A CONTENT ANALYSIS OF THE COLORS IN THE EFL TEXTBOOK OF ACTION PACK

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ABSTRACT: *This study aimed at analyzing the colors of "Action Pack 12" for the twelfth grade in order to investigate whether these colors agree with the color theory proposed by Goethe (1810). To achieve the purpose of the study, all the pictures of the textbook were analyzed and categorized into three groups. The results showed that more than 50% of the colors were found in the tertiary color group as the first rank. The second color group gained the second rank with 44.9%, whereas the primary colors gained the third rank with 39%. Several recommendations were put forth.*

KEYWORDS: Content Analysis, EFL Textbooks, Colors, Jordan

INTRODUCTION

There is no doubt that the textbook is an important element in the learning process. Without a good textbook teaching English may be weak, so that the textbook is an essential element.

The benefits of the textbook are found for both students and teachers, but if the textbook offers them with the required skills that help them in the teaching and the learning (Hutchibson & Torres, 1994). Moreover, the textbook has a powerful role in the lives of people because the easy to use it at any time and place in which students need it. In addition, there are many advantages for the textbook such as measuring students' progress and their achievement (Hycraft, 1998)

The Jordanian Ministry of Education seeks to improve the textbooks permanently because of the importance of the textbooks in the learning process. Therefore, it is important to conduct this study to analyze the colors in " Action Pack 12" for the twelfth grade to find out the importance and the influence of the colors on students' learning.

The variety of colors is needed in the textbook. Vetter, Ward, and Shapiro (1995) state that adding color to classroom instruction may enhance students' performance. In addition, Buckingham and Harrower (2007) state that using the color application in classroom instruction is obligatory, especially in the primary grades to attract them towards learning. The results of their study showed that students in grade 4 and 5 are more interested in the maps that are full of colors than the maps with black and white colors (Buckingham & Harrower, 2007).

On the one hand, Mahnke (1996) who believes that pictures many colors are useful in attracting young children in elementary grades. He also confirms that light colors and highly chromatic contrast ones are more appealing to younger students (Mahnke, 1996). On the other hand, the children who focus on the colors may reduce their concentration as it is found Piaget speech, but their focus increase on characteristics such as form (Otto & Askov, 1968).

A plethora of evaluation research was conducted on the currently taught series "Action Pack" for different grades, but none of these had been conducted on Action Pack 12 and evaluate its colors used in pictures. One of the best evaluating instruments that can be followed is content analysis. The results of the content analysis may provide a full picture of the textbook authors and policy-makers to make the required developments of the textbook analyzed.

Problems of the Study

It is found that there is no enough research which deals with analyzing English textbooks in general and the series of the English textbook entitled "Action Pack" in particular. Moreover, the researcher does not find enough research that deals with the colors and their effects on students' learning. Based on these observations, the researcher seeks to encourage the area of research and to fill in the gap in the literature in evaluating the colors of English textbooks. This study, as it is hoped, will pinpoint the colors used in the textbook by analyzing the pictures through the color theory which may allow making changes in the colors used.

Purpose of the Study

The aim of this study is to evaluate the colors used in "Action Pack 12" for the twelfth grade in Jordanian schools.

Questions of the Study

This study seeks to answer the following questions:

1. To what extent do the colors of "Action pack 12" agree with the color theory proposed by Goethe?

2. What are the highest and the least colors used in all the textbook modules?

Significance of the Study

The series of "Action pack 12 " was introduced for the twelfth grade for the academic year 2015/2016. This is the first study in Jordan, to the researcher' best knowledge, which aims to examine the colors used in the textbook. The findings of the current study will be useful to those who are interested in curriculum planning. The results reported in the current study may open new ventures for interested researchers as it is hoped that it may be a contribution to the educational research.

Criteria of Analysis

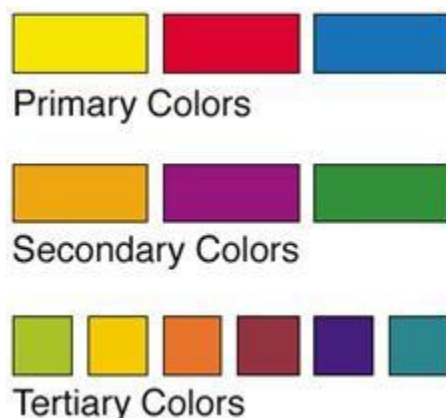The following three- groups of colors are used as criteria for the analysis:

Figure 1. Categories of Colors

Unit of Analysis

All the pictures are analyzed based on three- categories of the colors as the unit of the analysis of the current study.

Definitions of Terms

Action pack: is the latest copy by Cheryl Pelteret, Liz Kilbey and Judith Greet. Ten units are published for the two semesters. The Ministry of education decided to adopt this book for 12th Jordanian students with the beginning of the scholastic year 2015/2016.

Color Theory: it has different definitions such as concepts and categories, but the present study focuses on the color wheel.

Color Wheel: is a chart of colors that shows the connections between the colors.

Primary Colors are three basic colors which are red, yellow and blue.

Secondary Colors: means that mixing the three primary colors will result to produce secondary colors such as orange, purple and green.

Tertiary Colors: mixing the primary and the secondary colors to produce other colors.

Limitations of the study

The current study is limited to all pictures that are used in " Action Pack 12" for the twelfth grade as a textbook which is taught in 2018 for Jordanian students.

REVIEW OF RELATED LITERATURE

Color theory has numerous concepts, definitions, and design applications, but only three of its basic categories are more logical and useful: color wheel, color harmony, and color usage context. The focus of this study is the color wheel. Sir Isaac Newton was the first person who tries to develop the color circle of reds, yellows, and blues. He also wrote the laws of the

color mixing. This discovery allows for a white light through two crystal refracts the light into its shadowy varieties. The development of the color wheel is based on the seven wavelengths of the visual spectrum (Bell, 2013).

There are several definitions for content analysis. It was defined as "any technique for making inferences by objectively and systematically identifying specified characteristics of messages"(Holsti, 1969, p. 14). According to Pool (in Ahmed & Al-Hammadi, 1987, p. 343) defined content analysis as "An accurate method that aims at describing textual information which takes accuracy, validity and reliability of the description into consideration".

Content analysis can be used to give information, ideas and describe the real-life situation. Moreover, content analysis is used to guide acts by making new and valid inferences from the data in its context (Downe Wamboldt, 1992).

According to Rose (2007) states that content analysis was mainly used to examine the text, but later it is used to analyze the visual messages, essentially when a large sample was found. In addition, content analysis as a method can be used for analyzing the symbolic content. In the current research, the content analysis is limited to the colors of the pictures used in " Action Pack 12 ".

There are important characteristics of the content analysis research. These include systematic and objectivity that the researcher should do before beginning any type of the analysis (Krippendorff, 2004; Riff, Lacy & Fico, 2014). This step can be carried out through coding the content into many categories.

Content analysis can play a very important role in directing the attention towards the importance of the colors in the textbook. There are many studies were done on the importance of colors and its aspects such as its impact on the physical systems of the human body (Torrice & Logrippo, 1989), and the relationship between color and energy level as well as mood (Kueller & Mikellides, 1993).

The role of color in education has not been investigated. A lot of studies researched the color and its relationship with aspects of education, for instance, students' motivation (Otto & Askov, 1968); age and color preference to surrounded environments (Jalil, Yunus, & Said, 2013); students' attention level and their cognitive and learning abilities (Jalil et al., 2013); memory performance and attention keeping (Kim, 2010); and emotion as well as academic performance (Gaines & Curry, 2011).

Although the colors play an important role as a visual element in the textbook, the researcher has not found enough studies that deal with the color and seek to evaluate the possible effect on students' learning.

In this regard, Kasmaienezhad-Fard, Sulaiman, Alwi and Ayub (2017) evaluated the colors used in the primary English textbook in Malaysia, and also examined the 384 students color preferences. The results of the study revealed that primary colors gained the highest rate in analyzing the pictures. Also, the findings showed that students prefer the tertiary colors.

Roohani and Sharifi (2015) evaluated the visual elements in the Interchange 3 and Top Notch 3B as the English textbook. The purpose of the study was to find out the balance of black-and-white and color drawings and photos and examines the extent to which visual materials

are used for decorative purposes. Findings of their analysis showed that color pictures represent a large percentage of illustrations in both textbooks. The findings also revealed that Interchange 3 has more drawings than the Top Notch 3 which has more photos.

Hanafy and Sanad (2015) investigated the differences in color preferences associated with the academic field of study in Egypt. The sample of the study was 80 students. Results showed that the white color was found the most preferred color. In another study, Jalila, Yunus, and Said (2013) examined students' color perceptions and preference. The sample of the study was 798 students from two universities in Malaysia. To collect the date, the questionnaire was scheduled. Results revealed that both female and male preferred colors such as blue, green and purple. Also, colors like pink and blue are respectively preferred by females and males.

Mohebbi (2014) conducted a study to identify gender-based color differences among the Iranian boys. The sample of the study consisted of 50 boys and 50 girls. The findings of the study revealed significant differences appeared among the boys and girls towards four colors including blue, green, pink and black.

Similarly, Erfani (2012) investigated the effect of using visual materials on reading comprehension ability of Iranian university students. Results showed that the experimental group who received passage by pictures performed better than the control group who were not taught by pictures.

Romney and Bell (2012) analyzed business English textbooks which hey categorized into pictures as either instructional or decorative. The findings revealed that most of the images in the texts were decorative.

Hill (2003) conducted a study to examine the visual elements in four textbooks. Results showed that Headway and Matters had the highest percentage of black-and-white and color illustrations respectively.

Ellis and Ficek (2001) examined the sex differences in color preferences. The sample of the study was college students with 1924 male and 3766 female. The results showed that male preferred the blue color while the female preferences ranged between green and blue.

Concluding Remarks

After reviewing the literature on the colors, the researcher has drawn various conclusions as the followings:

1- Studies were carried out on school stages, see for example: (Kasmaienezhad-Fard et al., 2017; Mohebbi, 2014).

2- Studies were carried out on university students, for example, (Yunus & Said, 2013).

3- The current study is similar to some previous studies in categorizing the color based on three groups (e.g., Kasmaienezhad-Fard et al., 2017).

METHOD AND PROCEDURES

The descriptive quantitative design is used to evaluate the colors in "Action Pack 12" as the textbook for Jordanian twelfth grade. The researcher divides the colors into three groups as the following primary, secondary and tertiary colors. The colors of the pictures in the textbook are analyzed quantitatively to study their current situation.

Population and Sampling

The population of the study is the entire pictures in the textbook which is used to teach twelfth grade at Action Pack 12 in 2018. This is shown in Table 1.

Table 1. Distribution of the pictures in Action Pack 12.

Unit Number	Unit title	Number of pictures
1	Information Technology	15
2	A healthy life	14
3	Medical advances	10
4	Success stories	15
5	The arts	11
6	Education today	12
7	Lifelong learning	11
8	Language	12
9	The world of business	10
10	Career choices	18
Total		128

Instrumentation and Data Collection

The researcher designed the instrument to collect the data. The researcher designed an original coding sheet to analyze the colors used in the textbook. The pictures were coded according to the color categories (primary colors, secondary colors, tertiary colors). All the textbook colors were analyzed by using frequencies and percentages to find out the current situation of these colors.

To establish the validity of the list of categories used in the analysis, they were given to a jury of three experts in TEFL and measurement and evaluation to ascertain its appropriateness for the purposes of the research. The necessary changes were done according to the suggestions and remarks of the judges, therefore finalizing the instrument.

To find out the reliability, the inter-rater reliability was calculated. The researcher and the analyst analyzed the colors into three groups. The researcher then chose a random sample of 75 pictures from the 128 pictures in the textbook. The sample was analyzed by the researcher and the analyst, and the frequency of agreement and disagreement between them was then calculated. Results show that there was a high agreement between the researcher and the analyst with 91% according to the agreement formula.

Findings of the Study

All the textbook pictures were considered in the investigation, and their color types determined one by one. From the 96 textbook pages, 128 pictures were sampled for the analysis. The results of the analysis are found in Table 2.

Table 2. Frequency of the color pictures in the textbook

Color	Frequency	Percentage
Primary	50	39
Secondary	57	44.5
Tertiary	65	50
Another color	45	35

The colors of the pictures were assessed into three groups primary, secondary, and tertiary, whereas the colors which do not locate to these groups were considered as other colors. According to Table 2, the primary, secondary, tertiary, and other colors in the 128 pictures were used in 50, 57,65, and 45 times, respectively. Tertiary colors were used in about 50% of the textbook pictures, ranking first, followed by the primary and secondary colors.

DISCUSSION

The results of this study showed that more than 50% of the pictures in the English textbook " Action Pack 12" for the twelfth grade are colored with the combination more than one color. In addition, 50% of the pictures use tertiary colors (yellow-orange, yellow-red, yellow-blue, blue-green, blue-violet, and red-violet), and 39 % use primary colors like red, yellow, blue. The colors such as orange, green, purple are used as a secondary color with 44.5 %. There is also another group of colors in art and painting, and it includes white, black, cream, and gray. These are called natural colors, and 35% of them were used in the textbook pictures.

As shown in Table 2, the third category has the highest rate, which means that such category was given a special interest by the planners of the curriculum. Concerning the third criterion which is the " Tertiary colors ", it is observed that the colors were used in appropriate contexts which help students to understand the topic of the lesson without checking the dictionary for any new meaning.

It can be seen from the results that the textbook is taken care of the colors as they may increase students' concentration and their ability to learn and understand. Also, the researcher is mainly due to these results to the fact that the colors as a part of visual element play an important as an aesthetic sense, and maintain psychological stability for students.

CONCLUSION

It can be inferred from the results that the variety of the colors are important, and they can be stimulated the students. The present study evaluated the colors in the EFL textbook of Action Pack 12. The researcher categorized the colors into three groups. The findings of the analysis

showed that a lot of the colors which are used in the textbook are located in the tertiary colors.

RECOMMENDATIONS

Based on the findings of this study, the researcher recommends the following:

1. The designers of "Action pack" are recommended to take into consideration the fair distribution of colors among the modules.

2. Book authors are recommended to increase the number of colored pictures in the textbook.

3. Teachers should be more aware of the importance of colors in engaging their students in learning.

4. Similar future research investigating the colors in a different textbook such as the elementary stage and their preferences towards the colors is needed.

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