

A Content Analysis Of The Colors In The American Language Course Textbook That Implemented At Prince Faisal Technical College

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Abstract

This study aimed at analyzing the colors of the American Language Course textbook (ALC) at Prince Faisal Technical College in order to investigate if these colors agree with Goethe's Theory of Colors. The descriptive quantitative design is used to evaluate the colors in the ALC textbook. To achieve the purpose of the study, all the pictures in the ALC textbook were analyzed and categorized into three groups. The results showed that 55.7% of the colors were found in the tertiary color group as the first rank. The secondary color group gained the second rank with 47.6%, whereas the primary colors gained the third rank with 41.6%.

Keywords: American Language Course Textbooks, Content Analysis, Prince Faisal Technical College.

Introduction

Students can study from a variety of materials in this age of globalization. They have access to the internet, television, and even English language courses to learn (Hakim, Aryati & Kurniawan, 2020). Textbooks are one of the most often used learning tools. Everybody has access to textbooks whenever and wherever they choose to learn. Particularly for kids, the textbook becomes the primary resource in their learning process. A textbook is a teaching resource that is available in the classroom for practically all teachers. In addition to the teacher's explanation, it can help learners (Asiyah, Syafri & Hakim, 2018).

The primary source for teaching and learning in class is the textbook. Students and teachers can use the textbook as a guide. According to Mahmood (2011) textbooks can make it simple for pupils to comprehend the subject matter. The textbook has written content that has been organized logically to aid students in understanding topics in addition to the teacher's explanation in class. In this instance, the textbook functions as both a course book and a set of instructions for teaching and learning. A textbook is a lesson manual that instructors and students use to methodically follow a language course (Hakim & Abidin, 2018). According to Hakim and Saputra (2018) book includes some written

content, including exercises, reading passages, writing prompts, and grammar and vocabulary review. Additionally, it contains a lot of pictures and other graphics to draw readers in while they read it. A lot of textbooks are now released. Before using a book as the basis for a lesson in class, a teacher should evaluate it (Sarem, Hamidi & Mahmoudie, 2013).

Prince Faisal Technical College's ALC textbook plays a significant role in the educational process. Both cadets and teachers profit from ALCs if the course equips them with the abilities necessary for teaching and learning because English instruction may be inadequate without a solid course (Hutchibson & Torres, 1994). Additionally, it plays a significant role in people's life because it is simple to use whenever and whenever cadets need it. It also has a lot of benefits, like tracking cadets' development and accomplishment (Hycraft, 1998). So the leadership of Prince Faisal Technical College seeks to improve the ALC permanently because of the importance of the course in the learning process. Therefore, it is important to conduct this study to analyze the colors in the ALC textbook to find out the importance and influence of the colors on cadets' learning.

The course needs to have a wide range of colors. According to Vetter, Ward, and Shapiro (1995), giving classroom instruction some color may improve students' performance. Additionally, according to Buckingham

and Harrower (2007), employing color in the classroom is required, especially in the lower grades to engage students in learning. According to the findings of their study, pupils in grades 4 and 5 are more interested in colorful maps than those that are only black and white (Buckingham & Harrower, 2007).

On the other hand, Mahnke (1996) agrees that light colors and high chromatic contrast ones are more appealing to younger students. Mahnke (1996) argues that pictures of many colors are effective in attracting young children in basic classes. Contrarily, youngsters who concentrate on the colors may become less focused, as demonstrated in Piaget's speech, while their attention is drawn more to features like form (Otto & Askov, 1968).

There have been numerous evaluation studies on the currently taught series "Action Pack" for various grades, but none of them have examined the colors used in ALC's illustrations. Content analysis is one of the best tools available for evaluation. The outcomes of the content analysis may give course authors and decision-makers a complete picture of what changes should be made to the analyzed textbook.

Statement of the problem

According to the expert, the amount of research on colors and their influences on cadets' learning is lacking. Based on these findings, the researcher hopes to further the field of study and close the gap in the amount of literature regarding how to evaluate the colors of English courses. By examining the pictures through the perspective of

color theory, this study, as is intended, will identify the colors utilized in the ALC textbook, which may enable changes to be made.

Purpose of the Study

This study aimed to evaluate the colors used in the ALC textbook at Prince Faisal Technical College in Jordan.

Questions of the Study

This study seeks to answer the following questions:

1. To what extent do the colors of the ALC textbook agree with the color theory proposed by Goethe?
2. What are the most and least used colors in all the textbook modules?

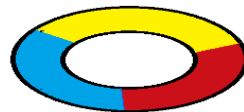
Significance of the Study

For the academic year 2021–2022, the ALC was introduced for the Prince Faisal Technical College cadets. To the best of the researcher's knowledge, this is the first investigation of the ALC colors to be conducted in Jordan. The results of this study will be beneficial to people with an interest in curriculum development. The results of the current study are anticipated to promote educational research and provide new prospects for interested academics.

Criteria of Analysis

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

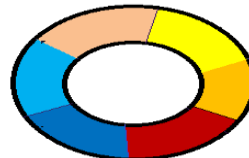
Primary colors



Secondary colors



Tertiary 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.

Limitations of the study

This study is limited to all pictures that are used in the "ALC textbook", which is taught in 2022 for cadets at Prince Faisal Technical College.

Definitions of Terms

American Language Course: the course which is employed by Prince Faisal Technical College. It has many levels. In the case of the present study, courses at level 2 will be investigated.

Prince Faisal Technical College: It is a college located in Amman whose aim is to graduate military personnel who are experts in aircraft, engineering, electricity, and other professions in many sectors of the air force.

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

Theoretical background

The theoretical and empirical options for synthesis and analysis are introduced in this section. Only three of color theory's fundamental categories—color wheel, color harmony, and color usage context—are more sensible and practical. Color theory has many concepts, definitions, and design applications. The color wheel is the subject of this investigation. The red, yellow, and blue color circle was first attempted to be developed by Sir Isaac Newton. He also created the rules for blending colors. This innovation enables white light to pass through two crystals and distort it into shadowy forms. The seven wavelengths of the visual spectrum served as the foundation for the invention of the color wheel (Bell, 2013).

Content analysis has been defined as a systematic, repeatable method for grouping numerous text categories based on clear coding principles (Berelson, 1952). It was also defined as "any technique for making inferences by objectively and systematically identifying specified characteristics of messages" Thus, content analysis is not limited to textual analysis but can also be applied to other areas such as coding student drawings or coding of actions observed in videotaped studies. In order to allow for replication, however, the technique can only be applied to data that is durable in nature. (Holsti, 1969, p. 14).

Content analysis is used to guide actions by making new and valid inferences from the data in their context (Downe Wamboldt, 1992). Content analysis was initially primarily used to evaluate the text, but later on, essentially when a sizable sample was discovered, it was utilized to examine the visual communications. Additionally, symbolic material can be examined using the method of content analysis. The current study's

analysis of the material is restricted to the hues of the images used in the ALC textbook (Rose, 2007).

Research using content analysis has some key characteristics. Before starting any form of analysis, the researcher should be systematic and objective (Riff, Lacy & Fico, 2014). The content can be coded into several categories to complete this phase (Krippendorff, 2004).

The significance of the colors in the textbook can be highlighted through the use of content analysis (Torrice & Logrippio, 1989). A lot of researches have been conducted on the significance of color and its facets, including its influence on the bodily systems of humans and the connection between color and mood and energy (Kueller & Mikellides, 1993).

There hasn't been any research done on how color affects education. Numerous studies have investigated the relationship between color and various facets of education, including students' motivation (Otto & Askov, 1968), age and color preference in surrounding environments (Jalil, Yunus, & Said, 2013), students' attention level and 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).

Despite the fact that the colors are a key visual component of the textbook, the researcher has not been able to find enough studies that examine color and attempt to assess its potential impact on student learning.

Review of Related Literature

Abu Sa'aleek, R. (2018) Conducted a study to analyze 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%.

Kasmaienezhad-Fard et al., (2017) examined the colors used in Malaysia's primary English textbook as well as the color preferences of 384 students. The study's findings revealed that primary colors received the highest rate of analysis in the images. Furthermore, the findings revealed that students prefer tertiary colors.

Roohani and Sharifi (2015) evaluated the visual elements in Interchange 3 and Top Notch 3B as the

English textbook. The study's goal was to find a balance between black-and-white and color drawings and photos, as well as to investigate the extent to which visual materials are used for decorative purposes. According to their findings, color pictures account for a large percentage of illustrations in both textbooks. According to the findings, Interchange 3 has more drawings than 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. To collect data, a questionnaire was used. The participants of the study were 80 including students at graphic design and information technology departments at first and final years of study. Results showed that the white color was found to be the most preferred color.

Mohebbi (2014) conducted a study to identify of gender-based colour differences among 7-9 years old children at single gender schools in Iran. 100 students (50 boys and 50 girls) among 7-9 years old children chosen from one all-boy and one all-girl elementary participated in the study. The findings of the study revealed significant differences appeared among boys and girls towards four colors, including blue, green, pink, and black.

Jalila, Yunus, and Said (2013) examined students' color perceptions and preferences. The sample of the study consisted of 798 students from two universities in Malaysia. To collect the data, the questionnaire was scheduled. Results revealed that both females and males preferred colors such as blue, green, and purple. Also, colors like pink and blue are preferred by females and males, respectively.

Erfani (2012) investigated the probable effectiveness of using pictorial context in ESP reading comprehension ability of Iranian university students whose syllabus mostly focuses on this skill. This study was conducted on two groups of Iranian students majoring physics. The results revealed that there was a significant difference between the mean score of the two groups. Thus, it was concluded that using pictorial context improves the ESP reading comprehension of students. Results also showed that the experimental group who received passage by pictures performed better than the control group who were not taught by pictures.

Romney (2012) analyzed business English textbooks, which they categorized into pictures as either

instructional or decorative. Three English as a Foreign Language (EFL) textbooks produced by major English Language Teaching (ELT) publishers were surveyed to determine the possible learning functions images play in the texts. The findings revealed that while many images in ELT textbooks do not have active learning tasks for students, the majority of images still had a passive learning function. The finding also revealed that most of the images in the texts were decorative.

Hill (2003) conducted a study to examine visual elements in four British ELT textbooks from the 1990s (Headway Pre-Intermediate, Upper-Intermediate Matters, Cutting Edge Intermediate, and Inside Out Intermediate). The researcher sought a balance of black-and-white and color illustrations within the main texts of the four textbooks in this study. According to the results, Headway and Matters had the highest percentages of black-and-white and color illustrations, respectively.

Ellis and Ficek (2001) conducted this study to verify findings surrounding sex differences in color preferences, and to extend this realm of inquiry by looking for possible differences in color preferences associated with sexual orientation. Data was collected based on a large sample of North American college students (1924 males and 3766 females). The finding of the study revealed that a significant gender differences were found, with the main difference being a greater preference for shades of blue by males than by females. Females, on the other hand, tended to be more evenly divided than males between preferring both green and blue.

Magableh (2000) conducted a study to evaluate the functional English of first commercial secondary class. The results showed lack of colors, grammar, role-play, punctuation, spelling, and phonetic transcription of the vocabulary, tests, visual aids and dialogues. The results revealed that the materials were interesting and logically sequenced. The exercises were suitable for the learners' levels and interests.

Concluding Remarks

After reviewing the literature on the colors, the researcher has drawn various conclusions as there were some studies that were carried out on school stages, for example (Abu Sa'aleek, 2018; Kasmaienezhad-Fard et al., 2017; Mohebbi, 2014). While there were some studies that were carried out on university students, for example (Yunus & Said, 2013). But the current study is

similar to some previous studies in categorizing the color secondary, and tertiary colors. To investigate their based on three groups (e.g., Kasmaienezhad-Fard et al., current state, the colors of the pictures in the "ALC textbook" are quantitatively examined.

Methods and procedures

The colors in the ALC textbook used at Prince Faisal Technical College are evaluated using the descriptive ALC textbook, which is used to teach Prince Faisal quantitative design. The researcher divides the colors Technical College cadets in 2022. This is shown in Table into the three groups as the following: primary, 1.

Population of the study

The population of the study is the entire pictures in the ALC textbook, which is used to teach Prince Faisal Technical College cadets in 2022. This is shown in Table into the three groups as the following: primary, 1.

Table 1. Distribution the pictures to the units of the ALC textbook

Unit Number	Unit Title	Number of Pictures
1	A Trip to New Mexico	21
2	A New Bank Account	19
3	A Flat Tire	15
4	A Family Tree	17
5	Let's Talk about the Weather	19
6	American Occupation	20
7	Famous Writers	18
8	Sports	20
Total		149

Instrument of the study

The instrument of the study was created by the researcher to collect the data. For the purpose of analyzing the colors used in the ALC textbook, the researcher created an innovative coding sheet. The pictures were coded using the different color categories (primary colors, secondary colors and tertiary colors). To determine the current state of each color in the textbook, frequencies and percentages were used to assess each color.

research's goals. The required changes were made in accordance with the recommendations and comments of the experts, completing the instrument. To find out the reliability, the inter-rater reliability was calculated. The researcher analyzed the colors into three groups. The researcher then chose a random sample of 95 pictures from the 149 total pictures in the course. The sample was analyzed by the researcher and the analyst, and the frequency of agreement and disagreement between them was then calculated 94%.

Validity and Reliability

A jury of five university professors specializing in TEFL and five Ph.D. students specializing in TEFL and measurement and evaluation specialists were provided the list of categories used in the study to establish its validity and determine whether it was appropriate for the

Findings of the study

All the textbook pictures in the ALC textbook were considered in the investigation and their color types were determined one by one from the 193 textbook pages. A total of 149 pictures were sampled for the analysis. The results of the analysis are found in table two.

Table 2. Frequency of the color pictures in the ALC textbook.

Color	Frequency	percentages
Primary Color	62	41.6%
Secondary Color	71	47.6%
Tertiary Color	83	55.7%
Another colors	51	34.2%

The colors of the pictures were assessed into three colors which do not belong to these groups were groups: primary, secondary, and tertiary, whereas the considered as other colors.

According to Table 2, the primary, secondary, tertiary, and other colors in the 149 pictures were used 62, 71, 83, and 51 times, respectively. Tertiary colors were used in about 55.7 % of the textbook pictures, ranking first, followed by secondary and the primary colors.

Discussion

This subsection shows the final result from all the perspectives to evaluate the colors used in the ALC textbook at Prince Faisal Technical College. The results of this study showed that 55.7% of the pictures in the ALC textbook used tertiary colors, 41.6% used primary colors, and 47.6% used secondary colors. There is also another group of colors in art and painting, and they include white, black, cream, and gray. These were called natural colors, and 34.2% of them were used in the textbook pictures.

According to Table 2, the third group has the greatest rate, indicating that the curriculum planners gave this subject significant consideration. Regarding the third criterion, "tertiary colors," it was noted that the colors were employed in appropriate circumstances, assisting pupils in comprehending the lesson's subject without consulting a dictionary.

The results show that the ALC textbook gives color consideration, as this may help cadets focus and improve their capacity for learning and comprehension. These findings are mostly attributable to the fact that colors, as visual components, are significant in sustaining students' psychological stability as well as their aesthetic sense.

Conclusion

Content analysis is a potent method of data reduction when performed correctly. Its main advantage is that it is a systematic, repeatable process for condensing a massive amount of information into a small number of content categories based on explicit coding criteria. It has the appealing qualities of being unobtrusive and helpful while handling massive amounts of data. Beyond simple word frequency calculations, content analysis is a highly sophisticated technique. Many word count restrictions have been considered, and techniques for extending content analysis to improve the analysis's usefulness have been addressed. False category definitions and exhaustive but non-exclusive categories are two severe errors that render content analysis useless.

The findings suggest that the variety of colors is significant and can motivate students. The colors in the ALC textbook were examined in the current

investigation. The colors were divided into three groups by the researcher. The analysis's results revealed that many of the colors utilized in the course are found in the tertiary colors.

Recommendations

There are some suggestions that might be useful for the teachers, further researchers, and also for the writer or publisher of the textbooks; the researcher suggests that instructors should be more aware of the importance of colors in engaging their students in the learning process. Moreover, the designers of ALC are recommended to take into consideration the fair distribution of colors among the units and increase the number of colored pictures in the course textbook. For future research, the researcher suggests conducting other research to investigate the colors in a different textbook, such as the schools' stage or other military colleges, and their preferences towards the colors.

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