

INTERPRETATION OF DESIGN ART IN MATHEMATICAL TEXT BOOKS YEAR ONE SPECIAL EDUCATION IN PRIMARY SCHOOL

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Abstract:

This paper presents the design interpretation of the first year mathematics textbook published by the Ministry of Education Malaysia (MOE) among special education teachers in primary schools through the model of Ornstein & Hunkins (1998). The research design was based on a survey method to obtain data related to the interpretation of the design of mathematics textbooks in year one among special education teachers in primary schools. The textbook design in this paper is about the interpretation of text design and illustration on the ability and sincerity of teachers and students in applying the use of this textbook during learning activities conducted through the Special Education Primary School Standard Document (DSKPPK) revision year one 2017. Implications of the study this is able to help publishers and illustrators in making improvements to the quality of this textbook and indirectly can facilitate the understanding of teachers in handling learning activities with students with special learning needs.

Keywords: Interpretation, Design Art, First Year Mathematics Textbook, Special Education Integration Program (PPKI).

1. Introduction

School teaching and learning activities often use textbooks as one of the important media to ensure that students master the field of knowledge in line with the reference of the "Primary School Curriculum Standard Document", especially in the field of special education in primary schools. According to Aziz Omar (2017), textbooks are the main material in teaching, which can be facilitated according to each topic studied, and can be used as a reference for the problems faced when making the exercises included in each research topic. This was supported by Zamri Mahamod 2017, who stated that textbooks are one of the important teaching materials and are often used by school teachers.

Through the use of this textbook, the author came into contact with two design elements, namely text design elements and illustration elements. These two elements are very important to convey the content of the curriculum in the Malaysian Ministry of Education (MOE) elementary school textbooks. The teacher teaches according to the understanding and intention in the illustrations and texts. Attractive illustrations and text can convey course content and make teaching and learning (PdP) in the classroom more effective. In the publication of KPM textbooks, the content text of a lesson is produced by the author. The illustrations are also drawn by illustrators. Therefore, the text and illustrations in the textbooks of the Ministry of Education must be relevant, clear, and able to convey the content of the course, so that teachers can easily interpret students as a guide. According to Abdul Rahman (2016), textbooks are one of the important PdP materials in the classroom. The KPM Educational Resources and Technology Department (2019) explained that the textbooks are written according to the curriculum requirements. The course document (DSKP) explains the goals, content organization, and strategy of PdP. In KPM textbooks, the illustrations provided must be appropriate, easy to understand, and relevant to the text. Book publishers provide a wide range of illustrations with interesting features that help convey the content of the course.

In addition, textbooks also provide guidelines or syllabi for each topic that needs to be taught while, for students, textbooks are used as a basic reading source for a subject in line with other reference books (Kamarulzaman Abdul Ghani 2015). In Malaysia, there is no denying that textbooks are one of the main materials for interpreting the philosophy, goals, objectives and principles of the education curriculum. This means that a quality textbook can not only determine the development of knowledge, but can help build the personality and spiritual development of students in line with the goals of the National Education Philosophy Policy which is to form themselves in intellectual and spiritual aspects (KPM 2016).

Therefore, the English proverb says A Picture is Worth Thousand Words which means illustrations can be interpreted with various meanings. However, the interpretation of textbook design must not be confusing and accurate so that the text content can be translated according to the curriculum and teachers can apply the content and content in the textbook comprehensively, easily and can attract students while following the teaching and learning process during the classroom.

2. Background research

Education at the global level clearly explains that effective learning is sourced from the use of teaching aids that are effective and able to motivate its users. In the West, the use of teaching aids is very necessary in further improving the mastery of teachers' pedagogy in the classroom (Noor Aini, 2018). Moreover, in the East in the study of Kusuma and Tisha Devi (2017) clearly explained that the use of text and exercises in art textbooks often play an important role in providing understanding and knowledge of art to teachers to understand its content with quality because teachers are the main source of learning to student. This is supported by Fawzia Al Seyabi et al (2016) by saying that textbooks are a very important medium in helping students master the skills that need to be mastered by them such as skills

in English. Not only that, through the study of Southeast Asia, in Indonesia, some teachers rely on the use of textbooks in their teaching (Aisyah Sjahrony et al, 2017). From the Asian point of view, education in Malaysia on the KSSRPK curriculum for learning problems is an alternative curriculum that is specially prepared based on the Primary School Standard Curriculum (KSSR). KSSRPK learning problems are formed in line with the National Education Philosophy based on the principles of integrated approach, holistic individual development, equal opportunities and quality of education for all students as well as lifelong education (MOE, 2010). According to KPM (2010) again, the implementation of KSSRPK Learning Problems is holistic, not too academic and does not burden students.

In line with the transformation of the 2017 KSSR revised curriculum, KPM in the context of education in Malaysia still prioritizes textbooks because through textbooks, teachers will obtain facts and information as aspirations through graphic management and training effectively and according to the level of students in teacher learning because teachers are the key as a motivator in imparting knowledge to students (Syaifur Rochman, 2013). Furthermore, according to Abdul Rahman (2016) in KPM textbooks, the interpretation of textbook design through aspects of text design and illustration must facilitate teachers to interpret to students according to the level, ability and mastery of students, especially special education students with year one learning problems. This is because the design of textbooks provided by book publishers is in a variety of variations according to current trends.

Furthermore, the interpretation of the illustration is a visual support to the content text created by the illustrator (Abdul Rahman, 2016). Meanwhile, the text is a translation from the Curriculum Document of a subject produced by the author (Lau Shiau Ching et al, 2021). The artistic interpretation of this textbook is not only conveyed with text but can also be through illustrations. Based on the researcher's observation, it was found that the special education textbooks for year one mathematics learning problems have many illustrations compared to the text. According to Abdul Rahman (2016), Illustrations and text in textbooks are interrelated to convey lesson content. Illustrations in a quality textbook must be able to convey the content of the lesson other than the text. This means that the use of teaching aids in teaching and learning activities of teachers is very important and is always used as a practice in the classroom. Textbooks are the most synonymous source of teaching aids and are not unfamiliar to teachers throughout their learning.

Therefore, information on the interpretation of mathematics textbook design of learning problems should be given good attention. Therefore, research needs to be implemented to ensure that these teachers can use mathematics textbooks of learning problems during their learning activities with high quality and motivation.

3. Literature Review

The subject of mathematics is one of the subjects related to numbers or numbers. This means, mathematics is a process to the skills of calculating and adapting mathematics in our daily lives. According to Vijayaletcmy Muniyandy (2017), mathematics textbooks are commonly

associated with learning methods of solving operations and writing sentences in mathematics. However, a good textbook is to have a quality textbook art arrangement and make it easy for teachers to use it (Qhairunnisa, 2015). Based on that statement, the textbook art in question is the art of text design and illustration. Illustrations have been a tool of storytelling in manuscripts and books since time immemorial. Illustrations are not like paintings, illustrations typically provide information that works, always having a reason to produce it. According to Abdul Rahman (2016), visual illustrations have long been used in school textbooks in various subjects in all school levels and grades to facilitate learning. This statement is also supported by Dian (2018) saying that the difficult concept of illustration in textbooks makes interpretation possible in various meanings. Diverse interpretations can create conflicts in the preparation of illustrations and layouts in textbooks. The following is table 1.0 on the types of illustrations in mathematics textbooks of special education learning problems in primary schools.

Interpretation of types of illustrations in special education mathematics textbooks of primary school learning problems						
Year	Pupils	Illustrat or	Analysis Based on the Ornstein & Hunkins Model (1998).	Coincidin g With Each Other	Differen t Finding s	Irreleva nt
Year 1	Painting s and drawing s	Pictures and semi -cartoons	Input in the textbook helps to improve students 'comprehension well	Painting	Stopper and figure	nothing

Table 1.0 : Interpretation of types of illustrations.

Based on the table has explained about the types of illustrations found in special education mathematics textbooks of year one learning problems. This means, the illustrations found in the textbook are associated with pictures and animations that can help teachers to convey the requirements of filling in the textbook to students more clearly and with quality. In addition, there are also a variety of illustrative features that have been presented by several researchers. According to D. Raghavan (1988) states, most of the illustrations produced in school textbooks have features such as printed or unprinted line drawings. The view is also supported by Qhairunnisa (2015) by saying that the lines made are fine lines, open lines, reverse lines, colored lines and others. These lines are made using various media such as Indian ink, pens, brushes and others.

In addition, according to Fawzia Al Seyabi et. al (2020) have stated that visual presentation especially illustration must be clear and easy to interpret with its functions that are clear to the reader especially the teacher. Levin (1981) has identified eight functions of illustration namely; (i) decoration; serves as a decoration to images that have nothing to do with text. (ii)

remuneration; serves to make suggestions to the text, (iii) motivation; serves to stimulate the reader's interest, (iv) reiteration; serves to repeat certain visuals for reinforcement and as icons, (v) representation; serves to convey the meaning of the text, (vi) organization; is a composition to complete the text, (vii) interpretation; interpret the meaning of the text, (vii) transformation; creativity of visual presentation other than text (Abdul Rahman (2016). In the book Quality Control of Textbook Certification, KPM (2013) has made a stipulation, illustrations must meet the content of the subject and function in terms of; (i) convey text content (ii) helps to understand the text (iii) strengthens comprehension of the text (iv) completes the text and (v) provides additional information. Some researchers have stated that illustrations serve to convey lesson content, teachers and students can understand illustrations but it also looks at how the illustrations can be interpreted in textbooks as well as how teachers and students use illustrations in understanding the content of a subject (Dian, 2018). The following is table 2.0 on the interpretation of design principles in special education mathematics textbooks of year one learning problems.

Table 2.0: Interpretation of mathematical textbook design principles

Interpretation of design principles in the publication of special education mathematics textbooks of primary school learning problems.						
Year	Pupils	Illustrator	Analysis Based on the Ornstein & Hunkins (1998).	Coexisting With Each Other	Different Findings	Irrelevant
Year 1	Liked a text design for those who can't recognize numbers and mathematical symbols	Selection and layout of text, numbers, and symbols	Layout presentation of illustration over text Prefers selection and appearance of illustrations Diversify the size and perspective proportion between illustration and text arrangements Balance the use of space, and proportion Influence of color Design principles such as; balance, proportion, sequence, simple, unity and contrast Eye lounge	Layout, Eye lounge The priority of illustration selection over text	<ul style="list-style-type: none"> ➤ Influence of color. ➤ Design principles such as; balance, proportion, sequence, simple, unity and contrast. 	nothing

Based on the table, it is explain about the design art found in the textbooks which are the main aspects of conveying the book content of a subject. The text is produced by the author with the help of the editor. The main aspect of the textbook content that the authors should pay attention to is the presentation of the essence and desire of the curriculum through constructed materials (Ninuk Lustyantje & Evi Rosyani Dewi, 2020). Text content in a textbook refers to content to be delivered through various types of text, activities, exercises and illustrations. This has been supported by, Selvarajah (2015) also stated that good text is capable of acting as an interesting information transfer media and has meaningful characteristics. Therefore, the textbook used must correspond to the daily life of the pupil. Textbooks will help students draw conclusions and conclusions and be able to answer questions related to textbook design. The accuracy of the selection of graphic material is also necessary to add to the content of the topic or subject. Furthermore, According to Hilligoss & Howard (2002), the text also describes visual images must contain elements such as headers, labels, caps or bending for informational illumination must be associated and serve to convey visual images. Noble & Bestley (2005) states the text is more referring to the words printed on the pages of a book. It is the work of arranging letters that covers activities and things involving traditional publishing. Noble & Bestley (2005) explains again that author writing should influence text. The text itself must maintain "openness" and help to encourage ideas and be able to create visual objects.

In addition, Chew and Sivabalan (2019) in their study there touched that the interpretation of textbook implementation is covering aspects of the teacher's ability to master important titles in textbooks first before being translated in the form of teaching and learning in classrooms. This means that teachers need to first adapt and master the topics in the textbook content to become a student as they refer. Dias and Kesumawati (2016) studied the interpretation of quantum learning-based textbooks in Indonesian schools. It shows that the interpretation is 93.05 percent. The study found a high interpretation of the textbooks for use in the PdP process in schools. Among the categories that make textbooks suitable and suitable for use are those textbooks that are able to attract interest in using them, are able to motivate students, contain interesting illustrations to use, have an easy-to-read arrangement of letters, are consistent in the use of letters making users comfortable reading and have regular references in line with the content arrangement.

This was supported by Ornstein and Hunkins (1998) suggesting that a good textbook needed to help the PdP process must be simple to use, logical, consolidating information, updated, accurate and not biased on anything. Textbooks to be used must have an interpretation of text design and illustrations that can help teachers apply the use of textbooks in the classroom well and effectively. This is because a textbook needs to be examined by experts and educators who are skilled. The basic knowledge and level of interpretation of textbooks must be based on the development of the target group that will use it especially to teachers.

In conclusion, the interpretation of textbook design art is a very important thing by teachers in ensuring the results of teacher teaching and learning efforts can be carried out according to the desired will in the Low School Curriculum Standard Document (DSKP) because

textbooks are seen as the backbone in PdP in classrooms especially at the low education level (Thotapally Anjaneyulu, 2014).

4. Problem Statement

Currently, there are various books on the market. The publication of this book is like mushrooms growing after a rain that we are confused which book is best to use as a textbook. According to Lau Shiau Ching et al (2021) before a textbook is distributed to the market or to schools, this textbook has to go through four stages of evaluation and fulfill the characteristics of a good textbook based on (i) content conforming to the syllabus and description of the syllabus, (ii) the correct and simple language, (iii) the appropriate graphic and interested in the students to use textbooks, as well as (iv) activities and training in accordance with the students' skill level.

Among the efforts towards this goal is through the use of textbooks where teachers are the basis of facilitating interpreting textbooks to students in the classroom. The moE's study on design art in the MOE's special education mathematics textbooks has not received special attention and detail in terms of text design and illustration by the publication of textbook packages. There are several studies that have been conducted on the study of the use of textbooks among teachers. Zuri and Aznan's study (2017) clearly states that learning actually requires interpretation of textbook criteria that can stimulate interest and motivation for them to learn and continue to learn even when they are at home using the textbook. Among the advantages of visual stimulation it is also necessary for the memory skills of the student. In addition, Nur Atiqah, Dayang Hartijah and Jayakaran's (2014) study of english textbooks in Malaysia found teachers need to explore appropriate textbook texts and illustrations in addition to looking at interesting pictures and arranging in textbooks in order to stimulate student learning. Through the point of education, the provision of concept maps in books was found to increase the acceptance of school students about a subject. This is true for history subjects (Zahara & Nurliah 2009). In the context of typical education, textbooks are one of the main sources and reference materials of teacher teaching to students in improving the mastery and science of teachers and students (Rustam Bin Siis, 2018).

Not only that, the studies that have been done on illustrations are about cartoon images on general subjects by Muliyadi (2012). This study examined the development of style and criticism of Malay cartoon jokes. Saedah Siraj (1990) studied gender bias illustrations in the MOE textbooks. His study looked at how male illustrative dominance outweighs female illustrations. Other studies on illustrations are in language subjects (Chua Hong Tam & Khuan Wai Bing, 2006) Science and Mathematics (Khuan Wai Bing, 2006) and Mathematics (Norlemi Amir, 2007). These studies show the role of illustrations in being a medium in the delivery of subject content.

In the textbook Mathematics learning problem year one, there are interesting issues and can be discussed as well as made improvements in terms of the art of illustration and text design. There is one problem that has been identified: the weakness of teachers in understanding

students to identify the concept of numbers to be conveyed is guided to the function of text and illustration. This led to the important role of illustration in the art of textbook design in mathematics a one-year learning problem that was often closely related to the use of numbers, symbols and verse text in mathematical language. This has been supported by Norzuraina (2019) by saying that the teacher's incomprehension of the will of texts and illustrations in textbooks may be one of the main causes of students lacking mastery of teacher teaching and learning more effectively. Ironically, the teacher who seeks to liven up the atmosphere of textbook package-based learning is a skilled and creative teacher and has a positive impact on the performance of his students. This has been supported by Ornstein and Hunkins (1998) who stated that groups of teachers need to understand the will of adopted textbooks because they have expertise in the subject area being taught. Based on these problems clearly causes the study to want to study about the interpretation and ability of the influence of teacher demographic factors on the use of textbook packages of mathematics review year one KSSRPK learning problems.

In conclusion, based on the problem, it is clear that researchers want to study the effectiveness of textbook design interpretations of textbook design and illustrations among teachers of special education problems in first year mathematics learning because until now there have not been any studies on the interpretation of text design art and illustrations in the Mathematics textbooks of Year One Learning Problems studied by any researcher.

5. Objectives of the Study

The general objective of this study is to identify the interpretation of mathematics textbook design for year one published by the Ministry of Education (MOE) among special education teachers in primary schools. Meanwhile, the specific objectives of this study were to see:

- 1.1 To identify the effectiveness of the use of teachers against the interpretation of text design art in mathematics textbooks revision year one KSSRPK learning problems.
- 1.2 To identify the effectiveness of the use of teachers towards the interpretation of the art of illustration design in the math textbook revision year one KSSRPK learning difficulties.

6. Research Questions

The study aims to answer the following two questions:

- 1.1 The effectiveness of the teacher's use of the interpretation of text design art in the math textbook revision year one KSSRPK learning difficulties.
- 1.2 The effectiveness of the teacher's use of the interpretation of the art of illustration design in the math textbook revision year one KSSRPK learning difficulties.

7. Conceptual Framework of Studies

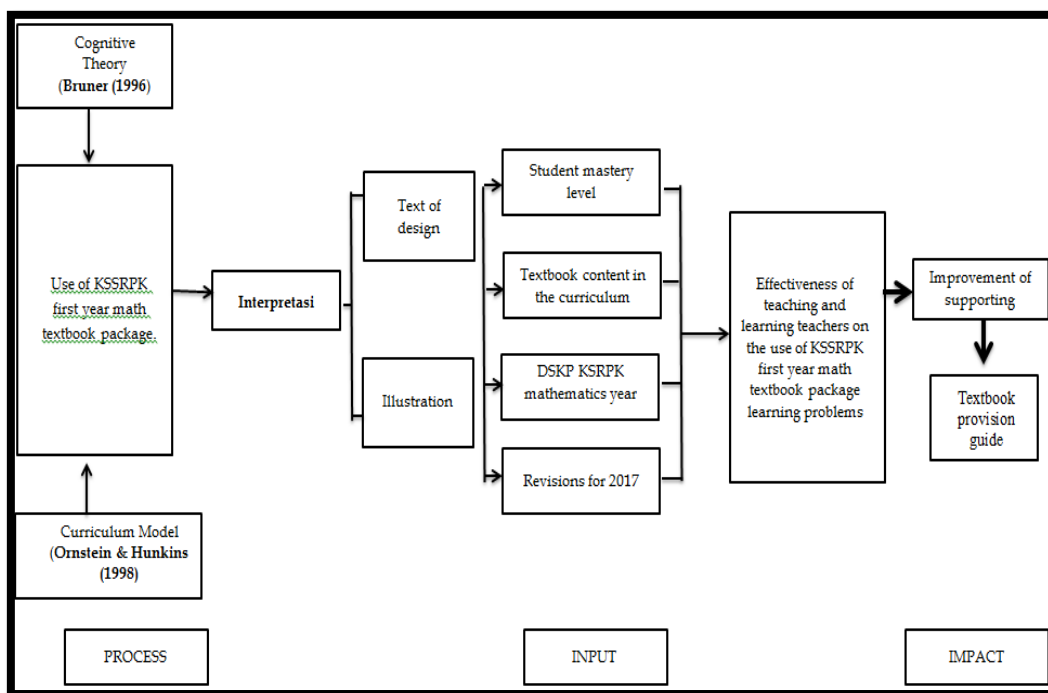


Figure 1.1 : Conceptual Framework for Adaptation From Model (Ornstein & Hunkins(1998) Azizi Yahya (2009), Fatimah Tambi (2009), Mohd Nordin Abu Bakar (2011), Ghazali Yusri (2012) and Azizi Jaafar (2015)).

8. Discussion

OBJECTIVE ONE : To identify the effectiveness of the teacher's use of the interpretation of text design art in the mathematics textbook revision year one KSSRPK learning problems.

Based on references from other studies related to the interpretation of the art of text design, it is clear that the importance of compiling textbooks is a major factor that needs to be discussed as the text often explains and explains the requirements in textbooks to be well communicated to students (Rahmita Yuliana Gazali, 2016). Furthermore, there are other researchers who have interpreted the art elements of the design in their studies. Researchers such as Ghesner (2000) have done research on colors, lines, spaces, appearance, detail, continuity, similarity and dominance. Lene (1981) did a study on colours, sizes, decorative patterns and realistic effects on illustrations. Meanwhile, Mona Masood and Zakiah Zain (2011), conducted a study on the students' experiences in visual viewing through shapes, lines, colours and basic understanding in visuals. In the KPM Primary School Standard Curriculum Document, Year 3 Visual Arts Education (2012) has stipulated that the language of visual arts consists of artistic elements and design principles. The languages of visual arts and aesthetic perceptions that need to be mastered are: (i) Art elements that include lines, colours, braids, appearances, shapes and spaces (ii) Design principles that include harmony, affirmation, balance, cons, rhythm and movement, diversity and unity.

In addition, through interpretations in textbook design, teachers received interpretations of the use of textbooks as basic references to students. According to KPM (2018), textbooks are learning materials based on the basic sources of knowledge that are important and authentic. Textbooks are used as the basis for reading for a particular subject as well as other reference books. Textbook content that does not contradict the National Education Policy can shape itself in intellectual and spiritual aspects (MOE 2005). Studies on the quality of textbooks of some subjects have found that there are weaknesses in terms of text interpretation factors in books (Selvarajah, 2010). This situation was also found to have contributed to the deterioration of textbook usage among teachers during pdp (Nor Azwan 1997; Suraya 2003). According to Fatimatulzahrah and Aliza (2016), the deterioration in the use of textbooks among teachers during the PdP process is also a studied issue whereby teachers are less adept at mastering the textbooks well. This has been supported by the study, Lau Shiau Ching et al (2021) the teacher's incomprehension towards textbooks can have a great impact on the teacher's learning objectives because as a teacher, the mastery of text in quotes is very emphasised to ensure that the teacher's pedagogical knowledge is in line with DSKP's requirements.

Then, according to Vijayaletmy Muniyandy (2017) math teachers also lack adapt and apply the use of textbooks in the classroom. Most teachers who use textbooks during teaching and learning activities respond positively to student achievement. This is in line with a study by Bruce (1998) who states there are several reasons teachers use textbooks in the classroom. Among them is to develop materials that are in the classroom that are difficult to obtain. In the end, the challenges of teachers who have limited time to build new teaching and learning aids and the school often receive pressure from outsiders about the side tasks that need to be carried out by the teacher. However, teachers feel the use of textbooks is one excellent way and can be used in a variety of situations and ways.

In conclusion, a less clear interpretation of text design art can actually have a negative impact on teacher learning in classrooms. Therefore, the interpretation of the art of text design in textbooks should be easily understood by the reader especially to teachers because the teacher is the primary user in the textbook and as the presenter and knowledge of the underlying student through the use of textbooks.

OBJECTIVE TWO : Identify the effectiveness of teacher usage on the interpretation of illustration design art in the math textbook revision year one KSSRPK learning problems.

A study by Norlemi Amir & Akmar Syed Zamri (2017) on the students' interpretation of pictorial illustrations for the operation of addition and rejection in KPM Mathematics textbooks, the purpose of their study was to look at and study children's interpretation of the illustrations used in pdP. Theories used in the study are constructivism theories highlighted by Von Glasersfeld (1990). In their study, two questions of study were raised namely; (i) Will preschoolers be able to interpret serial and single illustrations representing plus and minus operations? (ii) What is the stage of interpretation of illustrations by children based on the response given?. As a result of the case study, they found that pupils were more likely to

identify or translate Mathematical operations in serial incision than single illustrations.

In addition, Sim Kwong Hui and S. Pumadevi (2011) have also studied the concept of fractions depicted in tattoos in mathematics textbooks. The study examined how elementary school Math textbooks had been developed with pupils' understanding of the "Concept of Equal Fractions". Researchers have used study designs involving pencil and paper tests as instruments to collect data. The sample consisted of 36 Year 5 students from a city school in Malaysia who took part in the study. In the study, researchers made the assumption that all pupils had already learned the equivalent fraction in Year 3 and Year 4 using official Mathematics textbooks in MOE primary schools. The results of the test show that the pupil's understanding of the "Concept of Equivalent Fraction" is in the figure of the symmetrical form. The percentage of pupils who understand the "Concept of Equivalent Fraction" in the form of symmetrical diagrams can be determined if examples and activities in textbooks using various forms of symmetry with congruent parts are sufficient to develop an understanding of this concept among MOE primary school pupils.

In addition, Mohd Nazri Abdul Rahman et.al (2017) conducted a study on the quality, design and implementation of secondary school textbook content organizations. In order to improve the efficiency and effectiveness of school learning resources, secondary school textbooks need to be changed in terms of quality, design and implementation of content organizations. According to Mohd Nazri Abdul Rahman et.al, innovation and creativity in secondary school textbooks, the design has been influenced by several indicators. Therefore, in their study, various indicators that influence innovation and creativity in textbooks have been identified based on surveys of literature and expert opinions. The interpretive approach of the Interpretive Structure Model (ISM) has been used to develop relationships between different indicator structures to achieve innovation and creativity in the design of Malaysian school textbooks. A total of 112 experts from all over Malaysia have been involved in the development of innovation and creativity design models for secondary school textbooks through the ISM approach. The findings help textbook authors through new design approaches to develop high school textbooks

Therefore, this study is very important to study the interpretation of illustration design art about the use of teachers to first year math textbooks. Not only that, this study is also expected to be able to add well through the aspect of illustration design that teachers can understand it more clearly and keep the KSSRPK DSKP. Illustrators can also make interpretations of the illustration brief provided by the author appropriately. Therefore, illustration design presentations will become more interesting and work precisely especially illustrations that are difficult to understand and respond to.

9. Suggestions

Textbooks are key reading materials that have a quality and valuable impact as guides, support and referrals to teachers while handling teaching and learning either outside or in the classroom. Studies of this textbook have also seen positive implications. However, the study

of the interpretation of textbook design art among these teachers should be continued from time to time. This can improve the quality and quality of education in our country through the use of quality reading materials.

Not only that, Mohd Nazri Abd et al. (2014) stated that although it is known that the academic performance of students varies according to their respective achievement levels, only a handful of teachers strive to use modified techniques in their studies. Most teachers continue to use traditional methods such as memorizing and using worksheets without striving to give pupils an understanding of a topic as suggested in the textbook. The functionality of the special education administration should play an important role in ensuring that the management of teaching teachers is in line with the level of students' ability in the classroom (Juanell D. Isaac et al, 2016). Therefore, teachers should have good skills in ensuring that the students' learning in the classroom can be implemented in a quality manner so that the ability of teachers and pupils can be improved to a better level especially for students with learning problems against the use of this math textbook.

Therefore, the study is also expected to be able to help in increasing teacher motivation while controlling the use of math textbooks produced by KPM against learning problems students while learning activities are carried out in classrooms in the future.

10. Conclusions

The interpretation of design art in the first year of special education mathematics textbooks in primary school discussed is based on ornstein Dan Hunkins's model criteria (1998) covering aspects of text design and illustrations. Furthermore, Ornstein Dan Hunkins's (1998) model of material standards such as textbooks used could add more knowledge to the standards of the textbook interpretation criteria in the context of pdP on teacher pedagogical skills for students with learning difficulties in primary school. Not only that, Ornstein's selection of textbook design art criteria was made because the textbook criteria cover the entire aspect set out in a textbook. This is expected to help the study as it has aspects that are touched on a textbook more effectively. A clear interpretation of textbook design will assist teachers in ensuring that teacher teaching and learning through the use of textbooks can be improved as well as improvement planning in the future.

Therefore, the effectiveness implemented is expected to help teachers understand more about the arrangement of the art of textbook design itself whether meeting the set criteria or otherwise. The arrangement of textbook design art is necessary to ensure that the components in the textbooks studied are effective either in terms of interpretation of text design art and illustrations for use in PdP in the classroom.

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