Volume 9 Nomor 1 (2026)
ISSN : 2615-0891 (Media Online)

Reading Comprehension Questioning Pattern Used by the Author of Elementary Students' Workbook

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Abstract

Reading comprehension is a fundamental skill that significantly influences students academic success across all subjects, particularly in elementary school. The questioning patterns employed in elementary students' workbooks significantly influence reading comprehension skills by guiding learners through varying levels of cognitive engagement. This qualitative study aimed to analyze the types and patterns of questions in elementary workbooks and explore their alignment with students' cognitive development stages. Employing a case study approach, the research involved document analysis of 100 questions from workbooks for grades 3, 4, and 5, categorized into factual, inferential, and open ended types, alongside semi-structured interviews with three students (one per grade) to capture preferences and experiences. The results revealed a predominance of factual questions (50%), followed by inferential (30%) and open ended (20%), with grade-specific distributions: Grade 3 (65% factual, 25% inferential, 10% open ended), Grade 4 (50% factual, 35% inferential, 15% open ended), and Grade 5 (35% factual, 35% inferential, 30% open ended). Student preferences aligned with cognitive stages, with younger students favoring factual questions and older ones preferring inferential and open ended types. In conclusion, while workbooks provide foundational comprehension practice, the imbalance toward factual questions may limit higher order thinking development. The study contributes to improving the design of reading materials aligned with students' cognitive development, recommending a more balanced distribution of question types to foster progressive cognitive growth in elementary education.

Keywords: Reading Comprehension; Questioning Pattern; Workbook; Elementary Students; Qualitative Study

Abstrak

Pemahaman membaca merupakan keterampilan dasar yang sangat berpengaruh terhadap keberhasilan akademik siswa di semua mata pelajaran, khususnya di sekolah dasar. Polanya pertanyaan yang digunakan dalam buku latihan siswa sekolah dasar secara signifikan mempengaruhi kemampuan pemahaman membaca dengan membimbing siswa melalui berbagai tingkat keterlibatan kognitif. Studi kualitatif ini bertujuan untuk menganalisis jenis dan pola pertanyaan dalam buku latihan sekolah dasar serta mengeksplorasi kesesuaiannya dengan tahap perkembangan kognitif siswa. Menggunakan pendekatan studi kasus, penelitian ini melibatkan analisis dokumen terhadap 100 pertanyaan dari buku latihan untuk kelas 3, 4, dan 5, yang dikategorikan menjadi jenis faktual, inferensial, dan terbuka, disertai dengan wawancara semi-terstruktur dengan tiga siswa (satu per kelas) untuk menangkap preferensi dan pengalaman mereka. Hasil penelitian menunjukkan dominasi pertanyaan faktual (50%), diikuti oleh pertanyaan inferensial (30%) dan pertanyaan terbuka (20%), dengan distribusi berdasarkan tingkat kelas: Kelas 3 (65% faktual, 25% inferensial, 10%

terbuka), Kelas 4 (50% faktual, 35% inferensial, 15% terbuka), dan Kelas 5 (35% faktual, 35% inferensial, 30% terbuka). Preferensi siswa sejalan dengan tahap kognitif, dengan siswa yang lebih muda lebih menyukai pertanyaan faktual dan siswa yang lebih tua lebih memilih pertanyaan inferensial dan terbuka. Kesimpulannya, meskipun buku latihan menyediakan latihan pemahaman dasar, ketidakseimbangan menuju pertanyaan faktual dapat membatasi perkembangan berpikir tingkat tinggi. Studi ini berkontribusi pada perbaikan desain bahan bacaan yang sesuai dengan perkembangan kognitif siswa, dengan merekomendasikan distribusi yang lebih seimbang antara jenis pertanyaan untuk mendorong pertumbuhan kognitif progresif dalam pendidikan dasar.

Kata Kunci: ***Pemahaman Membaca; Pola Pertanyaan; Buku Kerja; Siswa Sekolah Dasar; Studi Kualitatif***

Introduction

Reading comprehension question patterns are systematic strategies used by workbook authors to facilitate text comprehension (Ramsa & Rawian, 2021). Reading is one of the most important activities carried out by humans that can improve students reading and learning achievements (Cremin & Scholes, 2024). In the current educational landscape, elementary students often face challenges in reading comprehension due to the increasing complexity of the texts and the need for critical thinking skills, exacerbated by varying levels of digital literacy and diverse learning environments Literacy is a critical component in students' academic success and future (Mondesir & Griffin, 2020). Reading comprehension is the process of simultaneously constructing and extracting meaning through interaction and engagement with written text (Butterfuss et al., 2020).

Questioning patterns refer to the systematic and recurring structures or sequences of questions designed by authors to guide learners through progressively complex cognitive processes, encompassing the type, order, frequency, and cognitive level of questions presented in instructional materials (Chin, 2023) and (Tienken et al., 2023) .

The Importance of this research lies in its potential to bridge this gap by providing evidence-based insights into effective questioning strategies that align with development stages, ultimately fostering better academic outcomes and lifealong learning habits (Akintola et al., 2024). To justify the state of the art, recent studies emphasize the role of diverse question types in enhancing engagement (Kraus et al., 2021). The success of a reading comprehension activity depends on a good match between the reader's abilities, the difficulty level of the text, and the definition of the task (Snow, 2022). Effective questioning strategies have been shown to enhance reading comprehension and student engagement (Masduki, 2022). Student workbooks are often used to support reading instruction by providing structured exercises and questions. student workbooks as reading tools in education. In the context of this curriculum transformation, workbooks serve as essential educational tools (Ekalia et al., 2025). Workbooks can improve language skills. The effectiveness of workbooks in improving language skills (Ekalia et al., 2025) . The types and patterns of questions used in these workbooks can significantly influence how students engage with the material and develop comprehension skills (Agus Supriyadi et al., 2023). A student workbook is a structured, supplementary educational resource containing exercises, activities, and questions designed to reinforce classroom instruction, provide independent practice opportunities, and assess comprehension of specific learning objectives

There is noteable gap in analyzing the design of student workbooks themselves, which are crucial tools for independent learning and reinforcement(Utami et al., 2020). This analysis is particulary important because workbooks serve as primary resourses for

practicing comprehension skills outside formal instruction, yet their question pattern may not fully address the cognitive needs of elementary students (Utami et al., 2020). Given the importance of aligning workbook content with students cognitive development (Muzaki, 2024), it is crucial to design questions that are both accessible and stimulating. Cognitive development stages, as conceptualized by Piaget, are qualitatively distinct periods of intellectual growth characterized by specific thinking patterns and capabilities. Elementary students (ages 7-11) typically function in the concrete operational stage, marked by logical reasoning about tangible objects and events, classification abilities, conservation understanding, but limited abstract thinking capacity (Piaget, 1964). This study, therefore, aimed to analyze the types and patterns of questions used in elementary students workbooks and their potential contribution to reading comprehension. This study aims to identify and analyze the types and questioning pattern used in elementary students workbooks and explore their potential effects on reading comprehension.

Method

This study employed a qualitative research design with a case study approach. The research focused on analyzing the questioning patterns used in selected workbooks for grades 3, 4, and 5. The selection of workbooks from these three grade levels was purposively chosen to represent varying stages of cognitive development among elementary students, as developmental progression. Similary, the choice of three informants one student from each grade was justified to capture diverse perspectives aligned with different cognitive stages, providing balanced insights into how question types resonate with students at distinct development levels. Three students, one from each grade were selected from SDN 009 Samarinda. Data were collected through document analysis and semi-structured interviews. Workbook questions were categorized into factual, inferential, open ended, and closed types, while interviews explored students experiences and preferences. Data were analyzed using qualitative content analysis. allowing the identification of recurring themes and patterns. Specifically, the qualitative content analysis followed (Pritom Gogoi & Chand Bunkar, n.d.), approach, involving four keys, there are data reduction to condense raw data into manageable units to identify initial patterns and themes, categorization to group codes into broader categories, and interpretation to derive meanings and implications from the categorized data. Triangulation was applied by comparing workbook analysis and interview data to ensure validity (Schlunegger et al., 2024). This triangulation process involved cross verifying findings from document analysis, question types in workbooks with interview responses, students preferences and experinces, thereby enhancing the credibility of the results by confirming consistencies and addressing potential biases in a single data source.

Results and Discussion

1. Distribution of Question Patterns in Elementary School Student Exercise Books

An analysis of 100 questions from workbooks for grades 3, 4, and 5 revealed a clear distribution pattern among the three types of reading comprehension questions. Overall, factual questions dominated with a proportiaon of 50%, followed by inferential questions at 30%, and open ended questions at 20%. These findings indicate that the workbooks analyzed tend to emphasize the development of basic comprehension skills that focus on recall and recognition of explicit information from the text. The dominance of factual questions in elementary school student workbooks can be understood from a pedagogical perspective as an effort to build a strong foundation for reading comprehension. Factual questions, which ask students to identify explicit information such as characters, places, times, and events in the text, help students develop basic skills

in extracting information directly from reading (Snow, 2022). These skills are an important prerequisite before students can perform more complex cognitive tasks such as making inferences or conducting critical analysis. However, the relatively low proportion of inferential questions (30%) and especially open ended questions (20%) raises questions about the balance in the development of higher order thinking skills. Research shows that inferential questions are very important for developing students' ability to make connections between textual information and their prior knowledge, as well as to draw conclusions that are not explicitly stated in the text (Wahyuni Fitria & Nafiah, 2025). Meanwhile, open ended questions encourage students to think critically, express personal opinions, and develop more in depth analytical skills (Sarwanto et al., 2021) and (Duran, 2023). The analysis of 100 questions across the selected workbooks revealed a notable distribution pattern, as presented in Table 1 below,

Table 1. Frequency and Proportion of Question Types in Elementary Workbooks.

Question Type	Frequency	Proportion	Grade Distribution
Factual	50	50%	Predominantly Grades 3-4
Inferential	30	30%	Balanced across all grades
Open Ended	20	20%	Predominantly Grades 4-5
Total	100	100%	-

Table 2. Types of Questions Found in the Workbooks and Students' Preferences

Grade Level	Preferred Question Type	Students Response	Cognitive Demand Level
Grade 3 (S3)	Factual	"I like when the questions are easy because I can find the answer quickly".	Early concrete operational (ages 7-8)
Grade 4 (S4)	Inferential	"I enjoy questions that make me think, such as "why did the character do it?".	Mid Concrete Operational (9-10)
Grade 5 (S5)	Open Ended	"I like questions that let me share my opinion, it makes reading more fun."	Late concrete operational/ early formal (10-11)

a. Distribution Patterns Based on Grade Level

Further analysis reveals interesting variations in the distribution of question types among the three grade levels studied. This pattern provides insight into how exercise book authors adjust the cognitive complexity of questions to the developmental stage of students.

1) Grade 3: Emphasis on Factual Questions

For grade 3, the distribution of questions shows a very strong dominance of factual questions with a proportion of 65%, while inferential questions reach 25%, and open ended questions only 10%. This pattern reflects a good understanding of the cognitive development characteristics of grade 3 students who are in the early stages of concrete operational thinking according to Piaget's theory (Piaget, 1964). Grade 3 students, who are generally 8-9 years old, still rely heavily on concrete and explicit information to build their understanding. At this stage, their ability to think abstractly and make complex inferences is still limited. Therefore, the emphasis on factual questions that ask students to identify information explicitly stated in the text is an approach that is appropriate for their cognitive capacity (Muzaki, 2024). Interviews with third-grade students support these findings. Students expressed a strong preference for questions that were "easy to

answer because the answers were in the story." When asked to elaborate, students explained that they felt more confident when they could find answers by searching for information in the text, compared to questions that asked them to "think for themselves about what might happen." However, a 10% proportion of open ended questions in third grade may be too low to begin introducing students to more complex critical thinking skills. Although third graders abstraction abilities are still developing, research shows that early exposure to questions that encourage creative thinking and personal responses can help lay the foundation for the development of higher-level cognitive skills in later years (Chin, 2023).

2) Grade 4: Transition Towards Balance

The distribution of questions for grade 4 shows a significant shift towards a better balance between the three types of questions. Factual questions decreased to 50%, while inferential questions increased to 35%, and open ended questions increased to 15%. This pattern reflects an understanding of the cognitive development of Grade 4 students, who are beginning to demonstrate better abilities in logical thinking and making connections between concepts. The increase in the proportion of inferential questions in Grade 4 is very important because at this stage, students begin to develop the ability to integrate information from various sources, make predictions based on textual evidence, and draw conclusions that are not explicitly stated (Ramsa & Rawian, 2021). Inferential questions challenge students to go beyond literal understanding and develop deeper interpretation skills. Fourth-grade students interviewed revealed interesting perspectives on their experiences with different types of questions. He stated that although factual questions were "quicker to answer," he felt more challenged and "more proud" when he successfully answered inferential questions that required him to "figure things out for himself even though they weren't written directly." This statement shows that fourth graders are beginning to appreciate higher cognitive challenges and develop intrinsic motivation to engage in more complex thinking. The increase in open ended questions to 15% in fourth grade is also a positive development, although this proportion could still be improved. Open ended questions provide opportunities for students to express their thoughts more freely, develop argumentation skills, and connect the text to their personal experiences (Tienken et al., 2023).

3) Grade 5: Towards Cognitive Balance and Complexity

The distribution of questions for Grade 5 shows the most balanced pattern among the three grade levels studied. Factual questions decreased further to 35%, while inferential and open ended questions increased to 35% and 30%, respectively. This pattern reflects the recognition of the increasingly mature cognitive abilities of Grade 5 students and their need to engage in more complex comprehension tasks. Grade 5 students, who are generally 10-11 years old, are in the final stage of the concrete operational period and are beginning to show early signs of formal operational thinking. At this stage, they are capable of more abstract thinking, considering multiple perspectives, and engaging in more in depth critical analysis (Piaget, 1964). Therefore, a significant increase in the proportion of inferential and open ended questions is in line with their developing cognitive capacities. A better balance between the three types of questions in fifth grade also reflects a more holistic approach to the development of reading comprehension. Although factual questions still have an important place in ensuring a basic understanding of text content, a greater proportion of inferential and open ended questions encourages students to develop critical and analytical thinking skills that will become increasingly important at higher levels of education (Ekalia et al., 2025). The fifth-grade students interviewed expressed a clear preference for inferential and open ended questions. He explained that these questions are "more interesting because they make me think more

deeply" and "are not boring like just looking for answers in the text." This student also stated that he enjoyed open ended questions that allowed him to "give his own opinion and explain his reasons," demonstrating a higher level of metacognitive awareness about his own thinking process.

However, the 30% proportion of open ended questions in grade 5, although a significant increase from previous grades, could still be further improved. Research shows that open ended questions are highly effective in developing critical thinking, creativity, and argumentation skills, which will be essential for students' academic success in high school and beyond (Duran, 2023).

2. Analysis of Question Pattern Progressivity

When data from the three grade levels were analyzed longitudinally, a clear progressive pattern emerged. There was a gradual decrease in the proportion of factual questions from grade 3 (65%) to grade 4 (50%) and to grade 5 (35%), accompanied by a gradual increase in inferential questions (from 25% to 35% to 35%) and open ended questions (from 10% to 15% to 30%). This pattern indicates that the authors of the workbook have considered students' cognitive development in designing reading comprehension questions.

This progressiveness is in line with the principles of scaffolding in education, where instructional support is gradually reduced as students' competence increases (Muzaki, 2024). By starting with an emphasis on factual questions in grade 3 and gradually increasing the cognitive complexity of questions in higher grades, this workbook provides a structured developmental path for students' reading comprehension skills.

However, there are several areas for improvement in this progress. First, the increase in inferential questions from grade 4 to grade 5 is relatively small (from 35% to 35%), indicating stagnation in the development of these skills at higher levels. Second, although there is a significant increase in open ended questions from grade 3 to grade 5, the proportion of 30% in grade 5 may still be insufficient to optimally develop the critical and analytical thinking skills required by students at higher levels of education.

3. Suitability of Question Patterns to Students Cognitive Development Stages

An analysis of the suitability of the question patterns in the exercise books and students' cognitive development stages revealed complex findings. Overall, there was good suitability between the distribution of question types and students cognitive capacities at each grade level, especially in terms of the progressiveness from simpler to more complex questions. However, there were also areas where this suitability could be improved to better support students' cognitive development.

a. Compatibility with Piaget's Cognitive Development Theory

According to Piaget's theory, elementary school students are in the concrete operational stage (ages 7-11), in which they develop the ability to think logically about concrete objects and events, but still have difficulty with abstract and hypothetical thinking (Piaget, 1964). The pattern of questions found in this study generally reflects an understanding of this stage of development.

1) Grade 3: Emphasis on Concretization

The dominance of factual questions (65%) in grade 3 is consistent with the characteristics of students in the early stages of concrete operational thinking, who are still highly dependent on explicit and concrete information to build their understanding. At this stage, students are more successful in tasks that require them to remember and identify explicit information than in tasks that require inference or more complex abstract

thinking. Interviews with Grade 3 students support this finding. One student said that he found it "easier and more enjoyable" to answer questions whose answers "could be found directly in the story." When asked about questions that asked them to predict or give an opinion, the student stated that such questions were "confusing" and that they were "not sure if the answer was correct." However, the proportion of inferential (25%) and open ended (10%) questions in third grade, although relatively small, indicates an effort to begin introducing students to more complex types of thinking. This is an appropriate approach because research shows that early exposure to more challenging cognitive tasks can help prepare students for the transition to the next stage of cognitive development (Muzaki, 2024).

2) Grades 4 and 5: Transition to More Complex Thinking

The gradual increase in the proportion of inferential and open ended questions from Grade 3 to Grade 5 reflects the development of students' cognitive abilities as they age. Grade 4 and 5 students, who are in the final stages of concrete operational thinking and are beginning to show early signs of formal operational thinking, are better able to engage in tasks that require inference, analysis, and critical thinking. The 4th grade student interviewed showed a growing awareness of his own ability to handle more complex questions. He stated that although inferential questions were "more difficult," he felt "more challenged" and "more satisfied" when he successfully answered them. This shows that students at this level are beginning to develop the metacognitive ability to recognize and appreciate their own thinking processes. Fifth graders showed a stronger preference for inferential and open ended questions, explaining that these questions were "more interesting" and "made me think more deeply about the story." These students also demonstrated the ability to articulate the strategies they used when answering inferential questions, such as "looking for clues in the story" and "connecting with what I already know," showing significant development in metacognitive awareness and problem-solving skills.

4. Implications for the Development of Higher order Thinking Skills

Although the pattern of questions in the workbooks analyzed shows general consistency with students' cognitive development stages, there is concern that an excessive emphasis on factual questions, especially in grades 3 and 4, may limit the development of higher order thinking skills. Research shows that students need to be consistently exposed to questions that challenge their cognitive abilities in order to develop critical, analytical, and creative thinking skills (Chin, 2023).

a. Risk of Dependence on Low-Level Thinking

The high proportion of factual questions, especially in grades 3 (65%) and 4 (50%), can create a pattern of dependence on low level thinking that focuses on recall and recognition of explicit information. If students become accustomed to questions that only require them to identify explicit information, they may experience difficulties when faced with tasks that require analysis, synthesis, or evaluation at higher levels of education (Ekalia et al., 2025). This concern is supported by the literature on learning transfer, which shows that skills developed through repetitive practice tend to become automatic and difficult to modify or transfer to different contexts (Tienken et al., 2023). If students spend most of their time practicing factual questions, they may develop a superficial approach to texts that does not involve deep or critical thinking.

b. The Importance of Balance and Variety

To optimize the development of comprehensive reading comprehension skills, it is important to achieve a better balance between the three types of questions at all grade levels. Although factual questions play an important role in ensuring basic understanding

of text content, students also need to be consistently exposed to inferential and open ended questions that encourage them to think more deeply, make connections, and develop analytical skills (Mondesir & Griffin, 2020). This balanced approach aligns with the principles of the balanced literacy approach, which emphasizes the importance of integrating various types of instruction and practice to develop comprehensive literacy skills. In the context of reading comprehension questions, this means providing students with sufficient opportunities to practice not only recalling explicit information, but also inference, analysis, synthesis, and evaluation (Mondesir & Griffin, 2020).

5. Student Preferences and Their Compatibility with Cognitive Stages

Findings from interviews with students reveal interesting patterns in their preferences for different types of questions, and these preferences are generally in line with their cognitive development stages.

a. Third Grade Students: Preference for Concreteness and Clarity

The third grade students interviewed showed a strong preference for factual questions with clear answers that could be found directly in the text. He explained that he felt "more confident" when answering such questions because he "knew the answer was correct." Conversely, he expressed discomfort with inferential and open ended questions, which he found 'confusing' because "there was no definite answer."

This preference is consistent with the cognitive development characteristics of third-grade students, who still rely heavily on concrete and explicit information. At this stage, students tend to seek clarity and certainty in their learning, and they may feel uncomfortable with ambiguity or tasks that require subjective interpretation (Muzaki, 2024).

However, it is important to note that student preferences do not always align with what is most beneficial for their cognitive development. Although third graders may be more comfortable with factual questions, they also need to be exposed to more challenging questions in order to develop higher order thinking skills. Therefore, it is important for educators and exercise book authors to find a balance between providing students with questions that match their comfort level and challenging them to grow beyond that comfort zone.

b. Fourth Grade Students: Transition and Appreciation of Challenges

The fourth grade students interviewed showed a more nuanced perspective on different types of questions. Although he still felt that factual questions were "easier and quicker to answer," he also expressed a growing appreciation for inferential questions that "make me think more deeply." He explained that even though inferential questions were "more difficult," he felt "more proud" when he managed to answer them correctly. This shift in attitude reflects the cognitive and motivational development that occurs in 4th graders. At this stage, students begin to develop the ability to appreciate cognitive challenges and experience intrinsic satisfaction from overcoming difficult tasks (Masduki, 2022). This is an important development because intrinsic motivation and the ability to persevere in the face of challenges are strong predictors of long-term academic success. However, this fourth grade student also revealed that he sometimes feels "frustrated" when he cannot find the answer to an inferential question, indicating that he is still developing the strategies and confidence needed to handle more complex questions. This highlights the importance of providing appropriate scaffolding and support when introducing students to more challenging questions.

c. 5th Grade Students: Preference for Complexity and Depth.

The 5th grade student interviewed showed a clear preference for inferential and open ended questions. He explained that factual questions were 'too easy and boring,'

whereas inferential and open ended questions were 'more interesting because they make me think more deeply about the story. He also expressed that he enjoys open ended questions that allow him to give my own opinion and explain my reasoning, indicating an appreciation for opportunities to express personal thoughts and develop argumentative skills. This preference aligns with the cognitive development of 5th-grade students, who are beginning to show the ability to engage in more abstract and analytical thinking. At this stage, students are not only able to make inferences and analyze texts, but they also begin to develop a higher metacognitive awareness of their own thinking processes and the ability to evaluate and regulate their learning (Ekalia et al., 2025). These fifth grade students also demonstrate more sophisticated strategies when dealing with complex questions. He explains that when answering inferential questions, he 'looks for clues in the story,' 'connects with what I already know,' and 'tries to imagine what might happen.' These strategies indicate significant development in metacognitive abilities and problem-solving skills.

6. Implications for Exercise Book Design and Pedagogical Practice

The findings of this study have important implications for the design of reading comprehension exercise books and pedagogical practices in elementary schools. Although the question patterns found generally align with students' cognitive development stages, there are several areas where improvements can be made to more optimally support the development of comprehensive reading comprehension skills.
Recommendations for the distribution of question types based on research findings and literature on cognitive development and literacy learning, here are recommendations for a more optimal distribution of question types at each grade level:

1) Grade 3: Maintaining the Foundation While Introducing ComplexityFor grade 3, the proportion of factual questions can be slightly reduced from 65% to around 55-60%, with a corresponding increase in inferential questions (from 25% to 25-30%) and especially open ended questions (from 10% to 15-20%). While grade 3 students still need an emphasis on literal comprehension, the increase in more complex questions will help prepare them for the transition to higher cognitive levels.Open ended questions in grade 3 should be designed to be accessible and not too abstract, for example by asking students to connect the story with their personal experiences or to imagine an alternative ending for the story. This type of question can help students begin to develop the ability to think beyond explicit information while still remaining within their zone of proximal development (Chin, 2023).
2) Grade 4: Achieving a Better BalanceFor grade 4, the proportion of factual questions can be further reduced to around 40-45%, with a significant increase in inferential questions (from 35% to 35-40%) and open ended questions (from 15% to 20-25%). At this stage, students have already developed basic skills in literal comprehension and are ready to focus more on developing higher order thinking skills.Inferential questions in grade 4 should cover a variety of types of inferences, including predicting outcomes, drawing conclusions about character motivations, and identifying themes or implicit messages in the text. Open ended questions can begin to ask students to compare and contrast, evaluate character decisions, or connect the text to broader issues (Wahyuni Fitria & Nafiah, 2025).
3) Grade 5: Emphasizing Critical Thinking SkillsFor grade 5, a more balanced distribution that emphasizes higher order thinking skills would be more optimal. The proportion of factual questions can be reduced to around 25-30%, while inferential and open ended questions can each be increased to around 35-40%. At this stage, students should already be capable of consistently engaging in analysis, synthesis,

and evaluation of texts.Inferential and open ended questions in grade 5 should challenge students to engage in deeper critical thinking, including analyzing text structures, evaluating the author's arguments, comparing different perspectives, and applying concepts from the text to new situations. These types of questions will help prepare students for the transition to secondary school, where critical and analytical thinking skills become increasingly important (Ekalia et al., 2025).

7. Scaffolding Strategies for Complex Questions

To ensure that students can successfully handle more complex inferential and open ended questions, it is important to provide appropriate scaffolding. Some strategies that can be integrated into the design of exercise books include:

a. Modeling and Examples Exercise books can include examples of inferential and open ended questions that have been well answered, along with explanations of the thought processes used to arrive at those answers. This will help students understand the types of thinking expected and develop their own strategies for handling complex questions (Masduki, 2022).

b. Guiding Questions
For more challenging inferential and open ended questions, practice books can include guiding questions that help students break tasks into smaller, more manageable steps. For example, before asking students to draw conclusions about the theme of a story, guiding questions can ask them to first identify key events and patterns in the story (Chin, 2023).

c. Graphic Organizers
Including graphic organizers such as Venn diagrams, story maps, or cause and effect charts can help students organize their thoughts and make connections between various elements of the text. These visual tools are especially beneficial for students who are still developing the ability to think abstractly (Ramsa & Rawian, 2021).

8. Integration with Classroom Instruction

Although workbooks are an important learning tool, they should be used as a supplement, not a replacement, for direct instruction and classroom interaction. Teachers play a crucial role in helping students develop comprehensive reading comprehension skills through:

a. Class Discussions and Think-AloudsTeachers can use the think aloud technique to model the thinking process involved in answering various types of comprehension questions. Class discussions also provide opportunities for students to hear different perspectives and learn from their peers' thinking (Masita et al., 2024).

b. Differentiation and Individual Support Teachers must recognize that students in the same class may be at different stages of cognitive development and require varying levels of support. Differentiation of instruction, including providing questions with varying levels of difficulty and additional support for students who are struggling, is essential to ensure that all students can thrive (Mondesir & Griffin, 2020).

c. Constructive FeedbackProviding specific and constructive feedback on students' answers, especially for inferential and open ended questions, can help students understand their strengths and areas that need improvement in their thinking. Feedback should focus not only on the correctness of the answers but also on the thinking process used (Masduki, 2022).

9. Limitations and Directions for Future Research

This study has several limitations that need to be considered, including the limited sample size, where the analysis only involved 100 questions from workbooks and interviews with three students (one from each grade level), thus restricting the generalization of the findings to the broader elementary school student population because their preferences and experiences may not fully represent the diversity of perspectives. In addition, this study focused on workbooks from a specific educational context, so the question patterns found may differ in workbooks from other publishers, curricula, or geographical contexts, requiring caution in generalizing the results. Finally, the qualitative analysis approach provides deep insights but is influenced by the researcher's interpretation, and although steps such as interrater agreement and data triangulation have been taken to ensure reliability and validity, the inherent subjectivity of this method remains an important consideration.

Based on these limitations and research findings, several directions for future research can be identified, such as studies with larger and more diverse samples involving the analysis of exercise books from various publishers, curricula, and geographic contexts to gain a comprehensive understanding of question patterns in reading comprehension learning materials, as well as interviews or surveys with more representative students. Additionally, longitudinal studies following students from grade 3 to grade 5 or higher could explore the development of students preferences and abilities over time, including the relationship between exposure to certain types of questions and long term reading comprehension skills. Experimental research comparing student learning outcomes using exercise books with different distributions of question types, such as a higher proportion of open ended questions versus conventional ones, could provide causal evidence on the effectiveness of question design. Furthermore, integration with digital technology can explore the use of digital platforms and adaptive learning systems for personalized reading comprehension questions based on students' cognitive development, thereby informing more responsive learning tools. Finally, the perspectives of teachers and textbook authors can be explored through interviews to understand the use of question types in instruction as well as the decision-making process in designing materials, providing comprehensive insights from educational stakeholders.

Conclusion

This study has demonstrated that questioning patterns in elementary students' workbooks reflect an imbalanced emphasis on factual questions (50%), with moderate attention to inferential questions (30%) and limited inclusion of open ended questions (20%). While this distribution provides important foundational practice, it may not optimally support the development of critical thinking and higher order comprehension skills, particularly for students in upper elementary grades. The alignment between student preferences and cognitive development stages with younger students preferring factual questions and older students gravitating toward inferential and open ended questions validates theoretical frameworks from Piaget and Bloom while highlighting the importance of developmentally appropriate questioning. However, the predominance of factual questions even in Grade 5 workbooks suggests that educational materials may underestimate students' cognitive capabilities and readiness for more complex thinking tasks. The pedagogical implications are clear: workbook authors, teachers, and curriculum developers should work toward more balanced questioning approaches that progressively build from foundational to sophisticated comprehension skills. By intentionally designing questioning sequences that scaffold students through increasing levels of cognitive complexity, educators can better support the development of critical

thinking, analytical reasoning, and personal meaning making skills essential not only for academic success but for lifelong learning and civic participation. Future research should build on these findings through longitudinal studies, experimental interventions, and examinations of questioning patterns in diverse contexts and formats. As educational materials continue to evolve, particularly with the integration of digital technologies, ongoing attention to questioning design will remain crucial for optimizing reading comprehension instruction and supporting all students in becoming skilled, engaged, and critical readers.

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