



Learning Color Theory in Elementary School Using Basic Infographic Media During the Covid-19 Pandemic

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ABSTRACTS

COVID-19 first appeared in Wuhan, China in December 2019. The virus attacks the airways and causes respiratory tract infections. In a relatively short time, the virus spread to other parts of China and then to other countries. Responding to the impact of the spread of COVID-19, the Government of Indonesia is aggressively conducting learning media, one of which is infographics. Infographics are one of the media that can be used to attract learning to elementary school students. In infographics, there are visual elements that are also important to attract the attention of the target audience and even help convey messages or information. The method in this study uses quantitative research. The results showed that the post-test value was greater than the pre-test value, this shows that students have increased understanding of color theory after being given an understanding of color theory. Therefore, infographic media can increase students' absorption of color theory. Students' understanding of color theory can be improved with interactive learning such as relevant infographic media used during the pandemic where learning is carried out online.

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1. INTRODUCTION

COVID-19 first appeared in Wuhan, China in December 2019. The cause is not clearly known. No research has yet found the cause of the initial emergence of COVID-19. The virus attacks the airways and causes respiratory tract infections. In a relatively short time, the virus spread to other parts of China and then to other countries. In response to the impact of the spread of COVID-19, the Government of Indonesia is aggressively conducting learning media, one of which is infographics (Senjaya, 2019).

Infographics are one of the media that can be used to attract learning to elementary school students. In infographics, there are visual elements that are also important to attract the attention of the target audience, and even help convey messages or information, namely color (Senjaya, 2019). Color is an important aesthetic because it is through color that we can clearly distinguish the beauty of an object. Color can be defined subjectively/psychologically which is a direct understanding by our sense of sight experience and objectively/physically as the nature of the light emitted. (Meilani, 2013).

The development of technology and information is so significant that it forces people to change styles and techniques in teaching and learning activities. Infographics are an approach to presenting information in visual and graphic forms. By making infographics students can process the information that has been obtained, so that the information obtained is not directly used raw, but is generalized first and presented in the form of infographics (Senjaya, 2019). Infographics are referred to as visualizations of data, information, or information structures. Information presented with images is better than text. People will process information that is conveyed with images at once by the brain, while information conveyed by text will be processed linearly (Listya, 2018). The use of infographics can be applied in presentations, annual reports, research content, blogs, and newsletters. This will keep people interested because he tells them the story using visual elements that will keep their interest providing them with information that can be absorbed at a glance (Saptodewo, 2014).

The presentation of the visual variety contained in infographics can make it easier for students to understand and understand the subject matter presented. The use of infographics as a medium of learning can affect student achievement in the cognitive domain. The development of infographic-based textbooks is intended to make it easier for students to understand the material. The use of infographics will help students visualize learning materials (Reizal, 2020). Infographic media has unique characteristics in designs and content in the form of messages or materials delivered, infographic media plays a role in providing content in the form of messages or materials delivered, while the content provided will be included in symbols, images, and so on. other graphics are made as attractive as possible so that student interest increases and is more active in learning and the material provided is easy to understand (Darmawan, 2019). But in based on previous research there has been no research that discusses Studying Color Theory in Elementary Schools By Using Basic Infographic Media During the Covid-19 Pandemic.

Therefore, a development research was carried out with the title "Studying Color Theory in Elementary School Using Basic Infographic Media During the Covid-19 Pandemic. This study aims to determine the understanding of elementary school students to color theory. The method used is through interesting infographics to create student interest in learning. The quantitative approach is a suitable method for elementary school students in grades 3 and 4. The instruments used are pre-test and post-test which contain ten questions about color theory.

2. THEORITICAL FRAMEWORK

2.1. Infographics

Infographics is a general concept of presenting information which in its application is based on creativity, beauty (attractiveness), accuracy of content with illustrations, and the effectiveness of the time needed to interpret information. The use of infographics has been widely carried out in presenting information, this is because infographics can simplify information that is so complex into information that can be easily understood, infographics are also able to attract the attention of various kinds of people, the application of information in the form of infographics also has the advantage because it can be easily remembered (Miftah, 2016).

Currently, infographics are starting to develop in Indonesia. Infographics that are known to the public today are more focused on the form of delivering information presented through graphs or statistical data, but actually infographics in this case also include several basic components that are generally found in design works, including; images, color selection, symbol selection. used and how the composition of colors and shapes used so that the information presented can look attractive and meet the standard visualization criteria needed by the community (Miftah, 2016).

2.2 Color

Color is a very important component and is commonly used to beautify a work of art, especially painting. Learning to recognize colors begins when children learn to paint or draw, because by learning to draw children are unconsciously invited to learn to recognize colors. Learning outcomes Knowing colors then is not only useful for such things, but is very helpful for someone in the future to recognize various kinds of rules symbolized by colors. An example of the use of color symbols for rules is in the rules of traffic signs on the highway which apply the same throughout place in this world (Yudha, 2016).

At this time, the way children learn about colors is no longer limited to paper media, but is already computer-based. Knowledge of color is approached by looking at the digital data representation of the input image, so that any image or image entered by the user can be helped to introduce the basic colors (Yudha, 2016).

3. METHODS

3.1. Subject and Assessment

This study focuses on science literacy education to elementary school students. The participants were grade III and IV students from elementary school 010 Cidadap Bandung, West Java, Indonesia. Student information about several aspects of ability, demographics and basic knowledge of color skills obtained from observations of children and parents as well as interviews with teachers. The information obtained is using the pre-test method which contains ten questions with two answer options, namely, Yes and No via google forms. After being given the material related to the explanation of color theory, the researcher again asked questions in the form of a post-test which amounted to ten questions with the same two options, namely, Yes and No to find out how much increased students' understanding after being given material about color theory.

3.2. Infographic Teaching Procedures

Teaching takes place two meetings in one week. Each meeting has 40 minutes. In the first meeting students learn about the character of color. At the second meeting, students learn about the definition of color by using infographic media that is tailored to the needs of students. The teacher teaches color theory using interactive infographic media. In addition, the information increases students' understanding of color theory through the teaching process using pre-test and post-test.

4. RESULT AND DISCUSSION

4.1. Demographics

This research was conducted in Public elementary school 010 Cidadap Bandung, West Java, Indonesia. The first step in the study was to survey the number of students in the school by interviewing the principal. The number of primary school students recorded is 500 people. Then we selected a sample from grades 3 and 4 and obtained as many as 10 students with details of 7 men and 3 women. **Table 1** shows the data for grade III and IV elementary school students.

This demographic shows the ability of elementary school students to understand color theory. Aspects described include aspects of knowledge about color, color character and theory. The information explains the extent to which students' understanding and development can understand so that students know about color theory. To achieve success, the analysis data is taken.

MF, RS, ZK, and AN students have a fairly good understanding of color comprehension and on the pre-test questions get an average score of 60%. Meanwhile RP, AS, KS, NKK, ZFT and HR have a poor understanding of color theory so that in the pre-test they get an average value of 40%.

Table 1. Data for grade III and IV elementary school students.

Initial name	Age (years)	Gender	Class
HR	9	Male	III
RP	10	Male	IV
AS	10	Male	IV
KS	9	Female	III
NKK	10	Female	IV
ZFT	9	Male	III
AN	9	Male	III
ZK	10	Female	IV
MF	9	Male	III
RS	10	Male	IV

4.2. Phenomena in the learning process

The infographic method is adapted to the needs of students with the intention and ability to understand the understanding of the theory being taught which is carried out as follows:

- (i) In the first session, students were less able and had less interest in understanding color theory.
- (ii) In the second session, media infographics were made in an interesting and interactive way so that students were enthusiastic in learning.

- (iii) Infographics are made according to students' needs so that students' understanding gets better if they don't understand this theory at first.
- (iv) The results showed that learning about color theory experienced a pretty good understanding of the students, this can be seen from the results of the pre-test and post-test given to students via google form.

4.3. Pre-test and Post-test Results

We chose pre-test and post-test as a method of knowing students' understanding of color theory by using infographics (infographics) as learning media. This research was conducted on students to measure students' understanding of color theory.

Table 2 explained the results of pre-test and post-test of elementary school students regarding color theory material using infographic media. This questionnaire was distributed to students in grades III and IV of Elementary School, which aimed to gain insight into color theory. After that, we provided learning through infographics containing color theory. After explaining the material, the researcher redistributed the questionnaire with the same questions, namely in the form of a post-test to students with the aim of understanding the color theory material.

The results on the questionnaire show that there is an increase after being given an understanding of color theory. We found a very significant increase in student understanding as in question number two, respondents experienced an increase of 28.7% after being given material about color theory using infographic media. We found consistent data after the pre-test and post-test were given, in question number seven which did not experience an increase or decrease in percentage. This is in line with the opinion (Reizal, 2020) the use of infographics has proven to be effective with the results obtained and also infographics have an effect on students memory and thinking. It is hoped that this development media can produce learning media that are more creative, innovative, interesting, practical and acceptable to students, so that learning material can be delivered and learning objectives can be achieved (Hersita, 2020).

Table 2. Elementary school students' pre-test and post-test results.

No	Question	Pre-test score		Post-test score		Results comparison
		Yes	No	Yes	No	
1.	Are colors and shapes very important in life?	85.7%	14.3%	95%	4.5%	9.5%
2.	Can color change a person's mood?	57.1%	42.9%	86.4%	13.6%	28.7%
3.	Do colors have character?	85.7%	14.3%	86.4%	13.6%	0.7%
4.	Do colors have meaning?	71.4%	28.6%	86.4%	13.6%	15.0%
5.	Can color be produced from a mixture of colors?	85.7%	14.3%	90.9%	9.1%	5.2%
6.	Are black and white a color?	85.7%	14.3%	90.9%	9.1%	5.2%
7.	Can plants produce color?	100.0%	0.0%	100.0%	0.0%	0.0%
8.	Can rocks produce color?	57.1%	42.9%	68.2%	31.8%	11.1%
9.	Does coloring require theory?	95.2%	4.8%	95.5%	4.5%	0.3%
10.	Is it true that colors are divided into three?	71.0%	28.0%	72.7%	27.3%	1.7%

5. CONCLUSION

The conclusion of this research is that there are still some elementary school students who do not know about color theory. The results showed that the posttest value was greater than the pretest value. Therefore infographic media can increase students' fiber power about color theory. Students' understanding of color theory can be enhanced by interactive learning such as relevant infographic media used during this pandemic whose learning is done online.

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7. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

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