UNIVERSITI PUTRA MALAYSIA

EVALUATION OF VISUAL DESIGN ELEMENTS OF PICTURES IN YEAR FOUR ENGLISH TEXTBOOK IN SELECTED MALAYSIAN PRIMARY SCHOOLS

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By

SARA KASMAIENEZHAD FARD

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July 2018

Chairman : **Associate Professor Tajularipin Sulaiman, PhD**
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Textbooks have been used as the main teaching materials in the schools. This study aims to evaluate the pictures of English textbook in the primary year four through the preferences of students and perceptions of teachers. The study has been conducted in three phases. The first data set consists of two phases of content analysis and descriptive survey. The third phase is related to teachers' interview. In order to achieve the goals of the study, mixed method triangulation designed is employed. Quantitative method is used for phase one and phase two, the qualitative method is applied in phase three. Data obtained by both methods are interpreted and triangulated simultaneously. All pictures of year-four primary English textbook were analyzed in terms of the colors used in pictures, unusuality, visual content, the connection between picture and text, and visual elements of pictures used in the textbook. Then, the researcher developed a pictorial questionnaire in the form of survey to determine the level of students' interest to four components of evaluations and different kinds of pictures in terms of their gender. The researcher developed an interview protocol to ask teachers' opinions on four main components investigated in previous phases.

The results of content analysis revealed that there was no coordination among all visual elements (cartoon, graphic, and photograph) as the majority of them were cartoon in the textbook. Finally, it can be noted that unusuality was seen in few pictures of the textbook. Also, the majority of the pictures were simple cartoons in primary and secondary colors which were connected to the text in the textbook. Furthermore, the results showed that the students were highly interested in graphical pictures than cartoons and photos among the visual elements. The results of regression model revealed that students preferred color factor as the most important factor. The unusuality feature had the second order in the preferences of students followed by visual content and visual element factors.

The analysis of teachers' interviews indicated that teachers generally satisfied with the pictures included in the textbook. Teachers were aware of students' preferences except for visual elements. All teachers believed that cartoons included in the textbook were appropriate for students. The results of this study have some implications for teachers, publishers, illustrators, textbook designers, and textbook developers in the ministry of education.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

SUATU PENILAIAN UNSUR REKA BENTUK VISUAL GAMBAR DALAM BUKU TEKS BAHASA INGGERIS TAHUN EMPAT DI SEKOLAH RENDAH MALAYSIA YANG TERPILIH

Oleh

SARA KASMAIENEZHAD FARD

Julai 2018

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Buku teks telah digunakan sebagai bahan pengajaran utama di sekolah-sekolah. Kajian ini bertujuan untuk menilai gambar-gambar dalam buku teks bahasa Inggeris dalam tahun utama empat melalui pilihan pelajar dan persepsi guru. Kajian ini telah dijalankan dalam tiga fasa. Set data pertama terdiri daripada dua fasa analisis kandungan dan kajian deskriptif. Fasa ketiga adalah berkaitan dengan temu bual guru. Dalam usaha untuk mencapai matlamat kajian ini, kaedah campuran triangulasi telah digunakan. Kaedah kuantitatif digunakan untuk fasa satu dan fasa dua kaedah kualitatif digunakan dalam fasa tiga. Data yang diperolehi oleh kedua-dua kaedah ditafsirkan dan ditrangulasikan pada masa yang sama. Semua gambar dalam buku teks Bahasa Inggeris Tahun Empat sekolah rendah telah dianalisa dari segi warna yang digunakan dalam gambar, luar biasa, jenis dan bentuk hubungan antara gambar dan teks, dan jenis gambar yang digunakan dalam buku teks. Kemudian, penyelidik membangunkan soal selidik bergambar dalam bentuk kajian tinjauan untuk menentukan tahap minat pelajar kepada empat komponen penilaian dan pelbagai jenis gambar dari segi jantina mereka. Penyelidik membangunkan protokol temu bual untuk meminta pendapat guru terhadap empat komponen utama dikaji dalam fasa sebelumnya.

Hasil analisis kandungan mendedahkan bahawa tidak ada penyelarasan di antara semua elemen visual (kartun, grafik, dan foto) kerana majoriti daripada mereka adalah kartun dalam buku teks. Akhirnya, ia boleh diperhatikan bahawa luar biasa telah digunakan dalam beberapa gambar buku teks. Juga, majoriti gambar adalah kartun yang mudah dalam warna pertama dan sekunder yang telah dihubungkan kepada teks di dalam buku teks. Tambahan pula, keputusan menunjukkan bahawa pelajar sangat berminat dengan gambar grafik daripada kartun dan gambar sebenar bagi elemen visual. Keputusan model regresi menunjukkan bahawa pelajar lebih memilih faktor

warna sebagai faktor yang paling penting. luar biasa adalah faktor kedua dalam keutamaan pelajar diikuti oleh faktor jenis dan gaya.

Analisis temu bual guru menunjukkan bahawa guru-guru secara amnya berpuas hati gambar-gambar yang dimasukkan dalam buku teks. Guru menyedari keutamaan pelajar kecuali untuk unsur-unsur visual semua guru percaya bahawa kartun termasuk dalam buku teks adalah sesuai untuk pelajar.

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This is to confirm that:
- the research conducted and the writing of this thesis was under our supervision;
- supervision responsibilities as stated in the Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2012-2013) were adhered to.

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INTRODUCTION

1.1   Background of study

In recent years, the educational systems put their emphasis on improving the "3 R's" (a**r**ithmetic, w**r**iting, and **r**eading) as the requirements of the national programs and examinations. However, they have neglected the integration of creativity and thinking skills in the educational context. This approach to material development in an educational system has impeded the achievement of a creative society (Grainger, Barnes, & Scoffham, 2004).

One of the main reasons that education systems have been considered as obstacles to developing creativity for students is that the curriculums focus on "knowledge achievement" (Davies, 2006). Consequently, in such a society where knowledge is considered as the sole outcome of education, education systems are not able to provide the required skills and knowledge in the future (Isaksen & Parnes, 1985; Shaheen, 2010). Based on Morris (2006) a creative society is defined by its educational system. The educational systems play a major role to integrate creativity in the context of educational materials. In the same vein, Ishaq and Director (2003) asserted that students had not reach their full creative potentials because their creativity were not correctly fed in the schools. The significant roles of imagination, innovation, and creativity are not completely developed because some educational experts still do not understand the significance of creativity (Ishaq & Director, 2003).

In this regard, Malaysia is like the majority of Asian countries (Lan Ong, 2010). Although in 2011, the Malaysian Ministry of Education (MOE) presented a reform in curriculum which was called the 'Standard Curriculum for Primary Schools (KSSR). The (KSSR) aims at restructuring and improving the present curriculum to make sure students gain the appropriate knowledge in leadership skills, thinking skills; ethical bilingual; spiritual and national identity to tackle 21st century challenges " (Malaysia, 2012; A. Rahman & Haslynda, 2014).

Nevertheless, in the context of Malaysian educational system, the emphasis has been put on the results of public examinations as the determining factor for students' progression to the higher levels of education or career opportunities (Cullip, 2007). In some cases, teachers use traditional instructional strategies and emphasize on the memorized information as desirable outcomes (Jawarneh, 2013). Moreover, parents still over-emphasize on the exams and have high expectations for their children to get high scores. Based on the findings from studies conducted in Malaysia and a report of the Malaysian School Inspectorate, previous curriculum put much emphasis on learner-centred teaching approaches; however, most classrooms are still being taught by teacher-centred method or combination of chalk-and-talk drill methods (Abdul

Rahman, 2007; Aman & Mustaffa, 2017; Nurul-Awanis, Hazlina, & Yoke-May, 2011; A. Rahman & Haslynda, 2014; A. A. Rahman, 1988; Yaacob, 2006).

Furthermore, in Malaysian education system, the curriculum is still subject/content-centered, exam-oriented, extremely dependent on the textbooks, and emphasizes on memorization-based learning (Abdul Wahid, Abdul Hamid, Low, & Mohd Ashhari, 2011). The main purpose of schooling is considered as producing a passport to working opportunities; therefore, students, teachers, and parents focus on doing well in the public examinations. Even though KSSR is assessed through the innovative format of Ujian Penilaian Sekolah Rendah (UPSR) in which a student's UPSR grade is not only based on a national examination, but also from a combination of the national examination and School-based Assessment (PBS). It is specified in the Malaysia Education Blueprint (A. Rahman & Haslynda, 2014). However, the results of national examinations is only considered as the standard measure of academic achievement (Marimuthu, Mukherjee, & Jasbir, 1984; Press, 2013).

Within the context of schooling in developing countries, textbooks play a central role in conveying instructional content and implementing the curricula (Mahmood, 2010). Materials such as textbooks are not simple or trivial tools by teachers in the classrooms; however, they are the manifestation of the objectives, values, and methods of a specific teaching-learning situation. All symbols in the textbooks, for example, text, images, diagrams, charts, maps, tables, and templates are used to communicate ideas and concepts (Hidi & Baird, 1986; Roth, Bowen, & McGinn, 1999; Sothayapetch, Lavonen, & Juuti, 2013).

Therefore, visual elements which include appearance, color, information inside the textbook, line, shape, form, and texture are combined together and create a picture message. These elements must be considered in analyzing textbook content because they lead to development of supportive learning among students (Erten, Şen, & Yüzüak, 2015; Ren, 2013).

Instruction is usually supported by a variety of visual elements in the textbooks; hence, pictures and visual elements considered as effective tools in education. In the past few decades, more value has been given to images used in textbooks. For instance, Brody (1981) considered pictures and other additional materials which support effective learning as symbol systems.

Furthermore, there is a growing body of literature that recognizes the importance of pictures because they reflect the detail of texts and facilitate students' understanding (Brody, 1981). Sometimes, pictures extend text by developing characters, settings, and mood. Based on Nodelman (2013) pictures can express various aspects of a story more efficiently than text (Nodelman, 2013). Similarly, Creany (1993) believed that pictures can illustrate the nature or setting of a story which is unattainable by only written text for a young and untrained reader.

Past studies reveal that the use of visuals along with textual information enhanced learners' performance considerably (Kuzu, Akbulut, & Sahin, 2007). Mayer's (2002) Multimedia Principle states that simultaneous presentation of words and pictures let learners mentally construct the meaning and connect pictures to the text.

Hence, textbooks that use visual images to express ideas are perfect teaching aids for the youths (Costello & Kolodziej, 2006). Children intuitively understand the meaning of pictures well before they are taught how to read words on paper. Hibbing (2003) corroborates the idea of integrating pictures into textbook; he found that pictures helped students to understand the given text. Moreover, the presence of attractive pictures can decrease the load of the language and facilitate language acquisition (Wood, Lapp, Flood, & Taylor, 2007); (P. C. Miller & Endo, 2004).

Yasar and Seremet (2007) believed that pictures in a textbook not only strengthen the learning but also motivate students. They also aid students to acquire information that influence their intellectual skills and thinking processes. Thus, line drawings and images presented in the units and subjects are used to improve creative and critical thinking, solve problems, show empathy, and express skills; moreover, images help students to better understand the issues and formalize instruction (Yasar & Seremet, 2007).

There are some studies indicating that the use of pictures can lead to generate a new idea and attract students' attentions. Suitable educational materials can grow students' creative skills and imaginations (Kim, 2009). In general, active and creative learning occurs when students are motivated to participate in various activities and look for various educational materials. Educational materials should be open-ended to give an opportunity to students to present their ideas (Duffy, 2010; Kim, 2009) .

However, the results of the studies show that the quality of educational materials is not only the effective factor in teaching and learning process but also the other factors including environment, teachers' experience and perceptions, curriculum, gender and individual differences, etc. are all effective in educational achievements (Bonomo, 2012; Kaiser, 2006; Matheus, 2009; Pegram, 2016). Nevertheless, the issue of textbook and pictures have received considerable critical attention in an education system. McDonough and Shaw, (2003) believed that analyzing and evaluation of textbooks demand serious considerations because unsuitable choices can waste time and money and demotivate students and teachers (McDonough and Shaw, (2003). The main purpose of the textbook evaluation is to give helpful feedback to a range of audiences including sponsors, contributors, administrators, staff, and other relevant groups.

Kuzu, Akbulut, and Sahin (2007) suggested that textbook evaluation must focus on two parts. The first step was content analysis by preparing a content checklist or asking experts' opinion. The second was the evaluation of images that had not been evaluated by a robust quantitative tool; however, both kinds of evaluations have been neglected

(Numanoglu & Bayir, 2009). While graphic experts and designers emphasize on suitable appearance and face validity, educational researchers emphasize on the content and ignore the appearance (Kuzu et al., 2007).

The course-books in the current educational system have problems regarding their content validity and instructional design. The author's expertise in the subject matter cannot guarantee the appropriateness of instructional design principles. Such instructional designs include the issues of content, cover design, typography, and quality of the paper, printing, visuals, and images (Kuzu et al., 2007). Therefore, before introducing the textbook, the evaluation must be reviewed and evaluated in terms of content and instructional design to ensure its appropriateness for school programs. (Rezaee, Kouhpaeenejad, & Mohammadi, 2013); (Kia-Ahmadi & Arabmofrad, 2015).The reviewer should take into account different aspects in evaluating the textbooks such as the student's age, ability level, and existing knowledge that students require to enable learning and the course syllabus.

Since the Malaysian educational system is experiencing a significant pedagogical transition from a traditional teacher-oriented to student-oriented approach in teaching and learning (Kasim & Aini, 2012), the analysis of educational settings seems necessary. In this regard, textbooks and the pictures as educational materials need to be examined.

1.2   Problem Statement

The rationale for conducting this research is to evaluate the perceptions of students and teachers towards the pictures of the textbook. In practice, Malaysian educational system might rely on the traditional method of teaching; hence, learning is perceived as memorizing and reproducing the content of the textbook (Lee, 1999; Nurul-Awanis et al., 2011).

Malaysian education system has a textbook-based culture and textbooks seem essential to all levels of schooling (Liew, 2007; A. Rahman & Haslynda, 2014; Santhiram, 1997). It's obvious that textbooks have both texts and images which are necessary to be analysed and evaluated (Numanoglu & Bayir, 2009).

According to the current research conducted on textbooks in Malaysia, most studies were focused on content and text and the images in textbooks are less considered except in few cases conducted from the perspective of gender-bias (Liew, 2007; Yasin et al., 2012). Since images in textbooks are particularly important and functional (Wen et al., 2011) the evaluation and analysis of images can be done in other aspects such as colors, visual elements, the connection between text and image and the way they provide opportunity for imagination and creativity of students.

On the other hand, by considering the importance of textbooks in Malaysia's education system, different stages of textbook publication can be carefully reviewed in order to find some important points requiring more attention. Such textbooks are prepared according to the guidelines of English Language syllabus set by the Ministry of Education (Textbook Bureau of the Ministry of Education Malaysia) (Murugesan, 2003). Malaysia's ministry of education highly emphasizes on the attractiveness of pictures for the English textbook in its guideline. To this end, the textbook designers pay more attentions towards attractiveness of pictures than creativeness of pictures. Moreover, the guideline suggests using cartoon form as it is more attractive to students. However, to the best of researcher's knowledge, no empirical study has investigated the primary Malaysian textbooks in terms of attractiveness of cartoon-based pictures. Moreover, no study has been conducted to examine whether textbook writers take the creativity into account in selecting the pictures in the textbook. On the other hand, the Ministry of Education suggested integrating cartoon forms which is not based on any empirical studies in Malaysian educational context and its applicability and appropriateness have not been confirmed in recent digital age.

In other words, the effect of using cartoon illustrations in textbooks may have been emphasized in some previous studies. However, based on in depth review of the existing literature, the role and effect of cartoon images in comparison with other types of images (including photographs, graphic images, etc.) have not been investigated in any research. On the other hand, the preferences of students as the important users of textbooks have been less of interest to researchers.

Moreover, the results of some studies show that there is a difference between female and male students in most subjects of learning and training as well as color selection (Cooper, 2009; Ellis & Ficek, 2001; Kaiser, 2006; Matheus, 2009; Pegram, 2016). Therefore, considering the students' gender in the process of textbooks design and preparation is another item that needs the researchers and textbook designers' attention.

Similar to the most developing countries, textbooks in Malaysia are written by experts who assisted with publishers. Malaysian textbook writers focus on the content in line with the syllabus which is based on subject-matter (Abdul Wahid et al., 2011); furthermore, textbooks are written based on the writers' intuition rather than empirical studies (Mukundan & Nimehchisalem, 2011). Without doubt, the textbooks should be designed to meet the students' needs (Cunningsworth, 1995; Williams, 1983). Creativity is one of the critical needs of students for their future lives (Malaysia, 2012). However, it seems that Malaysian textbook writers neglect students' needs such as creativity in designing textbooks based on guideline provided by Malaysia's Ministry of Education (Malaysia, 2014).

Likewise, in the process of textbook preparation, the publishers usually use illustrators to provide pictures for the texts which are prepared by the writers (Hogue-Davies, 2003; Singh, Rahman, & Hoon, 2010). Although, those illustrators are experts in their fields and they try to use suitable pictures for the prepared text; however, they failed

to consider the educational goals as their main priorities (Lowman, 2006). Therefore, pictures and illustrations become a tool to clarify the content, not to promote the educational goals.

What has been described in this section is related to the points to be considered before the publication of textbooks. But what is to be considered after the publication of textbooks is the topic of evaluation of published textbooks. Figure 1-1 is presented to clarify the steps and information for publishing textbooks.
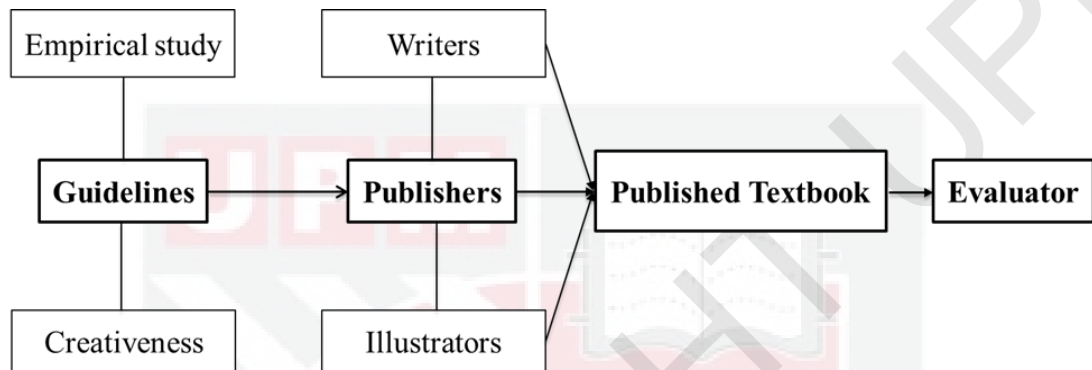
Figure 1.1 : Steps of publishing textbooks

One of the most significant current discussions in text evaluation by government agencies is that evaluators focus only on the format of the presentation; they do not evaluate pictures as tools for understanding content (Singh et al., 2010)**.** They usually consider images as attractive tools in the text.

Previous studies addressed a wide range of textbook-related issues, for instance, they focused on readability, and whether textbooks are dumbed-down or oversimplified (Apple, 1992; Ornstein, 1994; Sewall, 2000) or gender, ethnic, or racial portrayal and representation issues (Birchall & Faichney, 1985; Hutton & Polo, 1976; Jones, 1980). So far, the current literature provides little empirical evidence on the impacts of visual formats and designs of textbooks on the learning outcomes (Praphamontripong, 2010). Some researches (Praphamontripong, 2010; Yasin et al., 2012) reflected that very few research was directed towards the process in which textbook visual materials were selected, created, and displayed. Previous few published studies about the pictures in textbooks are only limited to the western world in which English is the medium of instruction.

In Malaysian educational system, the attention is highly paid on reading words and visual images as "decoration". Many local researchers (Hamid, Yasin, Bakar, Keong, & Jalaluddin, 2008; Yasin et al., 2012) have only analyzed written texts to see how social practices are regarded negatively such as gender bias in words (lexical items) and linguistic structures. Moreover, the researchers who investigated about the pictures in Malaysian textbooks had only focused on the gender matters.

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To date, the researcher has not found any empirical study which takes into account students and teachers' perceptions of the pictures in the textbooks according to the guideline provided by Malaysia's Ministry of Education (Abdul Rahman, personal communication, Jan 22, 2016). Hence, the researcher aims to fill this gap in the literature by examining the pictures of Malaysian English textbook in primary year four based on students' and teachers' perceptions.

1.3 Objectives and Purpose of Study

The main purpose of this study is to evaluate the pictures of English textbook in the primary year four through students' preferences and teachers' perceptions. The specific objectives of this research are:

1. To explore the current elements of visual design of the pictures in primary-school year four English textbook.
2. To explore the visual content of pictures in primary-school year four English textbook.
3. To determine the kind of colors used in primary-school year four English textbook pictures.
4. To determine the extent of unusuality considered in the pictures.
5. To investigate the elements of visual design of the pictures preferred by students according to gender.
6. To investigate the visual content of the pictures preferred by students according to gender.
7. To investigate which colors of pictures more preferred by students according to gender.
8. To evaluate to what extent unusual pictures are more preferred by students according to gender.
9. To determine the teachers' opinions about visual elements, visual content, unusuality, and colors of pictures in the primary-school year four English textbook.

1.4 Research Questions

This study addresses the following research questions:

1) What are the current visual elements of pictures in primary school year four English textbook?
2) What are the visual contents of pictures in primary school year four English textbook?
3) What are the colors of pictures in the primary school year four English textbook?
4) To what extent is the unusuality considered in pictures?
5) Which visual elements of pictures are more preferred by students according to gender?

6) Which visual content of pictures are more preferred by students according to gender?
7) Which colors of pictures are more preferred by the students according to gender?
8) To what extent, unusual pictures are more preferred by students according to gender?
9) What are the teachers' opinions about visual elements, visual content, unusuality, and colors of pictures in primary year four English textbook?

1.5 Significance of the Study

This is the first study to evaluate the pictures of English textbook in the primary year four through students' preferences and teachers' perceptions in the context of Malaysia. Though, researchers highly emphasize on the importance of using pictures in teaching and learning process but there is less knowledge on the integration of pictures by curriculum developers in designing and planning textbooks. The findings should make a significant contribution to Malaysian educational system through the analysis of textbooks to determine the factors that could inhibit or promote primary-school students' preference, imagination and creativity. This study offers a benchmark by considering students' preference and creativity. In general, the current study provides a context for appropriate recommendations to the reforming of policies, curricula, textbooks, teaching methods, and teachers' perceptions.

The significance of designing and reviewing teaching and learning materials is increasing gradually since the quality and suitability of textbooks used in the educational process must be ensured. Consequently, the government could make changes in increasing children's creativity in primary education and such changes could be built on current practices.

The results of this study contribute to new knowledge and promote the application of creativity to textbook pictures. The incorporation of unusual or extraordinary pictures in textbooks will increase students' creativity and imagination. Creativity and its incorporation must be wisely considered when designing textbook pictures. This study might help curriculum planners and designers to take into account creativity and others factor to promote creativity of images used in the textbooks of the primary-school English textbook. This study can also help ministry administrators to develop new textbooks that meet students' preference and motivation.

Also, this study can help teachers teach effectively by giving them the required information on students' preferences for colors, visual elements, and etc. They can use the information for more efficient training.

1.6   Scope and Limitations of the Study

In this study, the researcher tries to study pictures in year-four primary school English textbook based on visual elements, text and image connection, colors, and unusuality. Like any other research, the present study has some limitations.

According to Piaget, the effect of images is significant at earlier ages. Since the students and teachers are in preparation for UPSR exam at the last years of primary school in Malaysia, the researcher has limited the study to students and teachers of year-four in primary schools.

In addition, the researcher did not possess sufficient knowledge of Malay language, so the study sample was confined only to textbooks written in English. Moreover, the images in textbook can be closely linked with the text and text without the image is meaningless; therefore, the researcher as a person who did not know Malay language decided to focus on English textbook to understand the links between text and pictures.

Since the researcher attempted to investigate "students' preferences" and "teachers' perceptions" for pictures in addition to content analysis of textbook image; the researcher was not able to analyze the image content based on the other aspects such as image size, image location, font size, and captions.

On the other hand, although the color is considered as one of the components of the visual elements, but it is a widespread topic and it consists of several sub topics; therefore, the researcher preferred not to include this topic in the visual element classification and studied it in an individual class.

Based on the studies carried out by the researcher, there was no specific instrument to analyze the content of textbook pictures and also to obtain students' preferences and teachers' viewpoints regarding the pictures in the textbooks. So, the researcher designed a coding sheet for content analysis, a pictorial questionnaire to get students' preferences, and an interview protocol to obtain teachers' viewpoints about the pictures in textbook.

Moreover, this study is conducted on students and teachers selected from schools in Selangor, Malaysia. Therefore, the generalization of the results obtained in this study maybe subject to limitations.

1.7   Definitions of Key Terms

This section provides a definition of the key terms used throughout the study.

1.7.1   Textbooks Evaluation

Textbook evaluation is defined to measure the value (or potential value) of a textbook by making judgement about the effect of the textbook on students (Tomlinson & Masuhara, 2004). In this study, the evaluation means the analysis of pictures in year-4 English textbook based on the relationship between text and pictures, kinds of pictures, colors, and unusuality aspects of pictures through the perceptions of teachers and students about the pictures.

1.7.2   Textbook

A textbook is a manual of instruction in any branch of a study. Textbooks are written and published for the educational goals of a classroom (Johnsen & Sivesind, 1993; Mikk & Luik, 2003). The Ministry of National Education defines textbooks as published materials used in education, they are tools used in formal and non-formal educational institutions in any grade in order to reflects the curricula (Keser & Aydin, 2007).

Textbooks form a part of the larger group of educational media, particularly the printed media, which include textbooks, educator guides, learner guides, learner workbooks, readers, atlases, dictionaries, magazines, newspapers, charts, and posters (Stoffels, 2005; Swanepoel, 2010). In this study, textbook refers to the material produced according to the demand of ministry of education in Malaysia.

1.7.3   Visual elements

Visual elements is referred to the line, shape, form, color, and texture which are combined together and create a picture message and allow the user to observe, recognize and identify things every day (Giard, 2009; Ren, 2013). Yaser and Seremet (2007) believe that visual elements refer to the different styles of visuals to record and present visual content in the textbook. Each style has specific capabilities for presenting visual information and specific challenges for authors seeking to convey information and learners seeking to decode and construct new knowledge from the content information (Yasar & Seremet, 2007). According to Aslan (2010) and Yasar and Sermet (2007), the visual elements are divided into three groups: realistic tools, similar tools, and editorial tools.

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In this study, the visual elements are analyzed for all the pictures of the studied textbook which can be a photograph as the reflection of a real picture, a cartoon or caricature created by a painter, or a graphical picture produced by computer software.

- **Photograph**

A photograph is categorized as an image of a place, event, activity, or person, created by exposing light-sensitive media to a light source. Content is differentiated into color and monochrome. Photographs are the most effective tool in the physical depiction of situations and events, even ideas (Alexandra Adamíková, 2012). In this study, all real pictures taken by the camera are considered as photographs.

- **Cartoon**

A cartoon is an artist's drawing or engraving that caricatures a person, event, or point of view (Perkins, 1975). For the purpose of this study, all pictures created by a painter with non-realistic or semi-realistic characteristics are classified as cartoons.

- **Graphics**

Graphics are visual images or designs made on a surface (e.g., wall, canvas, screen, paper, and stone) with the aim of illustrating, informing, or entertaining (Aslan, 2010; Praveen & Rajan, 2013). In this study, the graphical pictures are real pictures edited by computer software; therefore, they are not real pictures anymore.

1.7.4 Visual content

Visual content refers to the multiple roles that visuals can fulfill in the textbooks. The type of each picture is determined by its relation to the text. Visual content can attract learners' attention. It can illustrate complex informational relationships. It can complement text-based information. It can provide unique information that cannot be easily rendered by text-based materials (Mayer, 2000; Mayer & Moreno, 2003). In this study, the meaning of visual content refers to the relationship between picture and text in the textbook. Mayer (2000) categorized each visual in an instructional material as it belonged to one of the following categories:

- **Decorational**

It is to make the material visually attractive to the learner and to draw learner's attention to the associated text while providing motivation to read the content. These types of visuals are aimed to entertain the reader, but they do not improve the instructional message of the text (Mayer, 2000). In this study, (decorative) pictures are those used to get students' attentions towards the text.

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- **Representational**

It provides a similar content to the narrative text but in the visual forms to enrich the content for the learner and support visual learning (Mayer, 2000). In this study, those pictures along with the related text in the textbook are classified as representational.

- **Organizational**

It demonstrates the relationship between the parts or the elements of a process and helps the learner understand the connection between the informational components (Mayer, 2000). In this study, some pictures provide deeper learning by illustrating some parts of the text. They are classified as organizational pictures.

- **Explanative**

It serves to clarify complex or dense narratives by providing concrete visual representations to illustrate concepts or ideas. Explanative visuals explain how a system works (Mayer, 2000). In this study, those pictures which provide detailed information more than the text in the textbook are classified as explanative pictures.

1.7.5   Colors

The color is the visual effect that is caused by the spectral composition of the light emitted, transmitted or reflected by objects (Morton, 2001). In this study, the colors are divided into three groups based on the color wheel. All pictures of the textbook are analyzed according to this classification as follows:

- **Primary Colors**

These colors are not formed by combining other colors; no mixture of colors recreate them; they comprise the pigments of red, yellow, and blue in traditional color theory, and other colors are derived from them.

- **Secondary Colors**
A mixture of the primary colors produces these secondary colors: green, orange, and purple.

- **Tertiary Colors**

These colors are mixtures of primary and secondary colors represented by two-word names, for example, yellow-orange, red-orange, red-purple, and so on.

1.7.6 Unusuality

Unusual examples are conventionally defined as the pictures which are similar to very few or are not similar to any former known examples. Visual images sounds atypical or unusual, since they can display features that deviate somehow from typical categories to which they belong (Saleh, 2017). In this study, unusual pictures are those pictures that rarely seen in the real world. Images that students rarely encounter in their daily routine. These images include images of animals, plants, bodies and characters which differ in shape and appearance in the real world.

1.7.7 Perception

Ray (2002) state that "perception is reality" in education. On the other hand, Bosier (2007) considers teacher's perception through this definition: "Teacher's awareness of his/her role and his/her responsibility as a teacher can influence the level of students' achievements". According to above-mentioned definitions in this study, teachers' perceptions refers to their attitude, insight, understanding, and concern on pictures of year-four English textbook. The researcher attempts to reach a deep and correct understanding of teachers' attitude and insight about images of textbook during interviews.

1.7.8 Preference

Preference is defined as a decision made by student (Bottorff, 1974). In this study, students had a preference to select among various pictures (in terms of color, visual content, etc.) and what is attractive and interesting to them.

1.8 Summary

In this section, a brief overview of the status and performance of education in educational systems is discussed. Then the important role of creativity is highlighted in an educational system. Also, a clear picture of the Malaysian educational system as a developing country which is transiting from "teacher-centered" to "student-centered" is explained. Subsequently, the importance of evaluation of textbook as the central educational resource is emphasized. As creativity training is one of the defined goals in the Malaysian education system, particular attention to the content and the form of textbooks is necessary. Then obstacles that make textbooks ineffective (in spite of energy and cost spent on them) have been discussed in the problem statement. The objectives of this study have been formed through identification of obstacles and problems in preparing and publishing textbooks. The answers to these questions undoubtedly can be a great help for designers and evaluators of textbooks in education management. Therefore, the results of this study assist designers by raising their awareness to consider pictures and creativity in the process of preparing the textbooks as one of the essential educational resources. In addition, limitations and scope of this

study have been described, and definitions of key terms are explained at the end of this chapter.

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Sara Kasmaienezhad-Fard, was born in Tehran, Iran. She completed her bachelor degree in Persian Language and Literature at Azad University-Roodehen Branch, Tehran, Iran. Then, she got her master degree in Educational Science-Curriculum Development from Azad University-South Tehran Branch, Tehran, Iran. Upon completion of her studies, she worked as a teacher in high school and also as an educational counselor and planner in a private educational center. Because of her interest in educational studies, she started her PhD at University of Putra Malaysia and worked on visual elements of primary school textbooks. During PhD study, she has analyzed the textbooks from the perspectives of students and teachers through qualitative and quantitative approaches and published several journal papers in the area of educational studies. Totally, she has 8- year of experience in educational institutes in teaching, educational counseling, and researching.

LIST OF PUBLICATIONS

An Evaluation of the Colors in Primary School English Textbook through Students' Perceptions

Sara Kasmaienezhad-Fard, Tajularipin Sulaiman, Nor Hayati Alwi, Ahmad Fauzi MohdAyub. Journal of Studies in Education. 2017, Vol. 7, No. 4. ISSN 2162-6952

An Evaluation of Pictures in English Textbook in Primary Schools through Teachers' Perceptions

Sara Kasmaienezhad-Fard, Nor Hayati Alwi, Tajularipin Sulaiman, Roselan bin Baki Int. Journal of Academic Research in Business and Social Sciences. Accepted but has not been published yet. ISSN: 2222-6990

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