.v7i1.7698>
- Ismail, I., Asmah, S. N., & Nurdiana, R. (2024). Analisis Kesulitan Siswa dalam Menyelesaikan Soal Himpunan di Kelas VII MTs Negeri 3 Mempawah. *ARMADA: Jurnal Penelitian Multidisiplin*, 2(4), 282–294. <https://doi.org/10.55681/armada.v2i4.1293>
- Jusniani, N., Septia, P., & Palwa, N. (2022). Penerapan model pembelajaran kooperatif tipe Numbered Head Together (NHT) untuk meningkatkan pemahaman konsep matematis pada materi himpunan. *Sigma Didaktika: Jurnal Pendidikan Matematika*, 9(2), 96–108. <https://doi.org/10.17509/sigmadidaktika.v9i2.53645>
- Lestari, D. E. (2024). Studi Komparasi Pelaksanaan Pembelajaran Matematika Pada Kurikulum Merdeka dengan Kurikulum Jepang. *Jurnal Ilmiah Profesi Pendidikan*, 9(1), 40–46. <https://doi.org/10.29303/jipp.v9i1.1830>
- Mayangsari, A. D., Labulan, P. M., & Rusdiana, R. (2021). Analisis Kesalahan Buku Teks Matematika Kelas XI SMA/MA Kurikulum 2013. *Jurnal Magister Pendidikan Matematika (JUMADIKA)*, 3(2), 79–84. <https://doi.org/10.30598/jumadikavol3iss2year2021page79-84>
- Mebaniyaubula, J., Rura, J., Kaur, A., Bolabola, A., Soqeta, R. M., Kuricava, M., Valesu, S., Kurisaqila, V., Nute, J., Molaivuna, A., & Kotoisuva, E. (2015). *Mathematics Year 7 (Revised Version 2015, © 2014)*. Ministry of Education.
- Monty, A. (2024). *Foundational literacy and numeracy: Using learning assessment data in the Asia-Pacific region*. https://research.acer.edu.au/literacy_numeracy_reviews/7
- Muhtadi, D., Junaedi, I., & Mulyono, M. (2021). Studi komparatif kurikulum matematika sekolah menengah Indonesia dan Turki. *Journal of Authentic Research on Mathematics Education*, 3(2), 126–133.
- Pranajaya, D., Nurhayati, N., & Prihatingtyas, N. C. (2020). Analisis Kemampuan Pemahaman Konsep Matematis Ditinjau Dari Minat Belajar Siswa Pada Materi Himpunan Kelas VII SMP Negeri 8 Singkawang. *Journal of Educational Review and Research*, 3(2), 86–98. <https://doi.org/10.26737/jerr.v3i2.2147>
- Raditya, A., & Saputra, N. N. (2022). Question analysis in indonesians' new

- curriculum secondary mathematics textbook. *Desimal: Jurnal Matematika*, 5(3), 353–362. <https://doi.org/10.24042/djm.v5i3.14590>
- Ramiyati, D., & Adha, H. (2024). Analisis kesulitan siswa dalam menyelesaikan soal cerita tentang himpunan. *Relevan: Jurnal Pendidikan Matematika*, 4(6), 1–8.
- Rizqi, M. M., Wijayanti, D., & Basir, M. A. (2021). Analisis Buku teks matematika materi himpunan menggunakan model prakseologi. *Delta: Jurnal Ilmiah Pendidikan Matematika*, 9(1), 57–76. <https://doi.org/10.31941/delta.v9i1.1226>
- Sitepu, Z. A. R. B., Mahyuni, Panggabean, E. M., & Harahap, T. H. (2025). Desain Lintas Belajar Menggunakan Model Pembelajaran Problem Based Learning Pada Materi Himpunan. *IHSAN: Jurnal Pendidikan Islam*, 3(1), 317–328. <https://doi.org/10.61104/ihsan.v3i1.766>
- Suharyono, E., & Rosnawati, R. (2020). Analisis Buku Teks Pelajaran Matematika SMP ditinjau dari Literasi Matematika. *Mosharafa: Jurnal Pendidikan Matematika*, 9(3), 451–462. <https://doi.org/10.31980/mosharafa.v9i3.819>
- Sujadi, I., Budiyo, B., Kurniawati, I., Wulandari, A. N., Andriatna, R., Puteri, H. A., & Nurmawati, A. (2022). Kesulitan Siswa Sekolah Menengah Pertama dalam Menyelesaikan Soal Matematika PISA-Like. *Edukasi: Jurnal Pendidikan*, 20(2), 315–328. <https://doi.org/10.31571/edukasi.v20i2.4781>
- Tohir, M., As'ari, A. R., Anam, A. C., & Taufiq, I. (2022). *Matematika SMP/MTs Kelas VIII*. Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi.
- Utami, N. S., Prabawanto, S., & Dahlan, J. A. (2023). An analysis of mathematics textbook of Indonesian curriculum based on functional thinking framework. *JRAMathEdu (Journal of Research and Advances in Mathematics Education)*, 8(4), 199–212. <https://doi.org/10.23917/jramathedu.v8i4.1928>
- Wahyuni, I., Nurisma, A., & Mardiyah, R. (2023). Analisis Soal Penalaran Proposisional Pada Buku Teks Matematika Siswa Kelas VII Berdasarkan Taksonomi Bloom. *Jurnal Pembelajaran Dan Matematika Sigma (JPMS)*, 9(2), 233–238. <https://doi.org/10.36987/jpms.v9i2.4419>
- Wijaya, A. P., Hiltrimartin, C., & Susanti, E. (2024). Comparative Analysis of Textbooks in Presenting Mathematical Objects and Problem Solving on Matrix Topics. *Lentera Sriwijaya: Jurnal Ilmiah Pendidikan Matematika*, 6(1), 12–27. <https://doi.org/10.36706/jls.v6i1.8>