

Influence of Visual Composition on Viewer Attention and Perception in Visual Art

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Abstract: *The role of visual composition is essential in determining attention and perceptual reaction in visual arts. In this study, we examine the effect of different styles of visual composition on attention and perception from a viewer's point of view using an experimental method involving survey questionnaires. A set of four visual images with diverse compositional structures were shown to the participants through the online questionnaire created using Google Forms. The responses were scored based on questions relating to attention capture, visual interest, focal focus, compositional structure, and visual appeal on a scale of 5 points. The results revealed that various compositional forms were responsible for varied responses from viewers. Minimal and balanced composition forms exhibited relatively more involvement on the part of the viewers, while the high contrast forms contributed to attracting their attention immediately. This study reveals that the compositional form, point of focus, simplicity, and contrast play vital roles in viewer attention.*

Keywords: Aesthetic preference; Composition theory; Viewer attention; Visual art; Visual composition; Visual perception.

I. INTRODUCTION

It is clear that the process of visual art cannot exist without composition since this element is crucial in determining the direction of vision of the viewer. The term “visual composition” means the combination and organization of visual components of an artwork including such elements as line, shape, color, texture, balance, contrast, space, and focal point. It can be assumed that the arrangement of the mentioned visual components can affect considerably the way viewers see and feel the image (Arnheim, 1974). Viewer focus is an important psychological component of visual perception. As natural beings, we possess selective attention abilities that are more attracted to visual images possessing powerful focal points, contrast, symmetry, spatial arrangements, or even simplicity. In visual arts, the use of specific compositions in visual art design becomes an effective tool to create emphasis, hierarchies, movement, and emotional response among other important aspects. The connection between visual composition and viewer attention has thus formed one of the key concepts explored in art theory, visual communication, psychology, and perceptual studies (Wei et al., 2021). The psychology of visual perception is about how people perceive and arrange their visual information from the environment. The concept of gestalt psychology offers a theory that helps one understand how perceivers arrange visual components into a single composition. Visual perception includes perceptual principles such as proximity, similarity, continuity, closure, figure-ground distinction, and balance (Chen et al., 2024; Wagemans et al., 2012). These perceptual principles guide how people interpret visual information. Perceptual theories are extensively used in visual art and design to arrange visual information effectively. Therefore, arrangement of the composition is a very important aspect of visual communication that affects the audience's attention as well as perception. Various kinds of composition styles will have different impacts on the perceptions of viewers. For example, symmetrical compositions usually imply a sense of harmony while asymmetrical compositions give a feeling of motion (Ma et al., 2024). The simplicity of minimal compositions, which features fewer elements visually and greater negative space,



could aid clarity through eliminating distractions. Likewise, a high-contrast composition is guaranteed to draw visual attention because of differences in tonal contrast and focal point. The impact of such compositional techniques not only hinges on their intent by the artist but also by the perceptive reaction of the viewer. Increasingly, research interest has been directed towards studying viewer behavior in relation to digital and online media. The increased use of digital art, imagery in social media, visual advertising, and online communication is making it increasingly necessary to study viewer attention with regard to compositional aspects of visual media. Such approaches allow researchers to evaluate visual attention patterns among diverse participants in accessible and controlled formats (Ma et al., 2025). Previous studies related to visual perception and composition have mainly focused on eye-tracking analysis, design principles, cognitive psychology, and aesthetic preference. However, comparatively fewer studies have examined viewer attention toward different visual composition styles through simple experimental survey-based approaches within the context of visual art. Understanding how viewers respond to various compositional arrangements may provide valuable insight into artistic communication, visual design strategies, and perceptual engagement (Quadri & Rosen, 2021; Beder et al., 2024). Therefore, the present study aims to investigate the influence of visual composition on viewer attention in visual art using an experimental survey-based method. Four photographs with various compositions were shown digitally using Google Forms to the viewers, and their responses were collected using a set of questions based on structured statements concerning attention attraction, visual interest, focus clarity, and aesthetics. This research is an effort to explore the effect of varying compositions on perceptual responses and preferences. The results of this study may provide insights into the connection between visual compositions and viewer attention. In other words, in the context of the arts. This paper will be very helpful for artists, designers, visual communicators, and researchers who want to understand composition theories, visual perception, and visual art audiences.

II. MATERIALS AND METHODS

2.1 Materials

2.1.1 Visual Stimuli Visual Stimuli and Visual Artworks/Imagery

Four visual artworks/imagery with varying compositional structure have been utilized in this experiment as visual stimuli. The selected images varied in terms of subject matter, spatial organization, focal emphasis, visual complexity, color distribution, and overall composition. The visual images/stimuli used in the experiment were either digitally developed or sourced from royalty-free visual images/stimuli. All the selected images were uniform in terms of image resolution, dimensions, orientation, and image type/format.

2.1.2 Questionnaire Design

A questionnaire was constructed to analyze the attention and perceptual responses of viewers to various visual designs. This was formulated based on the principles of visual perception, visual design, and the principles of visual attention. Some of the aspects measured in the questionnaire include:

attraction of immediate attention,
visual interest,
focus clarity,
composition, and
aesthetic quality.

Sample questions in the survey were:

"This image attracted me immediately.

"I liked the arrangement of the image.

The main part of the image was easy to notice.

This image kept my interest while viewing it.

I found this image visually attractive.

Responses were recorded using a 5-point Likert scale:



- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neutral
- 4 = Agree
- 5 = Strongly Agree

2.2 Methods

2.2.1 Research Design

This experiment used an experimental survey research methodology to explore the effects of visual composition on the audience's attention to visual art. Various types of compositions were provided to the subjects using digital means, while their perceptions were gauged through an online survey questionnaire.

2.2.2 Participants

Participants were selected using a convenient sampling technique by distributing the Google Form survey online. Participants from varying educational levels willingly took part in the research. The majority of the respondents in the survey were between 18 to 30 years of age with good eyesight.

2.3 Experimental Procedure

The experiment was conducted on Google Forms online. The subjects were supposed to examine four images in sequence in the course of filling out the online form. They then had to give answers about their attention, perception, and reactions to a set of questions in the form. At the end of the test, the participants were required to select one of the four images that captured their attention the most.

2.4 Data Collection

Primary data was gathered based on the answers provided by participants via an online survey form and ratings scale. The secondary data regarding visual design, gestalt psychology, perception, and viewer attention was gathered from books, scientific publications, and other scholarly research sources.

2.5 Statistical Analysis

The gathered data were analyzed using various descriptive statistics, namely percentage, mean, frequency distribution, and standard deviation. Evaluation of the difference between the various compositions was done using charts and basic statistics analysis using MS Excel with the Duncan test method.

III. RESULTS & DISCUSSION

3.1 Demographic Profile of Participants

The total number of participants who participated in the online questionnaire using Google Forms was 49 participants. From the demographic results, it was determined that the participants were from various age groups, with the major percentage falling within ages 22-27 (Figure 1). It was found that the largest number of participants belonged to the age group 24 years (20.4%), second being age group 23 years (18.4%), and third being age group 27 years (14.3%). Diversity in the age groups allowed diversity in the perceptual reactions of the participants towards the visual compositions. When analyzing the gender distribution of participants, it was noted that the majority belonged to female gender, which made up 79.6%, while males comprised 18.4% (Figure 2). Minor participants, that is, 2%, did not want to reveal their gender.



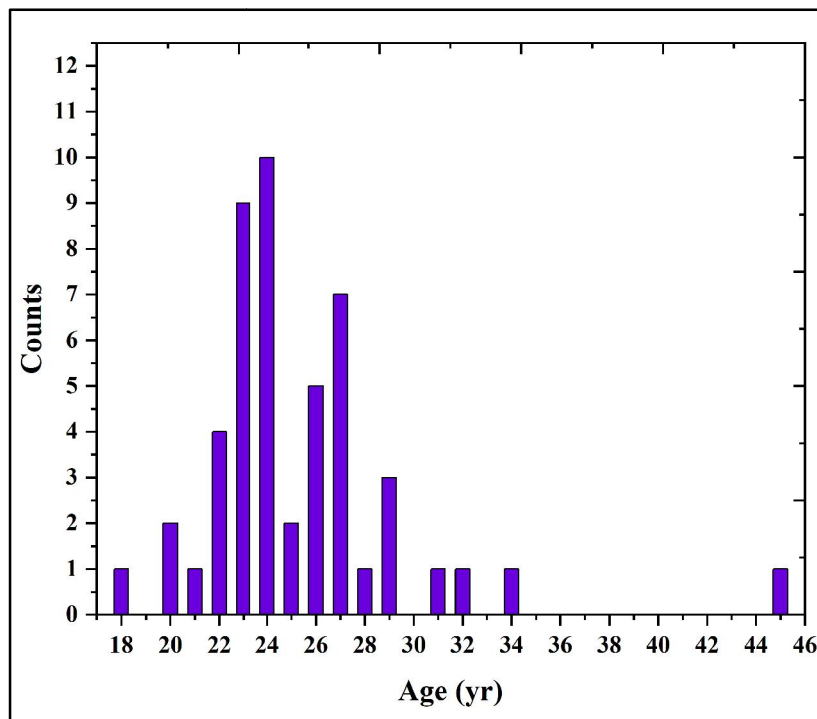


Figure 1.Age distribution of participants involved in the online visual perception survey.

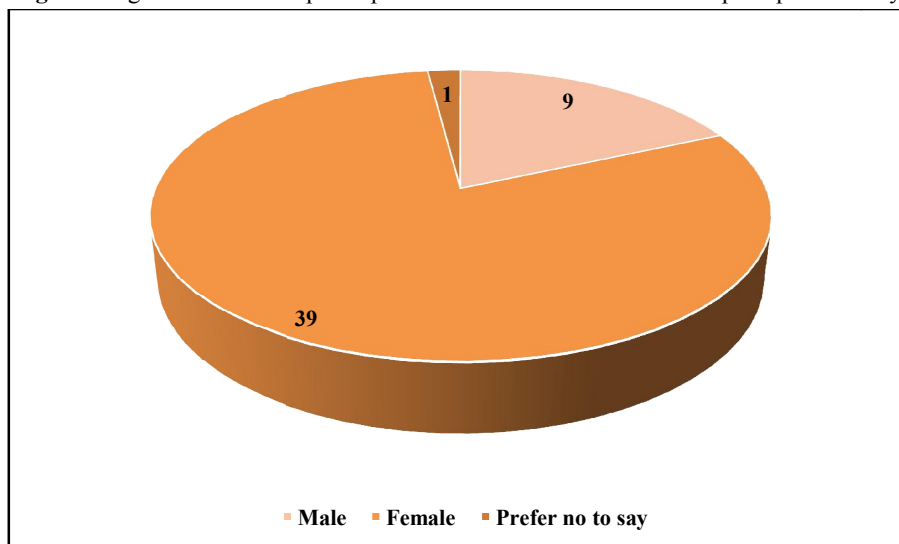


Figure 2.Gender distribution of participants involved in the study.

3.2 Viewer Response Toward Visual Stimulus Image 1

Visual Stimulus Image 1 (Figure 3) demonstrated moderate to high levels of responses were recorded for all tested parameters, where the mean values ranged between 3.90 to 3.96 (Table 1). The participants were pleased with the focal quality and composition of the picture. The picture made use of a focal point, contrast between tones, and other frames, which facilitated directing the viewers' attention towards the subject. Based on the scores, it can be concluded that the image was able to capture their attention and keep them interested. Nevertheless, the relatively low mean scores in



some response categories point to the likelihood of divided attention owing to the inclusion of several visual and textual components in the video.



Figure 3.Visual stimulus image 1

3.3 Viewer Response Toward Visual Stimulus Image 2

Visual Stimulus Image 2(Figure 4)demonstrateda elicited more positive viewer responses, with ratings varying from 3.98 to 4.10 (Table 1). This was especially evident in relation to the arrangement of the picture and the visibility of its focal points; in other words, viewers seemed to have a more positive attitude towards the way the picture was composed. The asymmetrical positioning of the figure, together with a particular direction of gaze, as well as a visually simple background, helped balance visual flow in the composition. It also seems that viewers interacted naturally with the face region of the picture.



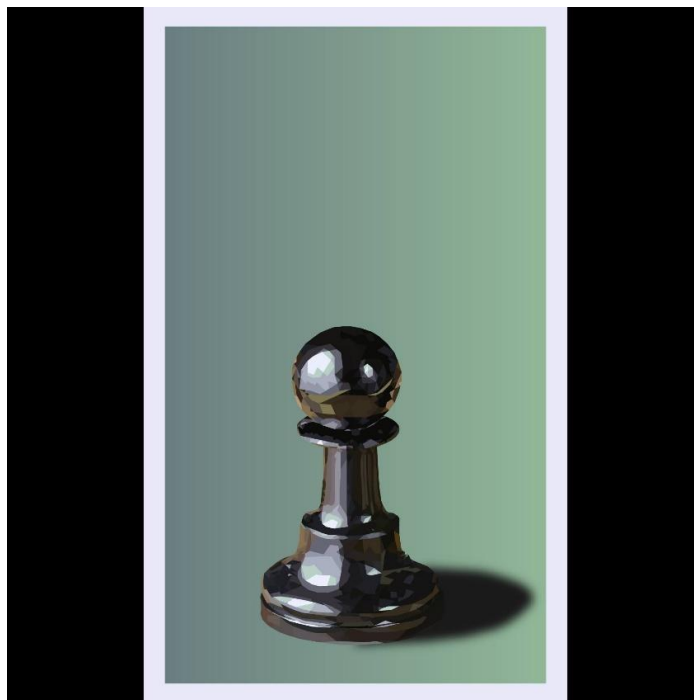


Figure 4. Visual stimulus image 2

3.4 Viewer Response Toward Visual Stimulus Image 3

Visual Stimulus Image 3 (Figure 5) illustrated a positive result in terms of viewer perception, as indicated by the mean ratings within the range of 3.98 to 4.12 (Table 1). The maximum rating out of all the assessed images was achieved in terms of attracting immediate attention (4.12). This demonstrates that the use of simplicity in design helped successfully attract the viewer's attention. In particular, such minimalism entailed using a small number of objects, central positioning of the object, and an abundance of negative space. The use of the single subject and uncluttered environment may have facilitated the visual processing of information.



Figure 5. Visual stimulus image 3



3.5 Viewer Response Toward Visual Stimulus Image 4

Visual Stimulus Image 4 (Figure 6) achieved uniformly favorable audience response ratings for all factors tested, with average values of between 4.02 and 4.08 (Table 1). Positive feedback was generated for the aesthetic appeal, balance in the composition, and maintenance of viewer interest for the picture. The balanced portrait composition utilized balanced framing, tonal balance, and a clear focalization on the face, which collectively promoted stability and viewer engagement. The monochrome color palette and symmetrical design helped create an aesthetically stable picture capable of holding viewer interest.



Figure 6. Visual stimulus image 4

Table 1. Viewer responses toward different visual compositions

	Response 1	Response 2	Response 3	Response 4	Response 5
Image 1	3.90±1.21 ^a	3.96±1.04 ^a	3.96±1.12 ^a	3.92±1.15 ^a	3.92±1.11 ^a
Image 2	3.98±1.05 ^a	4.10±1.04 ^a	4.10±1.10 ^a	4.00±1.08 ^a	4.06±1.08 ^a
Image 3	4.12±1.01 ^a	3.98±1.07 ^a	3.98±1.07 ^a	4.06±1.05 ^a	4.06±1.11 ^a
Image 4	4.08±1.19 ^a	4.08±1.20 ^a	4.06±1.26 ^a	4.02±1.20 ^a	4.04±1.21 ^a

*Mean ± SD (n=49) Values with different superscript letters (a-h) within the same evaluation are significantly different (p<0.05)

3.6 Viewer Preference and Perception Analysis

The findings concerning viewer preference and perceptual reaction among participants are represented in Figures 7-9. The data collected indicate significant differences in viewer attentiveness and aesthetic preferences related to chosen visual compositions. According to Figure 7, the image with the highest viewer attention reaction is Image 4, which was recognized by 44.9% of respondents as an image that attracts attention more than others. Balanced portrait composition,



focal emphasis, and visual organization may be considered reasons for achieving greater perceptual stability and attentiveness on the part of viewers. Additionally, a high level of viewer attention is demonstrated in Image 2, suggesting that asymmetric visual organization and focus of the viewer's gaze are efficient factors of perceptual guidance. Figure 8 shows the findings regarding the image considered the most visually attractive by viewers. Images 1 and 3 were found to attract viewers aesthetically to some extent. The results show that visual simplicity, focus, contrast, and organizational composition all play their parts in the formation of aesthetics and preferences in visual arts. Additionally, from Figure 9, it was found that most people (91.8%) thought that the visual composition had an influence on viewer attention, while a very small number felt differently or were uncertain about it. This further goes on to prove the significance of compositional arrangement in visual perception and its influence on attention and engagement.

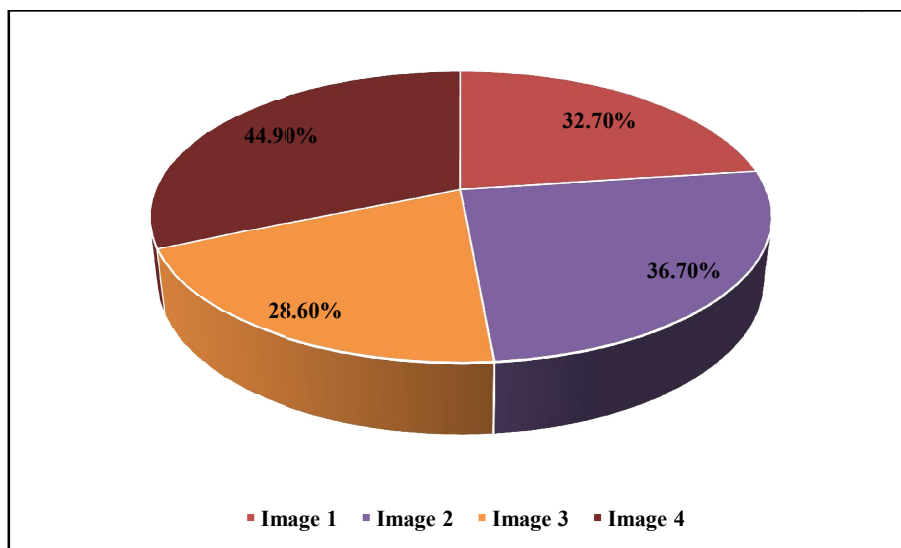


Figure 7. Participant responses indicating the image that attracted the most viewer attention.

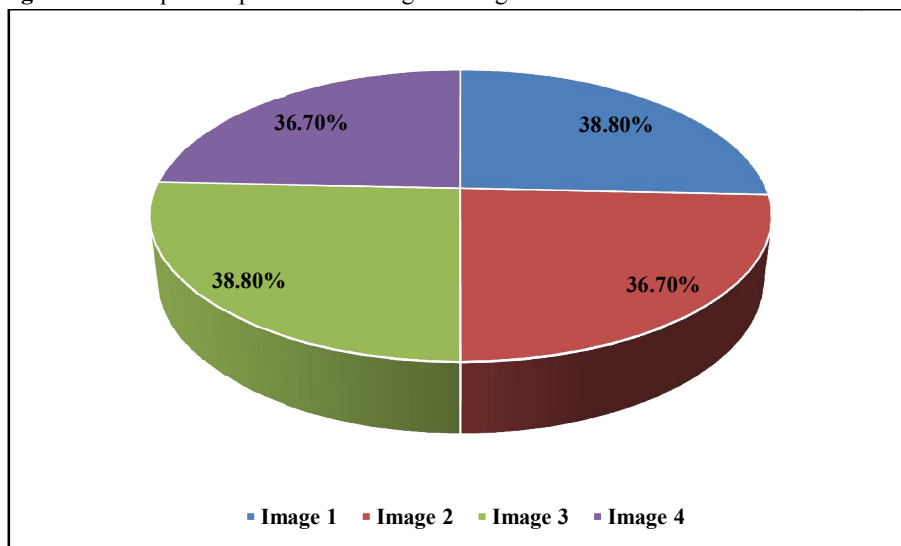


Figure 8. Participant responses indicating the most visually pleasing image composition.



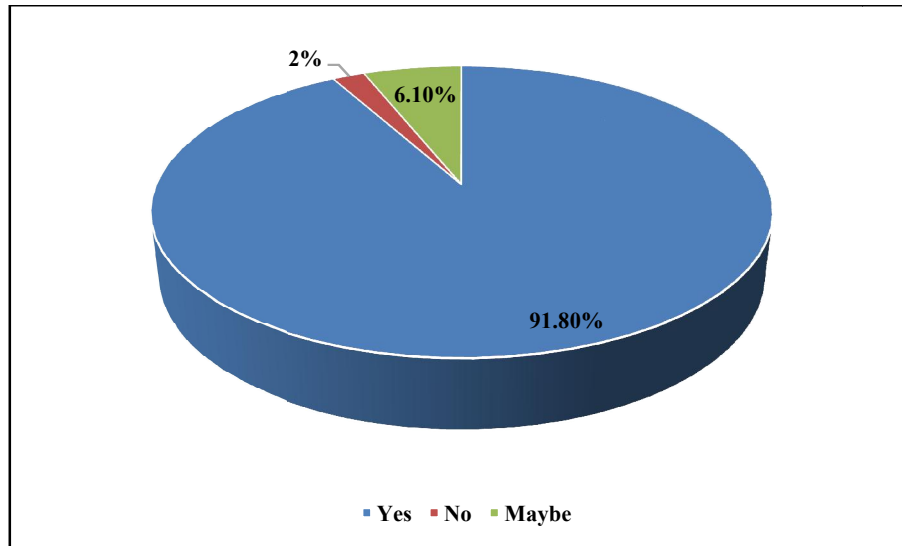


Figure 9. Participant perception regarding the influence of visual composition on viewer attention.

IV. LIMITATION OF THE STUDY

The current study employed a survey methodology and used a few visual stimuli. Even though the chosen pictures varied in their visual qualities and composition, there is also a possibility that their subject matter, style, colors, and level of visual complexity might have affected viewers' responses. Thus, besides compositional structure, the other factors might have contributed to viewer reactions. Besides, self-reported participants' answers were gathered via an online questionnaire. Individual biases and perceptual differences are likely to have affected respondents' answers to the questionnaire questions. Finally, the sample size of the study is relatively small and consists mainly of young adults. As a result, the findings cannot be easily generalized. The study did not employ sophisticated methodologies like eye tracking. Viewers' attention was evaluated through subjective self-reports rather than through direct assessment of visual behavior. Future research may involve larger sample sizes and use various types of eye tracking to objectively evaluate viewer attention to compositional structure in visual art.

V. CONCLUSION

As can be seen, visual composition plays an essential role in determining the viewer's attention and perception when engaging with the artwork in question. Depending on their composition, different artworks elicited differing viewer response regarding attention, focus, aesthetics, and visual appeal. When it came to viewer response in terms of focus and aesthetics, minimal and well-balanced portrait compositions seemed to elicit higher viewer response, indicating the potential positive influence of visual simplicity, balance, and organization on perception and the viewer's sense of visual comfort. However, when it comes to viewer attention, high-contrast focal compositions were more successful at capturing viewer attention due to their contrasting tonality and focal emphasis. Moreover, the study demonstrates the significance of the theory of visual perception and compositional psychology for research in the field of contemporary visual art. In general, the research sheds some light on the issue of the correlation between visual composition and audience's attention in visual spaces. The results can be applied by artists, visual communicators, and researchers who study the theory of composition, visual perception, and audience's attention to visual media. In future, the research could include eye-tracking analysis, larger sample size, and different visual stimuli to examine people's perception of compositions.



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