

Exploring Teachers' Perceptions of Primary School Mathematics Textbook

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Abstract

Mathematics textbooks are a critical resource during teaching and learning sessions in many classrooms. Therefore, the research sought to identify the Mathematics teachers' perception of the specific aspects of the selected Mathematics textbook: (i) usage level, (ii) content, (iii) activities and exercises, (iv) graphic style, and illustration. The data were collected through a questionnaire from a total of 35 primary school mathematics teachers who volunteered to be the research participants. Data were analyzed using descriptive analysis, and the results showed that the overall mean of mathematics teachers' perceptions is at a high level. This study may contribute to the development of a comprehensive textbook that capable of enhancing pupils' understanding and mastery of mathematics subjects.

Keywords: Survey, Mathematics Teachers, Teaching Material, Mathematics Textbook, Content Analysis

Introduction

The sophistication of technology today gives teachers, and students access to information from a variety of sources. The source of printed or electronic materials is effortless to obtain, and the content is best utilized. Diversifying resources requires the wisdom of teachers and students to select the resources in line with the curriculum objectives. Nevertheless, textbooks remain a significant source of teaching around the world (Glasnovic Gracin, 2018; Kul et al. 2018; Yang & Sianturi, 2017). Benavot and Jere (2016), Fan et al. (2013), and Pepin et al. (2013) stated that the use of mathematics textbooks covers the entire teaching and learning time up to 95%. Textbooks serve as a medium for the direction and purpose of a country's curriculum.

Textbooks are a significant source of teaching and learning for mathematics subjects since ancient times. The Elements wrote about 300 BC by a famous Mathematical figure, Euclid of Alexandria is said to be the most successful piece of work in the West (Merzbach & Boyer, 2011). Subsequently, according to Kangshen et al. (1999), The Nine Chapters on Mathematics Art, produced about 200-100 BC in ancient China, still serves as a source of teaching and learning up to 1600M not only in China but in neighboring countries. However, the study of mathematical textbooks has only overgrown in the last three decades (Fan, 2011). In Malaysia, the Ministry of Education is targeting pupils with the reasoning ability and ability to apply knowledge along the passage of time, which are more sophisticated and

technologically advanced (Ministry of Education Malaysia, 2013). In line with the goals enshrined in the First Edition of the Malaysian Education Development Plan 2013 to 2025, the production of textbooks needs to be reviewed to ensure that they are in line with the curriculum transformation that is being developed. The uniformity of textbook content with curriculum standards, namely the Curriculum and Assessment Standard Document (DSKP), should also be reviewed. However, there is an important aspect that is rarely given attention and studies regarding teachers' views of the textbook itself. This matter needs to be studied as teachers are the link between national education policy and students in realizing national education. Change in education is not possible if the curriculum materials provided are not aligned with the educational objectives documented (McDuffie et al., 2018). Teachers cannot convey knowledge effectively without the most up-to-date resources which coincide educational goals (Danışman, 2019). This study is important to gather important information so that future textbooks can play a role in helping the learning process to meet the Curriculum and Assessment Standard Document (DSKP) standards. Teachers help students understand content as well as guide students in completing activities and exercises with the right and concise strategies and steps. The role of teachers is so important that their views become a guide (Al Tamimi, 2018; Yang & Sianturi, 2017), especially in the development of a textbook design. Therefore, the aim of the study is to identify the level of use of primary school mathematics textbooks among mathematics teachers. Also, the researcher intends to obtain teachers' views on aspects of content, activities, and exercises as well as graphic style and illustration of the KSSR Mathematics Textbook.

Research Methodology

The study was conducted using a quantitative research approach. The survey method is used to provide teachers' perceptions of mathematics textbooks usage during classroom instruction.

Sample

The target population of the study was mathematics teachers who teach in primary schools in the Southwest District of Penang. Respondents were selected by simple random sampling. A total of 35 teachers were involved in this study, represented by 11 male teachers and 24 female teachers. Seventeen teachers are teaching staff in schools located in urban areas, while 18 teachers are teaching in rural areas.

Instrument and Procedures

The questionnaire instruments used were adaptations based on previous studies of Mahamod et al. (2016) and Davis et al. (2018). The instrument is divided into five sections. Section A contains seven items about the demographic information of the respondents, whereas there are 15 items in Section B, C, and D. Section B covers items on the KSSR Mathematics Textbook usage rate. Respondents can answer questions about the aspects of the textbook content in section C. Teachers' perceptions of the appropriateness of the exercises and activities provided in the textbook can be answered in section D. Finally, the graphical and illustrative aspects can be found in section E. The scale of the questionnaire instrument used was the Five Points Likert Scale. The choices given for Section B are Never, Rarely, Once, Frequent, and Very Frequent.

Meanwhile, for Sections C, D, and E, the options presented are Strongly Disagree, Disagree, Uncertain, Agree, and Strongly Agree. Percentage calculation is performed on all

items tested. Also, items were analyzed using the SPSS application to obtain mean values. The mean values obtained are categorized into three levels, namely low, medium, and high. Items were analyzed using the SPSS application to acquire mean values. The mean value at a low level is between 1.00 to 2.33. Whereas the mean values of 2.34 to 3.67 indicate the medium values and mean values above 3.67 to 5.00 are categorized as high (Landell, 1997).

Results

Based on the feedback received, the overall mean score of mathematics teacher's perception of the KSSR Mathematics Textbook (MT) is 3.79 (as shown in Table 1).

Table 1:

Mathematics teacher perceptions

Teacher Perceptions		Overall Mean
1.	Usage Level	3.64
2.	Content Aspect	4.03
3.	Exercises and Activities	3.65
4.	Graphic and Illustration	3.85
Total Mean		3.79

Many teachers showed agreement on aspects of content as well as graphic and illustration styles. In specific, the mean score of the use of the KSSR Mathematics textbook among primary school teachers level is 3.64. The result shows the MT has not been fully utilized during teaching and learning sessions. Meanwhile, the exercises and activities and graphics and illustrations give mean scores of 3.65 and 3.85, respectively. The highest mean score of 4.03, is given to the content of the MT.

The Usage Level

Table 2 shows the findings related to the frequency of teachers using MT during teaching and learning sessions. Item 1 accounted for the highest percentage of *frequent* and *very frequent* choices, at 82.9%. Teachers often use Mathematics textbooks in teaching and learning sessions. Item 7 with a 77.1% percentage, "I prefer to use Mathematics Textbooks than reference books." In addition, 77.1% was the percentage recorded for the frequent and most frequent use of the Mathematics Textbook for concepts explanation as well as exercise and activity selections. However, less integration occurred for Mathematics Textbooks with other subjects with a 68.5% for item 5 stating "I also use MT for other subjects". This finding shows that teachers have always made textbooks the primary source of mathematics classrooms. The results on teacher usage level can be found in Table 2.

Table 2

Usage level of MT

Statements	Never	Rarely	Once	Frequent	Very Frequent
I use MT in every teaching and learning sessions.	-	-	17.1 (6)	60.0 (21)	22.9 (8)
I use MT to explain the concept only.	5.7 (2)	5.7 (2)	28.6 (10)	51.4 (18)	8.6 (3)
I use MT to explain the related procedure.	-	2.9 (1)	25.7 (9)	48.6 (17)	22.9 (8)
I use MT only for exercises and activities.	2.9 (1)	5.7 (2)	20.0 (7)	48.6 (17)	22.9 (8)
I also use MT for other subjects.	37.1 (13)	31.4 (11)	5.7 (2)	22.9 (8)	2.9 (1)
I use MT for every skill that students need to understand.	2.9 (1)	-	31.4 (11)	48.6 (17)	17.1 (6)
I prefer to use Mathematics textbooks than reference books.	2.9 (1)	-	20.0 (7)	65.7 (23)	11.4 (4)
The use of MT further motivates students to learn.	2.9 (1)	-	34.3 (12)	51.4 (18)	11.4 (4)
The use of MT improves students' understanding of concepts.	2.9 (1)	-	22.9 (8)	62.9 (22)	11.4 (4)
The use of MT improves students' skills in problem-solving strategies.	2.9 (1)	-	28.5 (10)	62.9 (22)	5.7 (2)
The use of MT can enhance students' thinking.	2.9 (1)	-	31.4 (11)	54.3 (19)	11.4 (4)
The use of MT exposes students to the element of High Order Thinking Skills.	2.9 (1)	5.7 (2)	25.7 (9)	57.1 (20)	8.6 (3)
The use of MT can enhance students' skills in solving routine and non-routine problems.	-	2.9 (1)	22.9 (8)	60.0 (21)	14.3 (5)
The role of administrators is important in the use of MT.	2.9 (1)	11.4 (4)	37.1 (13)	45.7 (16)	2.9 (1)
The use of MT imposes value on students.	-	5.7 (2)	22.9 (8)	62.9 (22)	8.6 (3)

In percentage (number)

Content

The content aspects of the Mathematics textbook are evaluated through 15 analyzed items. Overall, teachers agreed with the content of primary school Mathematics textbooks with a 100% percent of the statement "MT content is in line with Syllabus (SP)". A total of 97.1% of teachers agreed with the compatibility of the content in Mathematics textbooks with the *Huraian Sukatan Pelajaran* (HSP). Items 12 to 15 are related to the elements of thinking skills implemented in the Mathematics Textbook. The teachers agreed on the integration, with the

percentage recorded between 68.5% and 85.6% of the items. Table 3 shows more information for reference.

Table 3

Content of MT

Statements	SD	D	U	A	SA
MT contains all the basics that students need to learn.	-	-	11.4 (4)	65.7 (23)	22.9 (8)
The content of MT is in line with the Syllabus (SP).	-	-	-	65.7 (23)	34.3 (12)
MT content is in accordance with the Huraian Sukatan Pelajaran (HSP).	-	-	2.9 (1)	62.8 (22)	34.3 (12)
MT content is designed based on SP and HSP needs.	-	-	5.7 (2)	60.0 (21)	34.3 (12)
The content of BTM is in line with the National Philosophy of Education (FPK).	-	-	5.7 (2)	62.8 (22)	31.5 (11)
MT content is comprehensive and in line with the objectives and learning outcomes of MT Content in HSP.	-	-	5.7 (2)	77.1 (27)	17.1 (6)
MT content incorporates elements of value-added (creativity and innovation, entrepreneurship and information and communication technologies).	-	2.9 (1)	17.1 (6)	62.9 (22)	17.1 (6)
MT content integrates skills and values.	-	11.4 (4)	8.6 (3)	62.9 (22)	17.1 (6)
MT explains the concept precisely.	-	-	5.7 (2)	71.4 (25)	22.9 (8)
Students can master the skills of identifying numbers using MT.	2.9 (1)	5.7 (2)	17.1 (6)	57.1 (20)	17.1 (6)
Students can master the skills of applying basic operations using MT.	2.9 (1)	5.7 (2)	14.3 (5)	62.8 (22)	14.3 (5)
Students can master problem-solving skills using MT.	2.9 (1)	5.7 (2)	22.9 (8)	51.4 (18)	17.1 (6)
MT contains elements of multi-level thinking skills.	2.9 (1)	2.9 (1)	8.6 (3)	68.5 (24)	17.1 (6)
MT contains elements of High Order Thinking Skills.	2.9 (1)	5.7 (2)	17.1 (6)	54.3 (19)	20.0 (7)
MT contains elements that stimulate thinking and challenge students' minds.	2.9 (1)	5.7 (2)	8.6 (3)	62.8 (22)	20.0 (7)

Indicators: SD: Strongly Disagree, D: Disagree, U: Uncertain, S: Agree, SA: Strongly Agree in percentage (number).

Exercises and Activities

Teachers' perceptions of the exercises and activities aspects of the Mathematics Textbook can be determined by the analysis conducted on the 15 items in this category. 74.3% voted as *agree*, and 14.3% voted as *strongly agree* of the statement in item 2, "MT uses clear and

understandable instructions and questions". Primary school teachers also agreed that the exercises and activities included in the textbooks were in line with the learning objectives contained in the *Huraian Sukatan Pelajaran* (HSP) through the percentages recorded for both *agree* and *strongly agree* of 80%.

In addition, teachers also agree that the exercises and activities provided cover various aspects as well as fulfill students' knowledge level. The percentages recorded for these items through *agree* and *strongly agree* with 74.3% and 5.7%, respectively. However, teachers do not agree with the statement, "Exercises in MT are focusing on a level of knowledge only". Among all the teachers, 2.9% of them firmly disagree, 31.4% have *disagreed*, while 25.7% are *uncertain*. Similarly, item 11 that states, "Exercises in MT require only numerical answers". This can be seen in the feedback given that 8.6% of the respondent *strongly disagrees*, 25.7% *disagree* whereas 20% of the overall teachers voted *uncertainly*. Table 4 shows the results of the exercises and activities aspects.

Table 4

Exercises and activities of MT

Statements	SD	D	U	A	SA
The exercises and activities in MT are corresponding with students' cognitive levels.	5.7 (2)	8.6 (3)	17.1 (6)	57.1 (20)	11.4 (4)
MT uses clear, easy-to-understand instructions and questions.	2.9 (1)	5.7 (2)	2.9 (1)	74.3 (26)	14.3 (5)
MT uses student-centered instruction and questions.	2.9 (1)	2.9 (1)	25.7 (9)	60.0 (21)	8.6 (3)
The exercises and activities in MT contain elements of High Order Thinking Skills.	2.9 (1)	2.9 (1)	17.1 (6)	60.0 (21)	17.1 (6)
The exercises and activities in MT are in line with the learning objectives of the HSP based on the student's level of ability.	2.9 (1)	2.9 (1)	14.3 (5)	71.4 (25)	8.6 (3)
Students can be actively involved whether in individual, partner and group activities.	2.9 (1)	8.6 (3)	17.1 (6)	51.4 (18)	20.0 (7)
Students can complete exercises and activities in MT during the learning session.	2.9 (1)	8.6 (3)	14.3 (5)	71.4 (25)	2.9 (1)
The exercises and activities in MT motivate students to learn.	2.9 (1)	8.6 (3)	14.3 (5)	71.4 (25)	2.9 (1)
The exercises and activities contained in MT cover aspects of assessment, reinforcement, and enrichment.	2.9 (1)	8.6 (3)	8.6 (3)	71.4 (25)	8.6 (3)
Exercises or assessment in MT is following the student's level of knowledge.	2.9 (1)	5 14.3	2.9 (1)	74.3 (26)	5.7 (2)
Exercises in MT are focused on the level of knowledge only.	2.9 (1)	31.4 (11)	25.7 (9)	34.3 (12)	5.7 (2)
Exercises in MT requires only numerical answers.	8.6 (3)	25.7 (9)	20.0 (7)	40.0 (14)	5.7 (2)
Exercises in MT requires students to solve problems.	2.9 (1)	5.7 (2)	17.1 (6)	62.9 (22)	11.4 (4)
Exercises in MT are varied which include questions with simple, complex and problem-solving routine procedures.	2.9 (1)	-	8.6 (3)	82.9 (29)	5.7 (2)
The exercises and activities in MT impact the reasoning ability of the student.	2.9 (1)	8.6 (3)	17.1 (6)	68.6 (24)	2.9 (1)

Indicators: SD: Strongly Disagree, D: Disagree, U: Uncertain, S: Agree, SA: Strongly Agree in percentage (number).

Graphics and illustrations

Overall as shown in Table 5, teachers reacted positively to this aspect through the findings. Item 14 which states "Graphics style and illustration in MT, is based on title and subtitle" recorded the highest percentage of 91.4% representing 74.3% response *agree* and 17.1% choosing *strongly agree*. 74.3% responded *agree* while 11.4% chose *strongly agree* on the answer to the statement, "The concept delivered in MT is nicely arranged from concrete to abstract".

Table 5

Graphics and illustration

Statements	D	U	A	SA
Graphics and illustrations in MT make students interested in learning Mathematics.	2.9 (1)	17.1 (6)	74.3 (26)	5.7 (2)
The graphics and illustrations for a title and sub-title in MT are interesting and creative.	5.7 (2)	14.3 (5)	74.3 (26)	5.7 (2)
Graphics and illustrations in MT can stimulate student's minds.	5.7 (2)	11.4 (4)	74.3 (26)	8.6 (3)
Students can understand MT through a proper graphic, illustration and text techniques.	2.9 (1)	17.1 (6)	74.3 (26)	5.7 (2)
Students can identify key points in MT through structured page design.	5.7 (2)	20.0 (7)	68.6 (24)	5.7 (2)
The concept delivered in MT is nicely arranged from simple to complex.	11.4 (4)	5.7 (2)	65.7 (23)	17.1 (6)
The concept delivered in MT is nicely arranged from concrete to abstract.	4 (1)	2.9 (1)	74.3 (26)	11.4 (4)
The text is clear and systematic.	5.7 (2)	11.4 (4)	62.9 (22)	20 (7)
The graphic items used are precise and relevant.	5.7 (2)	11.4 (4)	65.7 (23)	17.1 (6)
The material presented in MT is based on the Bloom Hierarchy of knowledge, understanding, application and analysis, synthesis and evaluation.	8.6 (3)	14.3 (5)	68.6 (24)	8.6 (3)
MT materials have continuity between knowledge and basic mathematics skills.	8.6 (3)	5.7 (2)	77.1 (27)	8.6 (3)
The MT design attracts students to use it.	8.6 (3)	17.1 (6)	68.6 (24)	5.7 (2)
MT page design according to the latest trends.	8.6 (3)	17.1 (6)	62.9 (22)	11.4 (4)
Graphic style and illustration in MT are based on title and subtitle.	5.7 (2)	2.9 (1)	74.3 (26)	17.1 (6)
Graphic and illustration styles in MT also inculcate positive attitudes and values.	2.9 (1)	8.6 (3)	82.9 (29)	5.7 (2)

Indicators: SD: Strongly Disagree, D: Disagree, U: Uncertain, S: Agree, SA: Strongly Agree in percentage (number).

For the statement, "MT materials have continuity between knowledge and basic mathematics skills" the percentage recorded for the response of *agreeing* was 77.1% and *strongly agreed* was 8.6%. Teachers also agreed that the way of graphical items in MT is trendy and presented in a clear, systematic and relevant manner as noted in items 8, 9 and 13. Similarly goes to item 12 which stated: "BTM page design of students is interesting to use". Only a few teachers chose a *disagree* (8.6%) and *uncertain* (17.1%) response to the item. Table 5 illustrates the results of the graphic and illustrations aspects.

Discussion

The results show the perception of mathematics teachers on the KSSR Mathematics Textbook in schools in the Southwest district of Penang. Teachers' perceptions of content and graphics and illustrations aspects are at a high level compared to teachers' perceptions of the usage levels and exercises and activities aspects which are at a moderate level. The study found that teachers gave a positive perception of the KSSR MT. The content aspects of the MT along with the exercises and activities provided in the textbook are said to contribute to students' mastery of the concepts, procedural skills, and problem-solving ability. These findings in line with Al Tamimi's (2018) study; Hong and Choi (2018); Jones et al. (2015) and Yildiz's (2016) research.

Usage Level

The results showed that teachers use the KSSR Mathematics Textbook during the teaching and learning sessions in which evidenced by a high percentage value of 82.9% for items stating, "I use MT in every teaching and learning session" and "I prefer to use MT than a reference book" with a score of 77.1%. This finding is in line with the results of the study of Jasmi et al. (2011) in which teachers utilized textbooks as a teaching resource in the classroom. However, most teachers have never used MT for other subjects. In fact, 37.1% of the participants chose *never*, and 31.4% responded *rarely*. In regard, the integration of science and mathematics subjects creates a more interactive learning environment while fostering thinking skills among students (Kim & Bolger 2016). Based on the findings, teachers preferred to use the MT in explaining the mathematics procedure, which is indicated by *frequent* and *very frequent* responses of 48.6% and 22.9%, respectively.

In addition, teachers also utilized the exercises and activities as contained in the book by choosing the *frequent* (48.6%) and *very frequent* (22.9%) answers. The result is in line with Son and Kim's (2015) findings on the role of teachers in deciding exercises and activities to provide to the students. For item 6, "I use MT for every skill that students need to understand" accounted for 48.6% for *frequent* and 17.1% for *very frequent* responses. Teachers also used Mathematics Textbooks to improve student understanding of concepts, with 62.9% of all teachers responding *frequent* and 11.4% choosing *very frequent* responses meanwhile students' skills in problem-solving strategies with 62.9% giving *frequent* and 5.7% choosing a *very frequent* category.

Content

The total mean of the item in terms of content was 4.03. Content aspects are an important element to note in assessing the quality of a book. In the context of textbooks, standard content should be included depending on the curriculum standards that have been documented. A positive agreement of 97.1% was noted among mathematics teachers proving that the teachers recognized the contents of the KSSR MT is under the syllabus and be in accord with the National Education Philosophy objectives. Besides, good textbooks give students an opportunity to understand concepts easily. 84.3% of teachers agreed that Mathematics textbooks could explain the concept. This finding contrasts with the study of Peters and Abdullah (2017). Students' difficulty in gaining an understanding of the concept diminishes their interest in learning.

The KSSR MT is found to integrate elements of Higher Order Thinking Skills such as the national curriculum aspirations documented in the Curriculum and Assessment Standard Documents (*Dokumen Standard Kurikulum dan Pentaksiran*). The evidence was based on

feedback received wherein 85.6% of teachers agreed that the KSSR Mathematics Textbook contained elements of thinking across a range of levels, while 82.8% of teachers gave positive approval for content-related items that stimulated thinking and challenged students' minds while 74.3% voted *agree* and *strongly agree* on items involving Higher Order Thinking Skills. These integrations aim to produce highly competent people who are capable of competing along with the sophistication of technology that is rapidly growing. Malaysia is one of the countries that does not want to be left behind with the rapid development of revolutionary technology. As such, education has become a medium to build a high-skilled future generation without compromising on value integration.

Exercise and Activity

The exercise and activity aspects recorded the total mean of 3.65. This outcome indicates the teacher's agreement on the exercises and activities aspects of the KSSR Mathematics Textbook. The exercises and activities contained in the MT cover a variety of questions at different cognitive levels. This result is in contrast to the findings of Alkhateeb's (2019) study towards Jordanian textbook content that provided a little stimulus for the development of student thinking. Questions and activities mostly require only procedural knowledge and concepts.

Students' problem-solving skills need to be nurtured to produce a competent future generation with high cognitive ability. Studies conducted on Form Two students in Terengganu shows that the ability of students to solve problems at the secondary level is only at a moderate level (Ngah & Zakaria, 2016). The issue can be handled through the function of the textbook as the primary source of content that provides problem-solving questions from a low level.

Based on the results, 82.9% of the total number of teachers chose to *agree*, and 5.7% *strongly agree* with item 14, which stated, "Exercises in MT are varied, which include questions with simple, complex and problem-solving routine procedures". Teachers also expressed favorable agreement with the statement of "Exercises and activities in MT are in line with the learning objectives in the HSP based on student achievement level" with a score of 80%. This result indicates that the Textbook Division has begun to emphasize these skills in line with the educational goals in Malaysia. The exercises and activities provided in the classroom determine the effectiveness of problem-solving skills among students. Students who are exposed to such questions often face no problems when confronted with real situations (Hong & Choi, 2018; Lessani et al., 2014; Wang & Yang, 2016). The positive agreement was also obtained for items related to the use of clear, easy-to-understand instructions. The activities included are concur with the objectives of the curriculum, which is more student-centered. The findings show that there have been improvements made in previous studies.

Graphic and Illustrations

Graphic and illustration aspects are significant elements that need to be studied not only to stimulate student interest but also to help in understanding complex concepts and solving questions, particularly problem-solving questions. Mathematics Textbooks typically use less relevant graphic materials, not helpful in mathematical learning, and are often loaded as decoration (Cooper et al. 2018). This result is contrary to the function of the visual material in the actual context. Visualization can reduce the burden of thinking by using visual systems

that assist in the representation, arrangement, and interpretation of texts to visual images to maintain long-term memory (Clark et al. 2006; Gates, 2018; and Robinson, 2002).

Writers, designers, and illustrators of a textbook can apply non-fiction graphics in Mathematics Textbooks to maintain the true meaning of what they want to convey. It does not alter any meaning of the original content but instead works to provide students with an understanding of specific facts graphically (Kersten-Parrish & Dallacqua, 2018). The application of graphic elements can impact teaching and learning. The study conducted by Zulnaldi et al. (2020) to Form 2 students in Riau, Indonesia, using GeoGebra software demonstrates graphics and illustration approach gave impact to student achievement. Students are more likely to master concepts and procedures for function chapter when being represented in visual and graph. The usage of the software also stimulates active interaction between students as well as between teachers and students.

Apart from that, the Pictologics method is a method of teaching language through artistic images that can also be practiced as an initiative to improve student achievement. The technique used also has a positive impact on primary school children, especially in critical thinking skills (Sasi, 2018). This finding is also in line with Yang's (2018) finding that states appropriate use of images influenced students' performance based on their study of comparisons of Finnish and Taiwanese textbooks.

In this regard, teachers' perceptions are also examined based on the graphic and illustrations aspects of the KSSR Mathematics Textbook. Based on the findings, teachers responded positively to the visual and illustrations elements with high mean values. It shows graphic and illustrations aspects of the mathematical textbook that cover headings and sub-topics and are well-crafted to stimulate students' use of it.

Yusof and Daimin's (2016) study, which serves as a benchmark on graphic and illustrations aspects of the textbook, is an attempt to standardize the graphic elements used in textbooks in Malaysia. The standard design and quality of the textbook will give a new identity to the visual component of the textbook. The results of the study show that the graphic and illustration style is significant with the textbook content and relevant to current trends. The graphical style gives an important impression of the textbook examination. Based on the findings, improvements to the graphics and illustrations aspects can be made to meet Bloom's level of knowledge in which necessary in enhancing critical thinking.

Literature studies that show in-depth examination of textbooks, especially on Mathematics subject, are rarely conducted in Malaysia. Initiatives can be undertaken by researchers to study the contents of textbooks holistically based on grade levels. Future researchers may also extend this study to teacher perceptions on a larger scale or select other locations to identify teachers' perceptions so that the findings can be generalized. The results of this study can eventually assist efforts in improving the development of the textbook itself.

Conclusions and Implications

Generally, the teacher's perception of the Mathematics textbook is at a high level. Mathematics teachers acknowledge the latest published textbooks meet the curriculum content they want. The content aspect of the textbook needs to be kept up-to-date with the development of technology for the education system in Malaysia is comparable with other developed countries. Also, aspects of exercises and activities need to be integrated with the elements of High Order Thinking Skills as an effort to enhance students' abilities. The researcher considers the study to be relevant as the textbook is the primary source of reference for teachers and students. For further study, future researchers may also extend

this study to a larger scale of participants as well as different locations so that the findings can be generalized. Moreover, researchers may explore the contents of textbooks holistically as this element is one of the determinants of the quality of a textbook.

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