

# Visual Heatmap Analysis of Happy Meal Advertise on Citra Pariwara 2022 Award using InstantEye Tracker

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**Abstract.** Understanding how the audience perceived the message in the media is still an interesting discussion. It can study how to communicate the idea and how the message perceived may change all the time, and how to analyze it. Involving technologies in analyzing processes can make valuable input for communication media artists. The objective of this research is to analyze one of awarded advertise creations by mapping the audience's visual heatmap using InstantEye Tracker. The existence of eye-tracker technology makes it possible to obtain more objective information about how a visual communication design works, such as an advertisement received by someone. With 31 participants consisting of 14 men and 16 women, this study shows clear differences regarding the heat areas between men and women when receiving information on happy meal advertisements. Although, in general, the heat center is in the middle of the media, men tend to focus on the top left and the center. Meanwhile, women focus on the center and move randomly in the four quadrants of the image area. It relates to how the organization and composition of visual elements through design principles in visual communication design works that are appropriate to be captured by the audience.

## 1 Introduction

Visual Communication Design (DKV) is a description of the media processing process in communicating about expressing ideas or conveying information that can be read or seen. Visual communication consists of a combination of art, symbols, typography, pictures, graphic designs, illustrations and colors in its delivery. In various industries, visual communication works that are needed are creative, touching, and right on target in communicating certain ideas and goals [1].

Visual communication work plays important role in many industries to communicate their product to the consumer target [2]. In last 10 years, the communication has changed and rely on digital-based tools and media [3]. This development allows the creator to produce a unique work and spread it directly to target audience [4]. In addition to digital-based communication media, high-tech products continue to develop and become technologies that can be used by anyone. This encourages visual communication design to be adapted to a fairly broad target and audience. Demands for greater creativity and uniqueness in producing communicative works are important, especially in digital works.

The development of digital technology, including in visual communication works, opens up opportunities to better understand how a visual communication design goal is received by the target audience. Utilization of data analysis techniques can be applied so that the

assessment of a work is not only based on perception but also based on a more objective and data-based assessment.

One technology that is being developed and widely used to analyze a person's response digitally is eye-tracking [5]. This technology makes it possible to detect a person's eye movements when interacting with something (such as websites, applications, and others). Eye-tracking technology utilizes sensors both eye tribe, intel real sense depth camera, and others.

This kind of technology is an expensive technology, but the detection results provide very valuable information, and can be utilized in various types of fields [6]. Research that utilizes eye-tracking is starting to increase, although it is still limited due to the relatively expensive price and requires expertise in interpretation.

The marketing era which is very open requires advertisers to sharpen their advertisements [7]. It part of the promotion mix which still has an impact on social and cultural life in society. Since the characteristics of today's digital society will be to interact from and to various directions, so that advertising is no longer a thing that is hidden, far-fetched and even fake. Advertisements should provide information and promises that can be kept, even though they have to appear in high aesthetic, imaginative, smart and memorable packaging [8].

The discussion on the Visual Heatmap Analysis of Happy Meal Advertise on Citra Pariwara 2022 Award

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using InstantEye Tracker is motivated by the increasing integration of visual communication design works into technology products used by the general public. Of course, this type of work has a slightly different purpose from works of art, which aiming to produce unique works of art while being able to communicate the brand, function of the product, and become an identity for the user of the product. Assessment of the success of the current work is more based on perception. The existence of eye-tracker technology makes it possible to obtain more objective information on how a piece of visual communication design, such as an advertisement, is received by someone. Assessment of visual communication design works or advertisements through experimental designs using an instant eye tracker is able to map the audience's field of view of design works or advertisements. This relates to how the organization and composition of visual elements through design principles in advertisements or visual communication design works according to what is captured by the audience. Here are some of the benefits of using the experimental design method using the InstantEye Tracker:

Identify important visual and verbal elements in advertisements using InstantEye Tracker technology, can give information an ad attracts the most attention of consumers, such as certain headlines, images or text. This can help the creative team at the advertising agency to optimize the most important and attention-grabbing advertising elements. One of the things done by this eye tracking method is to investigate the effect of various ways to reveal brand placement on the viewer's visual attention, use of persuasion knowledge, and brand response [9].

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Improving the user experience, advertisers can understand how consumers interact with advertisements or visual communication design works as well as a method for identifying usability problems that arise from audiences. Measuring visual activity using the InstantEye Tracker also makes it possible to estimate the duration of how long it will take to pay attention to certain elements, this of course greatly affects audience understanding and action [11].

Its important to understand consumer preferences and how consumers interact with advertisements. Those information will help the advertisers to optimize their advertisements and reach targeted audience correctly. InstantEye Tracker technology can provide important information about cognitive and emotional responses of individuals and groups that lead to objective assessments of advertisements [11].

Utilization of InstatEye Tracker technology will provide direction for the creative team at the advertising agency in the creative process of creating advertisements in paying attention to messages by organizing visual and verbal elements in a more

structured and measurable manner. The InstantEye Tracker experimental design method also provides information that the point of attention of visual elements is very different for each audience. Utilization of this technology will strengthen visual ideas that evoke the imagination of the viewers [12, 13], especially if they are composed using the previous heatmap analysis

InstantEye Tracker can help ad creators and advertisers to understand how consumers interact with advertisements or visual communication design works, improve message effectiveness, improve user experience, and find out consumer preferences [14].

The use of eye-trackers in visual communication design work has never been done and the methodology and model have not been established. Data-based analysis of digital visual communication works to communicate high-tech products is important [15].

Likewise, in assessment awards such as Citra Pariwara 2022, the InstantEye Tracker method can be very helpful for the jury team to determine which ad will win, in addition to evaluating it from a very qualitative aesthetic point of view. In this study, the objective was to find the difference response between man and woman to same ads work which was nominated in Citra Pariwara 2022.

## 2 Methodology

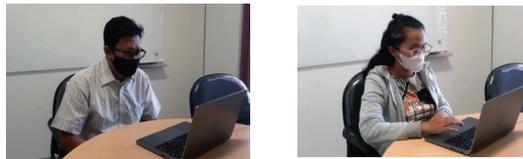
This Happy Meal advertisement heatmap analysis was carried out to assess how the differences respon by gender. Assessment was conducted by involving 31 respondents consisting of 14 men and 16 women. The visual communication design work used in this study is the advertisement of the Happy Meal, Mc Donald advertisement version of "Mia and Sisters's Happiness". This ad is a creative ad category that only displays visuals without much text, like display ads in general (Figure 1):



**Fig. 1.** Happy Meal advertisement version of "Mia & Sister's Happiness".

The purpose of this activity was to revive the visual experience of the audience in their interaction with the symbol or visual identity of the Happy Meal product, which is a product variant that targets parents and children as the secondary target. Experimental activities were carried out in one room alternately using digital devices (Mcbook Pro) for the same duration under standard room lighting.

All participants asked to observe the ads work as shown in Figure 1. that has uploaded to InstantEye-tracker website. Participant's eye movement was recorded through InstantEye-tracker, after the recording process, each participants give their opinion about the art ads. The result of eye movement of participants can be showed individually or all at once. Figure 2 showed how the study was conducted with male and female participant.



**Fig. 2.** Participants of the study.

The analysis consist of heatmap based on eye movement all male participants and female participants. The map will plot into 4 quadrans to help to get a conclusion whether male and female participants has similar response or not.

Eye-tracking is a tool that is starting to be commonly used in usability assessment. This technology can capture eye movements, even assess the emotional response of the participants. The application of this technology is increasingly widespread, and is widely used for intelligent marketing, setting display layouts or digital products, or layouts for placing products on sales shelves. Some researchers have begun to use it in art products, but this application does not yet have a standard to obtain results that can be used as a reference, as well as in visual communication design works.

The application of eye-tracking technology is starting to become a trend in the appraisal of works of art, but no one has yet used it for visual communication design works. This research will be very useful both academically and practically.

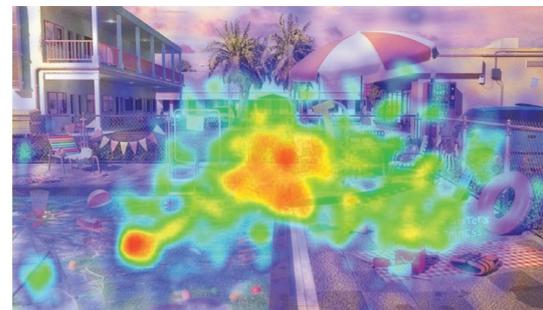
### 3 Result and discussion

During the data collection process, all participants eye movement was recorded using web-based eye tracker. Analysis of the results of the eye-tracker is a of a heatmap and visible area that compared to the target objectives, Figures 3 and 4 shows the results of male and female viewers.

The movement of male participants tends to see the add from right hand and shift to the center. Female participants have different pattern (Figure 3.)

The movement of female participants tends to see the add from center and spread to the right area (Figure 4). Data recording the use of this instant eye tracker provides clues, that the audience has a different tendency in determining the coordinates of the direction of view on visual objects, including the heatmap area and visible area. The trend of different heatmaps is shown from participants with different genders. The male audience has more than 80% uniformity in the same heatmap area, while the female audience is

represented by a heatmap that spreads over all visual area objects.



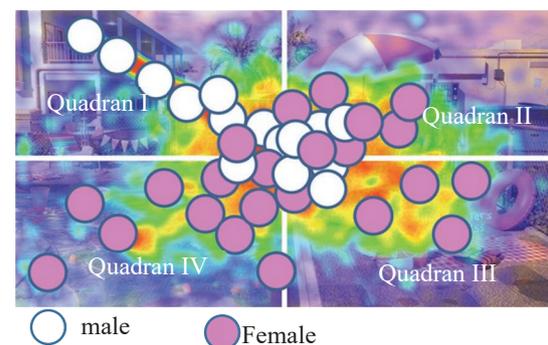
**Fig. 3.** Heatmap male participants.



**Fig. 4.** Heatmap female participants.

#### 3.1 Gender audience and heatmap quadrant

This study showed that there were direction in the visual communication design work assessment activity and a very close relationship between the gender of the audience and the visual elements displayed in the visual communication design work. In general, the use of this eye tracker experimental method will classify that gender group greatly influences the determination of visual tracking coordinates. So that this method can be considered in judging the Citra Pariwara awarding in the future. The difference between male and female describe in following Figure 5.



**Fig. 5.** Instant-Eye tracking result (male and female).

The quadrant of heatmap location division for male and female audiences has a very striking difference. The first quadrant is an area that really attracts the attention of the male audience, then it concentrates to the middle. While the visual areas that attract the attention of the female audience spread to all quadrants except the first

quadrant. However, the two concerns meet in the middle, where there is a focus of interest from the advertisement work, namely in the form of the visual identity of the Happy Meal product “Yellow Smile”.

Further discussion, which is a series of Happy Meal ad heatmap analysis using the experimental design method using the InstantEye Tracker, is how to convey recommendations that;

- 1). The selection of advertising ideas which includes the selection of visual and verbal elements is an important consideration, which will differ between male and female audiences.
- 2). The male audience has a tendency to focus more on the main visual object which is marked by size, color, simple composition by drawing a simple and directional flow toward the confluence of all quadrants. While the female audience has a tendency to direct their gaze to all visual elements in advertisements. Requires more duration to achieve the main visual.

### 3.2 Good is the enemy of great

Creative advertising competition is an agenda that challenges creative people in advertising agencies. They are very aware, have an open mind and are able to recognize great ideas even when they are not easy for many people to think of [8]. Simply put, the purpose of creating advertisements or creative visual communication design works will greatly impact the communication objectives of these advertisements. The creative team and the strategy team will usually limit the scope of the ad by determining the audience's key response after seeing the ad. But will it be measured in a concrete way that can be shown with valid data? Of course not, most assessments of the success and effectiveness of advertising or visual communication design work are determined from estimates and based on the judgments of a team of experts and a jury. Screenwriter Bill Bernbach always comes up with unexpected and irrefutable advertising ideas, which are not only good, but go beyond even marketing ideas [8]. However at that time it had not been measured concretely and recorded.

So this analysis is also based on the problem and the possibility of finding ways to extract new advertising ideas by applying two basic strategies that are commonly carried out in art research, in this case advertising art, which include: first looking at the physical work of art (advertising), and the second is through exploring the context of the setting (space and time) when the work is related [16, 17]. Also the application of technology-based methods in response to the development of the digital world today where advertisements and visual communication design works are scattered on smartphone screens and other digital devices [18, 19].

The limitation of this study is that there is no comparison between expert respondents and general respondents. Henceforth, similar research can be carried out by adding respondents from experts in the field of art ad.

## 4 Conclusion

Eye-tracking is a tool that can capture eye movements, even assess the emotional response someone. In this study, the movement of female participants tends to see the add from center and spread to the right area. Data recording the use of this instant eye tracker provides clues, that male and female has a different tendency in determining the coordinates of the direction of view on visual objects, including the heatmap area and visible area. The male audience has more than 80% uniformity in the same heatmap area, while the female audience is represented by a heatmap that spreads over all visual area objects.

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