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Year 6 Mathematics Teachers' Perception Level towards The 2017 Kssr Revised Year 6 Mathematics Textbook

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Abstract

This research explores the perspectives of Year 6 mathematics teachers on the 2017 Revised KSSR mathematics textbook, with a focus on its content, exercises, activities, and graphical representations. Data were gathered through a survey distributed to 120 Year 6 mathematics teachers in elementary schools within the Seremban area. Employing descriptive statistical analysis, the study revealed that teachers hold a high regard for the mathematics textbook in question. Key findings indicate that teachers perceive the textbook to offer relevant and beneficial content, exercises, and activities, as well as graphs that aid in engaging and enhancing student comprehension. These insights offer valuable direction for textbook authors and publishers aiming to tailor their materials to more effectively serve the educational needs of teachers and students alike. This investigation underscores the significance of comprehending teachers' perceptions towards mathematics textbooks to foster an improvement in the quality of education at the elementary level.

Keywords: Teacher Perceptions, Mathematics Education, Descriptive Statistical Analysis

Introduction

The ongoing technological advancements in the realm of education have facilitated access to information from various sources for both teachers and students. Printed and electronic materials are readily available and their contents are effectively utilized. Educators and learners alike consider different teaching resources to select materials that align with their learning objectives. Despite this, textbooks remain an indispensable teaching resource worldwide (Garcin, 2018). The use of mathematics textbooks accounts for up to 95% of teaching and learning time, according to (Benavot & Jere, 2016; Fan et al., 2013; Pepin et al., 2013). Textbooks not only serve as sources of information and knowledge but also assist students in comprehending the structure of the subject matter. This is crucial to the educational process. Furthermore, textbooks reflect societal values and expectations, which are often reflected in various aspects of life, including education. For instance, textbooks can express these values and expectations through the materials taught and how they are

presented. Therefore, ensuring the quality of textbooks is a significant concern for teachers to ensure quality and effective education for student learning (UNESCO, 2020).

Problem Statement

In Malaysia, the Ministry of Education focuses on developing critical thinking skills and the application of knowledge by students, necessitating more advanced learning approaches in line with technological advancements. The Malaysia Education Blueprint 2013-2025 (MEB) emphasizes the importance of revising textbook production to ensure alignment with the ongoing curriculum transformation. An often overlooked aspect of this process is the perspective and perception of teachers towards textbooks. Teachers' perceptions of textbooks are critical as they act as intermediaries between the curriculum and students, ensuring a high-quality teaching and learning process (Fam & Tan, 2022).

The role of teachers in evaluating and selecting textbooks is vital for the success of the teaching and learning process. McDuffie et al (2018) assert that without curriculum materials that align with predetermined educational objectives, teachers cannot effectively impart knowledge. Therefore, teachers' perceptions and views should be a primary consideration in the textbook development process. This is to ensure they are equipped with the best resources to support student learning. Without up-to-date resources that align with educational goals, effective knowledge transmission is compromised. This study is essential for gathering vital information to assist in the development of future textbooks that facilitate a learning process meeting the standards of the Curriculum and Assessment Standard Document (DSKP). Teachers help students understand content and guide them in completing activities and exercises with correct and concise strategies and steps (Al Tamimi, 2018). The significance of teachers' roles is such that their views become a primary guide, especially in the development of textbook designs.

Study Objectives

This study aims to identify the level of perception among Year 6 mathematics teachers regarding the 2017 KSSR Revised Year 6 mathematics textbook, focusing on aspects of content, exercises and activities, and graphics within the textbook. The question it seeks to answer is:

i. What is the level of perception among Year 6 mathematics teachers towards the 2017 KSSR Revised Year 6 mathematics textbook?

Literature Review

The Use of Mathematics Textbooks as a Teaching Resource

The use of textbooks as a resource in teaching mathematics plays a crucial role in enhancing the quality of learning in classrooms. As one of the 13 primary sources influencing mathematics teaching, textbooks function not only as resource materials but also as guides for teachers in planning, designing, and implementing teaching, as well as providing exercises and activities for students (KPM, 2019). Studies on primary school teachers in Malaysia have shown a high dependency on textbooks for effective mathematics teaching delivery, with 82.9% of teachers acknowledging frequent textbook use as aligned with the requirements of the Curriculum and Assessment Standard Document (DSKP) (Julie & Maat, 2021; Asyrani & Rosli, 2020).

Mathematics textbooks provide a structured framework to help teachers deliver complex subject matter in an organized and systematic way. This includes providing detailed

examples and step-by-step explanations to facilitate students' understanding of mathematical concepts (Julie & Maat, 2021). Additionally, textbooks act as teaching guides in selecting teaching strategies. Textbooks help organize activities systematically and determine suitable assessments and evaluations, enabling a more flexible and responsive teaching approach (Gholami, et al., 2021).

Furthermore, textbooks provide various exercises and activities designed to reinforce learning and deepen students' understanding. These exercises allow students to apply learned concepts in different situations, developing problem-solving and critical thinking skills (Singh et al., 2020). In summary, mathematics textbooks are a primary source in math teaching, serving as a source of structured materials, a comprehensive teaching guide and a source of exercises and activities to enhance students' math learning achievements.

Content of the 2017 Revised KSSR Year 6 Mathematics Textbook

The mathematics textbook for Year 6, following the 2017 KSSR revision, has been restructured to align with current curriculum needs, including a focus on 21st-century learning. The content of this textbook is specifically designed to focus on comprehensive content elements, assessment and evaluation elements, and mathematical concept elements to ensure effective and comprehensive mathematics learning. The content covers various mathematical topics designed to develop a solid understanding of mathematical concepts among students. These topics include numbers and operations, measurement, geometry, algebra, and statistics. Each topic is designed to cultivate high-level thinking skills (KBAT) through student-centered approaches, encouraging investigation and critical thinking (KPM, 2019).

This textbook also integrates assessment and evaluation elements in line with the Dokumen Standard Kurikulum Pentaksiran (DSKP). This includes continuous formative assessment through activities and exercises in the textbook and summative assessment at the end of each unit or topic. This approach allows teachers to monitor students' learning progress and adjust teaching to meet the individual learning needs of students (Asyrani & Rosli, 2020). Mathematical concepts in this textbook are presented through contextual approaches and applications, ensuring students can relate mathematical learning to real life. This includes using real-life-based problems and activities that encourage students to apply mathematical concepts in various contexts and strengthen their understanding and problem-solving skills (Chuen & Rosli, 2021).

Exercises and Activities in the 2017 Revised KSSR Year 6 Mathematics Textbook

In the context of mathematics education in Malaysia, the 2017 Revised KSSR mathematics textbook plays a significant role, especially for Year 6 students. The textbook functions not only as a source of information but also as a tool that aids in the development of conceptual skills, problem-solving, and critical thinking in students. The importance of the exercises and activities included in the textbook cannot be understated, as they build a strong foundation for effective and meaningful mathematics learning.

The exercises and activities in the textbook are designed to reinforce students' understanding of mathematical concepts, enabling them to explore and comprehend mathematics as a universal language used to describe the world (KPM, 2017). Through a student-centered approach, the textbook encourages students to be active in their learning process, enhancing their understanding and ability to apply mathematical concepts in various situations. Furthermore, the exercises and activities provided in the textbook play a crucial role in developing students' problem-solving skills. By emphasizing the application of

concepts in real problem situations, students are taught to use different strategies and think critically to find the most effective solutions (Asyrani & Rosli, 2020).

Graphics in the 2017 Revised KSSR Year 6 Mathematics Textbook

The aspect of graphics and illustrations has been proven essential in stimulating interest and understanding complex mathematical concepts. Studies by Gracin (2018) and Mainali, B. (2021) demonstrate how the use of visuals can deepen mathematical understanding, highlighting the importance of graphic representation in mathematics teaching and learning. Gracin (2018) found that the use of diagrams, tables, and graphs strengthens the understanding of mathematical concepts. Mainali (2021) explored how visual representations such as symbols and graphs can help bridge the gap between reality, knowledge, and text, indicating the crucial role of visuals in overcoming knowledge gaps.

Kersten-Parrish & Dallacqua (2018) suggested the use of non-fiction graphs in mathematics textbooks to graphically convey facts without altering the original meaning. However, Cooper et al (2018) criticized the use of graphical materials that are often irrelevant and serve merely as decoration, not supporting mathematics learning. Zulnaidi et al (2020) examined the impact of GeoGebra software on student achievements in the functions chapter, showing that graphical and illustrative approaches positively affect students' understanding. The use of this software also stimulates active interaction between students and teachers. Clark et al (2006); Gates (2018) showed that visualization can reduce cognitive load by using the visual system for representation, organization and interpretation of text into visual images, aiding in long-term memory retention.

Methodology

Research Methodology

This study employed a quantitative research design, specifically a survey method, aimed at identifying the level of perception among Year 6 mathematics teachers regarding the KSSR Revised Year 6 mathematics textbook. The initial stage involved obtaining permission to conduct this research through the eRAS 2.0 system, managed by the Educational Planning and Research Division (EPRD) of the Ministry of Education Malaysia, the Negeri Sembilan State Education Department (JPNNS), and the Seremban District Education Office (PPD). With support from the PPD Seremban officers, a questionnaire in Google Form format was distributed online to school administrators to be given to Year 6 mathematics teachers across all primary schools in the Seremban district.

Population and Sample Study

The chosen population for this study included Year 6 mathematics teachers in primary schools in the Seremban district, Negeri Sembilan. This selection strategically encompassed a variety of teacher backgrounds from urban, rural, and less-populated schools, including both mathematics-specialized and non-specialized teachers. This diversity aimed to capture a broader and more accurate level of perception regarding the 2017 Revised KSSR Year 6 mathematics textbook among mathematics teachers.

According to Krejcie and Morgan's (1970) sample size table, which recommends a 5% sampling error with a 95% confidence level, a population of 150 to 175 teachers requires a sample size of about 115 to 120 teachers. Consequently, with a population of 173 Year 6 mathematics teachers in the Seremban area, as obtained from the Seremban District Education Office, the researcher randomly selected 120 Year 6 mathematics teachers for the

study sample. This was because the survey design necessitated a large and balanced sample size, where increasing the number of respondents beyond the set number could enhance the accuracy of statistical analysis and findings of a study (Cohen et al., 2018; Taherdoost, 2017).

Table 1
Teacher demographics by gender

	Number of teachers	Frequency (%)
Male	59	49.2
Female	61	50.8
Total	120	100

Pilot Study

The questionnaire instrument concerning mathematics teachers' perceptions of the Mathematics Textbook (MTB) was adapted from a study conducted by Asyrani Abdul Sama and Roslinda Rosli in 2020. This instrument was validated in terms of content and face validity by mathematics education lecturers and outstanding teachers who are also experienced language experts with more than 20 years in the education sector. A pilot study was conducted to assess and identify areas requiring improvement in the survey instrument on the perception of Year 6 mathematics teachers towards the MTB before it was implemented in the main research. Based on Johanson and Brooks (2010), the recommended minimum sample size for a pilot study in education and social sciences is 30 respondents. Therefore, the pilot study was carried out with the voluntary participation of 33 mathematics teachers who had characteristics similar to the main study sample, who responded to the survey distributed online.

Through the pilot study, the instrument's reliability in Cronbach's alpha values for all items exceeded 0.80, indicating high and acceptable reliability (Cohen et al., 2018). Table 2 shows the results of the reliability analysis of the instrument based on the initial analysis of this study. There were a total of 45 items tested, and the obtained Cronbach's alpha value was 0.935. This indicates that the items in this questionnaire are highly reliable.

Table 2
Reliability Test Results

Alpha Cronbach	Items
0.935	45

Analysis Methods

The instrument was divided into four sections. Section A contains six items about the demographic information of the respondents, while Sections B, C, and D each contain 15 items. Section B includes items about the content of the Mathematics Textbook (MTB). Teachers' perceptions of the suitability of exercises and activities provided in the textbook are addressed in Section C, and Section D includes items on MTB graphics. The survey instrument scale used is a Five-Point Likert Scale. The options given for Sections B, C, and D are Strongly Disagree (SD), Disagree (D), Uncertain (U), Agree (A), and Strongly Agree (SA). A percentage calculation was performed on all tested items. In addition, items were analyzed using the Statistical Package for the Social Sciences (SPSS) version 27.0 to obtain mean values. The mean values obtained were categorized into four levels: low, moderately low, moderately

high, and high. Researchers carried out the mean score assessment based on the assessment by Nunnally and Bernstein (1994), interpreting the mean level of teachers' perceptions towards MTB in this study as shown in the following Table 3:

Table 3
Table of Determining Mean Score

Bil	Mean Score	Level
1	4.00 to 5.00	High
2	3.01 to 4.00	Moderate High
3	2.01 to 3.00	Moderate Low
4	1.00 to 2.00	Low

Source: Nunnally, J. C. & Bernstein 1994

Research Finding

The obtained data from the questionnaire was analyzed using descriptive statistical analysis, which shows the mean scores and standard deviation values to determine the level of mathematics teachers' perceptions towards the Mathematics Textbook (MTB). Based on the feedback received, the overall mean score of mathematics teachers' perceptions of MTB is at a high level.

Table 4
Stage Of Teacher Perception Towards 2017 KSSR Year 6 Mathematics Textbooks Revised

	N	Minimum	Maximum	Mean	Standard Deviation
Content in MTB	120	3.89	4.21	4.10	0.427
Exercises and Activities in MTB	120	3.75	4.43	4.17	0.413
Graphic in MTB	120	3.94	4.35	4.18	0.443
Mean Level of Perception				**4.15**	**High**

Specifically, the mean score for the content of the Mathematics Textbook (MTB) is 4.10. Meanwhile, exercises and activities scored a mean of 4.17, and the mean score for MTB graphics was 4.18. The overall mean score for MTB is 4.15. Mean scores exceeding 4.00 up to 5.00 are categorized as high (Nunnally & Bernstein, 1994). The uniform minimum and maximum values for each aspect indicate consistency in teachers' responses to content, exercises and activities, as well as graphics in MTB. Low standard deviation values indicate precision and consistency in teachers' responses. This analysis provides a positive overview of how teachers evaluate the 2017 KSSR Year 6 mathematics textbook.

Content of the 2017 KSSR Revised Year 6 Mathematics Textbook

One of the most critical elements in understanding teachers' perceptions of the MTB is the content of the textbook itself. Considering the textbook content is crucial for assessing the quality of the book and how teachers receive this content during the teaching and learning process. The textbook content is based on the predefined curriculum. The MTB content aspect was evaluated through 15 items that were analyzed. Table 5 provides further information for reference.

Table 5
Frequency of Content in the Year 6 KSSR Mathematics Textbook (2017 Revision)

Item	SD	D	TS	A	SA	Mean	Standard Deviation
The MTB content includes all the basics that students need to learn.	0 (0%)	0 (0%)	23 (19.2%)	52 (43.3%)	45 (37.5%)	4.18	0.733
The MTB content is aligned with the Standard Kandungan (SK).	0 (0%)	0 (0%)	21 (17.5%)	67 (55.8%)	32 (26.7%)	4.09	0.661
The MTB content follows the Standard Pembelajaran (SP).	0 (0%)	0 (0%)	12 (10.0%)	85 (70.8%)	23 (19.2%)	4.09	0.534
The MTB content is designed based on the DSKP requirements.	0 (0%)	0 (0%)	10 (8.3%)	78 (65.0%)	32 (26.7%)	4.18	0.565
The MTB content is aligned with the Falsafah Pendidikan Kebangsaan (FPK).	0 (0%)	0 (0%)	32 (26.7%)	31 (25.8%)	57 (47.5%)	4.21	0.839
The MTB content is comprehensive and aligns with the objectives and learning outcomes for MTB content in DSKP.	0 (0%)	0 (0%)	29 (22%)	46 (38.3%)	45 (37.5%)	4.13	0.777
The MTB integrates added value elements (creativity and innovation, entrepreneurship, and information and communication technology).	0 (0%)	0 (0%)	12 (10.0%)	85 (70.8%)	23 (19.2%)	4.09	0.534
The MTB integrates skills and values.	0 (0%)	7 (5.8%)	10 (8.3%)	71 (59.3%)	32 (26.7%)	4.07	0.764
The MTB explains concepts accurately.	0 (0%)	0 (0%)	23 (19.2%)	52 (43.3%)	45 (37.5%)	4.18	0.733
Students can master the skill of identifying numbers using MTB.	0 (0%)	0 (0%)	21 (17.5%)	67 (55.8%)	32 (26.7%)	4.09	0.661
Students can master the skill of applying basic operations using MTB.	0 (0%)	0 (0%)	12 (10.0%)	85 (70.8%)	23 (19.2%)	4.09	0.534
Students can master the skill of solving problems using MTB.	0 (0%)	0 (0%)	10 (8.3%)	78 (65.0%)	32 (26.7%)	4.18	0.565
The MTB contains elements of multi-level thinking skills.	0 (0%)	4 (3.3%)	33 (27.5%)	48 (40.0%)	35 (29.2%)	3.95	0.839

The MTB contains elements of High-Level Thinking Skills.	0 (0%)	2 (1.7%)	31 (25.8%)	65 (54.2%)	22 (18.3%)	3.89	0.708
The MTB contains elements that stimulate thinking and challenge the minds of students.	0 (0%)	6 (5.0%)	12 (10.0%)	79 (65.8%)	23 (19.2%)	3.99	0.704
Mean Level of MTB Content						**4.10**	**High**

Indicator: SD: Strongly Disagree, D: Disagree, TS: Uncertain, A: Agree, SA: Strongly Agree

Overall, teachers agree with the MTB content, with 90% endorsing statements such as "The MTB content follows the Learning Standards (SP)," "MTB content integrates added value elements (creativity and innovation, entrepreneurship, and information and communication technology)" and "Students can master the skills of applying basic operations using MTB." However, a small minority of teachers (< 10%) disagreed with statements like "MTB content integrates skills and values," "MTB contains elements of multi-level thinking skills," "MTB contains elements of High-Level Thinking Skills," and "MTB contains elements that stimulate and challenge students' thinking." After descriptive analysis was conducted, the overall mean score for content items was found to be 4.10. This finding clearly proves that Year 6 Mathematics teachers positively receive the content of the 2017 KSSR revised Year 6 mathematics textbook.

Exercises and Activities in the 2017 KSSR Revised Mathematics Textbook

The exercises and activities section of the 2017 KSSR Revised Mathematics Textbook (MTB) was evaluated through the analysis of 15 items. This evaluation aims to understand Year 6 mathematics teachers' perceptions of the textbook's exercises and activities. The significance of this section lies in its ability to engage students actively and enhance their understanding of mathematical concepts through practical application.

Table 6
Frequency Of Exercises and Activities In The Year 6 KSSR Mathematics Textbook (Revision)

Item	SD	D	TS	A	SA	Mean	Standard Deviation
MTB activities are aligned with students' cognitive levels.	0 (0%)	3 (2.5%)	23 (19.2%)	49 (40.8%)	45 (37.5%)	4.13	0.809
MTB uses clear and understandable instructions and questions.	0 (0%)	0 (0%)	7 (5.8%)	54 (45.0%)	59 (49.2%)	4.43	0.604
Activities in MTB are aligned with DSKP learning objectives.	0 (0%)	0 (0%)	23 (19.2%)	31 (25.8%)	66 (55.0%)	4.36	0.786
MTB uses clear and understandable directives.	0 (0%)	3 (2.5%)	21 (17.5%)	64 (61.7%)	22 (18.3%)	3.96	0.679
MTB activities integrate elements of High-Level Thinking Skills.	0 (0%)	0 (0%)	10 (8.3%)	57 (47.5%)	53 (44.2%)	4.36	0.632

Students can perform activities in MTB individually and in groups.	0 (0%)	0 (0%)	21 (17.5%)	55 (45.8%)	44 (36.7%)	4.19	0.714
Students can express what they learned during MTB sessions.	0 (0%)	0 (0%)	19 (15.8%)	54 (45.0%)	47 (39.2%)	4.23	0.707
MTB activities motivate students to learn.	0 (0%)	0 (0%)	10 (8.3%)	78 (65.0%)	32 (26.7%)	4.18	0.565
MTB includes activities addressing assessment, usage, and application.	0 (0%)	4 (3.3%)	29 (24.2%)	42 (37.5%)	45 (37.5%)	4.07	0.867
Assessment in MTB matches students' understanding level.	0 (0%)	4 (3.3%)	1 (0.8%)	93 (77.5%)	22 (18.3%)	4.11	0.562
MTB activities are focused only on knowledge level.	0 (0%)	9 (7.5%)	35 (29.2%)	53 (44.2%)	23 (19.2%)	3.75	0.853
MTB exercises require only numerical answers.	0 (0%)	0 (0%)	11 (9.2%)	56 (46.7%)	53 (44.2%)	4.35	0.644
MTB exercises help students solve problems.	0 (0%)	0 (0%)	33 (27.5%)	21 (17.5%)	66 (55.0%)	4.28	0.869
MTB exercises include various types of questions including routine procedures, complex problems, and problem-solving.	0 (0%)	0 (0%)	0 (0%)	98 (81.7%)	22 (18.3%)	4.18	0.389
MTB exercises and activities have an impact on students' cognitive abilities.	0 (0%)	0 (0%)	32 (26.7%)	65 (54.2%)	23 (19.2%)	3.93	0.676
Mean Score of Exercises and Activities in MTB						**4.17**	**High**

Indicator: SD: Strongly Disagree, D: Disagree, TS: Uncertain, A: Agree, SA: Strongly Agree

The perception level of Year 6 mathematics teachers towards the exercises and activities in the MTB is crucial to ensure that mathematics teachers can excellently conduct the teaching and learning process. The study's findings indicate that the overall perception level of teachers is high. From Table 6, it was found that the item "Exercises in MTB are varied, including questions with easy routine procedures, complex and problem-solving." has the highest percentage values on the agree and strongly agree scale (4=81.7%, 5=18.3%). Meanwhile, the item with the lowest percentage values on the agree and strongly agree scale is "Exercises in MTB focus only on the knowledge level." with a percentage value of 63.4%. Overall, the mean score for all the exercises and activities items in MTB is 4.17, which is interpreted as a high mean score level. This indicates that the perception level of Year 6 mathematics teachers towards the 2017 KSSR Revised Year 6 mathematics textbook is high.

The Graphics in the 2017 KSSR Revised Year 6 Mathematics Textbook (MTB)

Table 7 presents the findings of the descriptive analysis survey to identify the level of perception among Year 6 mathematics teachers regarding the graphics in the MTB.

Table 7
Frequency of Graphics in the Year 6 KSSR Mathematics Textbook (Revision)

Item	SD	D	TS	A	SA	Mean	Standard Deviation
Graphics in MTB make students interested in learning Mathematics.	0 (0%)	0 (0%)	23 (19.2%)	62 (51.7%)	43 (29.2%)	4.10	0.691
Graphics for topics and subtopics in MTB are attractive and creative.	0 (0%)	0 (0%)	27 (22.5%)	46 (38.3%)	47 (39.2%)	4.17	0.771
Graphics in MTB can stimulate students' minds.	0 (0%)	0 (0%)	22 (18.3%)	54 (45.0%)	44 (36.7%)	4.18	0.722
Students can understand MTB through graphic techniques well.	0 (0%)	0 (0%)	15 (12.5%)	73 (60.8%)	32 (26.7%)	4.14	0.612
Students can identify keywords in MTB through the structured page design.	0 (0%)	0 (0%)	23 (19.2%)	62 (51.7%)	35 (29.2%)	4.10	0.691
Concepts conveyed in MTB are discussed well from simple to complex.	0 (0%)	0 (0%)	21 (17.5%)	46 (38.3%)	53 (44.2%)	4.27	0.742
Concepts conveyed in MTB are discussed from concrete to abstract.	0 (0%)	0 (0%)	33 (27.5%)	48 (40.0%)	39 (32.5%)	4.35	0.657
The text in MTB is clear and systematic.	0 (0%)	0 (0%)	10 (8.3%)	78 (65.0%)	32 (26.7%)	4.18	0.565
The graphic items used are accurate and relevant.	0 (0%)	0 (0%)	23 (19.2%)	62 (51.7%)	35 (29.2%)	4.10	0.691
Graphics representing Bloom's Taxonomy in MTB are based on the revised version (Remembering, Understanding, Applying, Analyzing, Evaluating, Creating).	0 (0%)	0 (0%)	29 (24.2%)	69 (57.5%)	22 (18.3%)	3.94	0.652
MTB graphics have a connection between mathematical understanding and basic skills.	0 (0%)	1 (0.8%)	20 (16.7%)	74 (61.7%)	25 (20.8%)	4.03	0.641
MTB design attracts students' interest in using it.	0 (0%)	0 (0%)	10 (8.3%)	78 (65.0%)	32 (26.7%)	4.18	0.565
MTB page design follows current trends.	0 (0%)	0 (0%)	23 (19.2%)	40 (33.3%)	57 (47.5%)	4.28	0.769
MTB's graphic style is based on topics and subtopics.	0 (0%)	0 (0%)	21 (17.5%)	46 (38.3%)	53 (44.2%)	4.27	0.742

MTB's graphic style applies a positive attitude and skills in students.	0 (0%)	0 (0%)	12 (10.0%)	54 (45.0%)	54 (45.0%)	4.35	0.657
Mean Score of MTB Graphics						**4.18**	**High**

Indicator: STS: Strongly Disagree, TS: Disagree, TP: Uncertain, A: Agree, SA: Strongly Agree (number of responses).

The perception level of Year 6 mathematics teachers towards the graphic aspect of the MTB is crucial for ensuring that mathematics teachers can conduct the teaching and learning process excellently. The study's findings indicate that the overall perception level of teachers is high. From Table 7, it was found that the MTB graphics item "The graphic items used are accurate and relevant" and "The text in MTB is clear and systematic" have the highest percentage values on the agree and strongly agree scale (4=65%, 5=26.7%). Meanwhile, the item with the lowest percentage values on the agree and strongly agree scale is "Graphics for titles and subtitles in MTB are attractive and creative," with a percentage value of 77.5%. Overall, the mean score for all the graphics items in MTB is 4.18, which is interpreted as a high mean score level. This indicates that the perception level of Year 6 mathematics teachers towards the graphics in the 2017 KSSR Revised Year 6 mathematics textbook is high.

Discussion of the Study

Overall, the study results indicate that the perception level of Year 6 mathematics teachers towards the 2017 KSSR revised Year 6 mathematics textbook is high. The content aspect of MTB shows a positive perception level among Year 6 mathematics teachers. This finding aligns with studies by Al Tamimi (2018); Hong and Choi (2018); Yildiz (2016), agreeing that the content aspect is a crucial element to consider when assessing the quality of teaching and learning resources. Well-organized content helps teachers systematically arrange mathematical materials, facilitating both teachers and students in following a suitable learning sequence. The positive perception among Year 6 mathematics teachers proves that teachers believe the MTB content is according to the curriculum and aligns with the objectives of the Falsafah Pendidikan Kebangsaan (FPK). This study supports the findings of Tan et al. (2018), which found that the content of mathematics textbooks in Malaysia is under the curriculum and aligns with FPK. Moreover, a good textbook allows students to understand concepts easily. The majority of teachers agree that MTB can explain these concepts. Teachers agree that MTB content follows the Learning Standards (SP) and shows compatibility with the country's educational goals. This means the textbook content is organized by referring to the expected learning levels by the curriculum (KPM, 2021). Teachers who disagree that MTB contains elements of multi-level thinking skills may have different views on the type of questions and activities in the textbook. However, this element is crucial as it enables students to think critically, analyze, evaluate, and create, which are skills relevant to life and work in the modern era.

The exercises and activities aspect of MTB also scored high, indicating a positive perception level of Year 6 mathematics teachers towards the exercises and activities in the used mathematics textbook during the teaching and learning process. This finding is in line with the study by Son and Kim (2015) on the role of teachers in determining the exercises and activities to be given to students. Exercises and activities in MTB encompass various questions at different cognitive levels, which is essential to encourage critical thinking among students

because questions at higher cognitive levels require deeper thinking. This helps students develop critical thinking skills and understand concepts better (Abdul Azis et al., 2021). Questions at various levels help address routine and non-routine problems in learning. Students need to understand and apply their knowledge based on real situations.

Exercises and activities in MTB play a crucial role in strengthening students' understanding of mathematical concepts. Teachers who understand the importance of exercises and activities can plan to teach more effectively and ensure that students are actively involved in learning (Cheng et al., 2020). The findings indicate that exercises in MTB are varied, including questions with easy routine procedures, complex, and problem-solving. Different types of exercises allow students to master various skills and face challenges that match their ability levels. Although the item "Exercises in MTB focus only on the knowledge level" received a lower percentage value, this may be due to the teachers' different perceptions of what is considered "knowledge." Teachers need to ensure that exercises also cover understanding, analysis, and application aspects of concepts (Cheng et al. 2020). Overall, these findings assure that the 2017 KSSR revised Year 6 mathematics textbook is a good resource for teachers to use for student learning in mathematics.

Teachers also responded positively to the graphic elements, which scored high. The graphic aspect of MTB, covering titles and subtopics, has been well designed to stimulate their use by students. Graphics and illustrations are essential not only for stimulating students' interest but also for helping in understanding complex concepts and solving problem-solving questions. Visualization can reduce cognitive load because it uses the visual system to help in the representation, organization, and interpretation of text into visual images for long-term memory retention (Gates, 2018). Teachers with a high perception of graphics can understand the concepts conveyed through visuals more deeply. This allows them to teach more effectively and helps students better understand mathematical concepts. Furthermore, teachers who understand graphics well can use these images effectively in teaching. They can relate graphics to relevant mathematical concepts and illustrate the relationship between data and concepts. Visualization helps students easily understand abstract concepts, algorithms, and operations. Graphics can be depicted and visualized compared to static learning media such as text and images in textbooks. This is agreed upon by the findings of (Ngui et al., 2021).

Conclusion

This study assesses the perception level of primary school mathematics teachers towards the content, activities and exercises, and graphics in the 2017 KSSR revised Mathematics textbook. The findings show that Year 6 mathematics teachers have a high perception level of the textbook. This indicates that the textbook is suitable for the curriculum requirements, aligns with the National Education Philosophy (FPK) goals, and matches students' abilities. This study provides important inputs to those involved in the production of mathematics textbooks, such as authors, publishers, and the Ministry of Education. By understanding teachers' perceptions towards the textbook, they can produce higher quality, effective, and engaging textbooks to meet students' learning needs. Additionally, this study also benefits mathematics teachers who use textbooks as the primary teaching and learning resource. Knowing the strengths and weaknesses of the textbook, they can adapt and integrate other

suitable learning resource materials to enhance the quality of the teaching and learning process.

This study has limitations, such as a small sample size, limited study location, and focused study scope. Therefore, further research involving more respondents from various backgrounds and places is encouraged to obtain more comprehensive and generalizable findings. Further studies could also explore other aspects related to mathematics textbooks, such as design, illustrations, assessments, and technology integration. This would provide a more holistic view of the quality and effectiveness of primary school mathematics textbooks. Further studies involving qualitative design approaches are also recommended to gain a deeper and more comprehensive understanding of the quality and effectiveness of mathematics textbooks. Qualitative research emphasizing a deep understanding of perceptions offers a different approach compared to quantitative research. According to Creswell (2014), qualitative research allows researchers to explore and understand the meanings given by individuals or groups to a certain issue. This advantage makes qualitative research highly suitable for assessing subjective and contextual aspects of using mathematics textbooks.

The recognition of the significance of understanding teachers' perceptions towards mathematics textbooks in enhancing the overall quality of mathematics education is the motivation behind conducting this study. This investigation aims to determine the efficacy and suitability of the 2017 KSSR revised mathematics textbook by examining how teachers in primary school perceive it. Furthermore, this study aims to bridge the gap between theory and practice in mathematics education by providing valuable insights for textbook authors, publishers and policymakers within the Ministry of Education.

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