Indonesian Response to Covid-19 Poster as Indicator of Collective Visual Literacy (Bandung Case Study)

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Abstract. The covid-19 pandemic ongoing to this day in Indonesia, health protocol regulations established by the government to prevent transmission in the community. Various information of health protocols made by print and digital media is widely spread. However, it seems that does not have much impact, this can be seen from the increasing covid-19 transmission rate in Indonesia. It is necessary to see how the preferences of Indonesians, especially the people of Bandung who are teenagers in reading visual posters covid-19, the level of visual reading ability as a message is smeared with the level of visual literacy. The research was conducted through three poster themed covid-19 resulting from the application of visual argument methods which is listed on questionnaire questions to measure the visual literacy capabilities of respondents. The analysis showed respondents aged between 18-24 years were more likely to choose posters with large portions of text, other results showed if the text was removed from the visual (visual argument method without text), the respondent could not capture the message on the poster. This has an impact on understanding the captured messages. This condition shows low levels of visual literacy among teenagers in Bandung.


1. Introduction
Indonesia and other countries in the world from early 2020 to today are still facing the Covid-19 pandemic. The Indonesian government, through the Ministry of Health, the Covid-19 Task Force and the Covid-19 and National Recovery Committee, are trying to control the spread of Covid-19 transmission in the public through information about various kinds of health protocols such as guidelines, health standards and others in an effort to prevent and control Covid-19. This information is published through both print and digital media. Every institution in Indonesia, both government and private, from the central to regional levels, has produced information media regarding the health protocol. The role of the information media is very important in disseminating information about health protocols during the Covid-19 pandemic, for this reason it is very important to consider the elements and principles of visual communication design in a visual communication medium.

Information media is made so that messages can be conveyed to the public, so that the impact of the information media on understanding the message is applied in everyday life. However, with the massive distribution of information, it seems that it does not really affect the level of public understanding of the dangers of covid-19, the level of the number of exposures to covid-19 in Indonesia is still increasing, especially for people aged 19-30 and 31-45 years, the data for November 2020 was recorded as much as 24.7% and 30.6% have positive status [1]. The level of people's visual reading skills, especially at the age of 19-30 years of information about Covid-19, in this case digital
posters, has a close connection with their level of visual literacy, as stated by Harrison [2], visual literacy is the ability to read, write and create visual images. From this it is necessary to look at the preferences of the Indonesian people, especially the people of Bandung aged around 18 to 24 years in reading visual posters about Covid-19. The research about analysis of poster created by Student is not find in any paper. So this research is important.

Based on this problem, research conducted to determine the level of visual literacy of the people of Bandung City through 3 covid-19 themed poster works made by teenagers, it is necessary to know that the three poster Covid-19 are the best work from the training results of the Community Service program conducted online by lecturers Visual Communion Design Study Program from April to July 2020. The poster has been published on the bit.ly/ide_asli webpage [3].

2.Method
Research on the visual literacy level of the people of the city of Bandung was carried out using the visual argument analysis method which is contained on picture as question in quisionaire. Visual arguments are defined as visual communication designs that combine verbal elements, can be text as in graphic or sound design products such as on video, film, television, animation or other visual elements [4]. Ramage, Bean, and Johnson [5] stated that in order to understand an image can produce an argument, designers must understand how the four basic components of visual design: typography, layout and layout, color, and coherence images produce a visual text. Blakesley and Hoogeveen [6] state that visual elements can stand alone as information and arguments, regardless of their relationship with verbal elements. On this research, the three posters covid-19, primary on question one used this method, separate the visual on text, this method was used on previous research. “Inspired by the writings of the experts mentioned above, the authors propose a method without text, namely visual evaluation argues only against visual elements without linking them to verbal elements” [7].

Namely testing the attachment or anchoring between text and images in a visual communication design product, in this case three covid-19 themed posters. People around 18 to 24 years old as many as 189 respondents were tested for their visual literacy levels through a covid-19 themed poster through a questionnaire. The questionnaire posed consisted of three questions related to their visual literacy, the three pictures were accompanied by a picture of the three best posters created by PKM youth participants by the Visual Communication Design Study Program. The three questions were asked to see their visual literacy level with the direction of the question on their ability to relate the text and visual elements contained in the three images on the poster. So to measure the level of visual literacy of the people of Bandung used the method of visual argument through covid-19 posters that omitted the text from the visuals, to see if the public can still anchor the image with the poster theme, whether the community can still capture the message contained on the poster even if the text is omitted. through the questionnaire of each question using the three poster images can be known the result, among the three selections of images which posters can still be anchored on the theme of Covid-19, and which posters are not.

3.Result And Discussion

3.1 Reading Visual and Visual Literacy
Our lives today depend on visuals, this is supported by advances in information and communication technology, where every human being has a technological device connected to the internet network that can display various things based on visuals. In this case Piliang [8] states “The development of various digital information media, which is running at high speed, the world is now filled with signs, images and information that reproduce rapidly on a global scale so that it fills the spaces in everyday life and we are forced to respond”. The existence of mobile devices connected to the internet makes our lives filled with information in visual form. Apart from the sophistication of information technology and human communication, the visual devices, they have lived visually. Schirato and Webb [9] state “Very often, seeing is taken for granted, under a what you see is what you
get notion that relies on the naturalness of vision; of course, i know what happened, says the eyewitness. I was there, wasn't i? I saw it with my own eyes ".

Humans with visual abilities are accustomed to observing the life around them visually supported by advances in information and communication technology with the internet network and screen devices and computers bringing us to a new culture, namely visual culture. Mirzoeff [10] states the definition of visual culture as follows; "Visual culture is not just a part of your everyday life, it is your everyday life". In connection with this definition Schirato and Webb [9] say we can understand visual culture as incorporating everything we do, because everything we do includes navigating the things we see". What is included in visual culture is is most profitably understood as all those visual artefacts, natural forms and way of thinking that make up perception in our everyday life, as well as the interdisciplinary technologies of analysis that can be applied to make sense of them.

Visual artifacts and our interpretation of them are closely related to viewing activities in everyday life that involve psychological. Every perception and meaning is the product of psychological, and above all, cultural contexts. See things in terms of a set of resources that we take from our cultural context. When we see objects and our perceptions shape the meaning of those objects, it is an act of visual reading. However, different perceptions and meanings of the objects we see depend on the background and perspective of each person [9].

An image, whether in the form of photography, painting, illustration, television shows and others, can be perceived as an image with educational, informational and other content, the result of one's interpretation of the image depends on the level of knowledge of the viewer. The key to understanding images in their entirety is a skill called visual literacy, defined as the ability to recognize and understand the messages communicated in visual formats as well as the ability to create our own messages in a visual medium [11].

The term visual literacy was first stated by John Debes in 1969, as the founder of the International Visual Literacy Association: “Visual Literacy refers to a group of vision-competencies a human being can develop by seeing and at the same time having and integrating other sensory experiences. The development of these competencies is fundamental to normal human learning. When developed, they enable a visually literate person to discriminate and interpret the visible actions, objects, symbols, natural or man-made, that he encounters in his environment. Through the creative use of these competencies, he is able to communicate with others. Through the appreciative use of these competencies, he is able to comprehend and enjoy the masterworks of visual communication.” – [12].

Visual literacy is an organic concept that naturally requires us to redefine its meaning as a changing world. Digital technology has greatly impacted our understanding of visual literacy, as we now see children growing up with tablets and computers and what appears to be a highly developed visual literacy instinct [12] (see Figure 1).

![Figure 1](https://visualliteracytoday.org/what-is-visual-literacy/)
3.2 Visual Argument
A visual in both print and digital media, especially in this case the Covid-19 digital poster, contains design elements including text, images, colors and graphic elements which are placed based on layout considerations based on design principles such as balance, darkness, rhythm, contrast, symmetry, asymmetry and others. Besides that, the most important of these elements is the content of the argument. The arguments presented through visuals contain messages, in this case Birdsell and Groarke [12] state that “Some visual arguments are made up entirely of visual elements, but many incorporate verbal components. Authors attempting to construct convincing arguments in real life use whatever means are at their disposal. They tend to see the verbal and the visual as complementary modes of communication, combining them in ways that build on their respective strengths”.

The covid-19 poster has a content argument consisting of a combination of verbal and visual elements and use it as a power of communicating messages, both information and persuasion. As stated Birdsell and Groarke [13] “Images play a key role in many kinds of argument, for a variety of reasons. In some cases, they more accurately and concisely present information and evidence that is relevant to an argument. In other cases, they have rhetorical advantages and are more forceful and persuasive than words. According to Birdsell and Groarke above, Barnet and Bedau [13], one of the functions of the image included in the written argument is for the image to be persuaded through the emotional ization of the viewer. In line with the statement, Grancea [14] states that elements of images in visual communication media, in addition to serving to touch the viewer's emotions, also corroborate, explain, narrate, or illustrate messages contained in verbal elements. Visual communication is closely related to visual arguments, visual design principles are arranged based on the context of the message construction, visuals that are built based on this particular context in the form of symbols, metaphors containing messages or meanings. Regarding the visual argument, Blair [4] states that;

“A visual argument is then an argument at least some of the essential elements of which are not expressed or communicated in a natural language, but instead or expressed or communicated pictorially, by images and/or nonverbal signs or symbols. So the ‘visual’ and the ‘verbal’ of visual argument and verbal argument here denote the manner in which the argument is expressed or communicated. By this definition, most of what count as visual arguments are actually hybrids or ‘multimodal’: they will include verbal components, but their successful expression depends also on their visual components. They can be understood only by taking the visual”.

In this regard, visual argument is a visual communication analysis method. Visual argument is used to find the meaning or message content of the relationship between text and images in a visual communication such as on a Covid-19 poster.

3.3 Bandung People and the Covid-19 Poster
The city of Bandung is the capital of West Java province with a population in 2019 of around 2,507.89 [15]. With the third largest population on the island of Java after the cities of Jakarta and Surabaya, the risk of contracting covid-19 during the pandemic in Bandung is higher. The number of cases of the spread of covid-19 in Bandung City, the total number of confirmed cases as of November 17 is 2616 [16].

The central and local governments have prevented the transmission of covid-19 through various means, one of which is disseminating information through information and persuasion media, both printed and digital (see Figure 2). The most common media for information or persuasion regarding health protocols is the digital poster media. The posters are issued from the ministry of health to institutions in the city of Bandung as in the following picture.
If you look at the number of confirmed covid-19 above, it seems that the covid-19 media poster that has been distributed has not had a significant impact on reducing the spread of covid-19 in the city of Bandung. This is one sign that the public may not understand the contents of the message on the poster so that their hearts are not moved to follow the rules set by the government.

The Visual Communication Design Program from April to July 2020 held a PKM program in the form of training in making posters for adolescents aged 18 to 24 years and the results are displayed on the bit.ly/ide_asli web page. The training produced the 3 best covid-19 poster works according to the assessment conducted by the jury. The following is a covid-19 poster created by training participants (see Figure 3). This poster is used to see the visual literacy level of the people of Bandung, especially adolescents, through questionnaires.

Figure 2. Information Media of Social Distancing Poster by Ministry of Health of the Republic of Indonesia.


Source: https://sites.google.com/email.unikom.ac.id/ideas/pameran1520?authuser=0
3.4 Visual Literacy Test Results Through Questionnaire

The questionnaire was conducted to see the visual literacy level of adolescents in Bandung. The questionnaire was conducted on 189 adolescent girls and boys aged 18 to 24 years. The questionnaire questions were linked to the covid-19 posters, the best work of covid-19 poster training. Questions related to the covid-19 poster visuals consisted of 3 questions. Question one used poster Covid-19, the text was removed from the visual (visual argument method without text), to test whether respondents can still hook up images with the theme of covid-19. Question two, poster Covid-19 used text, same with question one, this question to test whether respondents can still hook up images with the theme of covid-19. Question three, asking respondents to sort which poster is best, is Chosed by the clarity of the message and the visuals.

The first Question consist of: which picture below are correlate with Covid-19 theme? The answer is available on points, Figure 1, Figure 2 and Figure 3, see Figure 4 below.

![Figure 4](https://docs.google.com/forms/d/1RoyDiFLDUtWJzo-Atg8zj9Cc_t-TvJiyNpFbaQPZxg/edit)

**Figure 4.** Question 1 through the visual covid-19 poster

Source: https://docs.google.com/forms/d/1RoyDiFLDUtWJzo-Atg8zj9Cc_t-TvJiyNpFbaQPZxg/edit

The second Question consist of: which number of picture below are correlate with Covid-19 theme? The answer is available on points, poster 1, poster 2 and poster 3, see Figure 5 below.
Figure 5. Question 2 through the visual covid-19 poster
Source: https://docs.google.com/forms/d/1RoyDIFLDUtWJzo-Atg8zj9Cc_t-TvJyNpFbaPOpZxg/edit

The third Question consist of: the poster sequence of the best is? The answer is available on points, poster 1-2-3, poster 1-3-2, poster 2-1-3, poster 2-3-1, see Figures 6 - 9 below.

Figure 6. Question 3 through the visual covid-19 poster
Source: https://docs.google.com/forms/d/1RoyDIFLDUtWJzo-Atg8zj9Cc_t-TvJyNpFbaPOpZxg/edit
**Figure 7.** The question is which picture below are correlate with Covid-19 theme? The diagram showing the relationship between the image and the Covid-19 message, Poster 1 shows 9.5%, Poster 2 shows 20.6% and Poster 3 shows 69.8%.

**Figure 8.** The question is which number of picture below are correlate with Covid-19 theme? The diagram shows the relationship between the visual poster and the Covid-19 message, poster 1 shows 11.1%, poster 2 shows 9% and poster 3 shows 11.6%, all posters show 66.7%.

**Figure 9.** The question is the poster sequence of the best is? A diagram showing the best covid-19 poster sequence. 28% were Poster 2-3-1, 21.7% were Poster 2-1-3 and 12.7% were Poster 1-3-2.
The results of the questionnaire show that question 1, presents a visual poster without text, showing that poster 3 is more able to show the relationship between the image and the Covid-19 theme as much as 69.8%, they can still recognize the covid-19 theme by the masker and the spray bottle which correlate with covid-19 phenomenon. But for poster 1, they can't correlate images of women sleeping in chairs with the theme of covid-19, they can't relate the image as a sign of living in a house that is actually closely related to the theme of covid-19, this is shown with a very low percentage of 9.5%.

Question 2, presents a visual poster complete with text and images, showing all posters, both posters one, two and three related to the Covid-19 theme, as much as 66.7%. Question 3, presents the visual poster in the best order in the sense that the combination of text and images is easy to understand with the order of posters one, two and three, namely the highest order of 2-3-1 posters as much as 28%, poster order 2-1-3 as much as 21.7%, the order of posters 1-3-2 was 12.7%, this result shows posters with more text tend to be more likely to be chosen as the best posters, this shows respondents more easily understand poster messages with a large portion of text, it is meaning the respondent's reliance on text is still large and this state identifies that their visual literacy is low.

4. Conclusion
Harrison and Moulton's statement emphasized that the level of visual reading skills as a message correlates with the level of visual literacy of the community, in this case the ability of the people of Bandung to read the visual covid-19 poster correlates with their level of visual literacy as measured by questions that contain linkages. Between text messages and images in the Covid-19 visual poster through a questionnaire. Questionnaire results showed very low levels of visual literacy because poster 1, 9.2%, showed very low levels of understanding of respondents, they could not anchor visuals with the theme of covid, visual images of women sleeping on couches could not be recognized as part of the phenomenon of covid 19 which is living at home. For the 2nd poster, 20.6% were less able to recognize images related to the theme of covid 19, the image of the theme that is the image of the earth close to the word pandemic and patterns such as corona virus in images such as the moon. Posters 3 gets the highest number of 69.8%, the image of the three respondents can recognize the image related to the theme because there are clearer clues than the first and second images, namely the object mask and spray bottle that can be quickly anchored to the phenomenon of covid-19. Thus, these results indicate that the age of the respondents between 18-24 years tends to choose posters with a large portion of text. The results of the analysis also show that if the text is removed from the visuals, the respondent cannot capture the message on the poster. This has an impact on understanding the messages captured. This condition shows us that there is a low level of visual literacy among adolescents in Bandung. From the results of the questionnaire, it also shows that the respondents have not considered rhetoric, the relationship between text and visuals, further research still needs to be done.

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