

Art Education and Creativity: Optical Illusions and their role in Education

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Abstract: *The present research is concerning optical art ideas and resources demonstrating cases of teaching different subjects with the aid of illusion artwork to inspire and motivate lessons, and curriculum for both teachers and students. Arts education, in general, is the basis of balanced creative, cognitive, emotional, aesthetic and social development of a body and life-long learners. The variation of the applied models upgraded as a promotion goal as a part of art education to enhance the quality and status of the visual arts education in Kuwait. The subjects that develop courses to provide support for art education will consolidate the content dragged from related arrays such as art-making, art history, and aesthetics. OP-art curricula as educational background of the students were admitted into the educational Studies art program in Kuwait.*

Key words: *Creativity, Optical illusions, Arts education, Aesthetic and Social Development*

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I. Introduction

Creativity is a natural aspect of our humanity, taken by everyone. It is the responsibility of instructors and teachers in higher education or even in high-level schools to help to nurture this potential skill of the students through systematic artistic engagements. Optical illusions can play a significant role in education and visual literacy. It helps to clarify what can be seen through learning. By learning about the patterns and memorized information while interacting with what around them, the brain transfers the information through the eyes to clear what has been received. These patterns could enable us to identify what has to be taught. Whenever interacting with the environment around, understanding optical illusions and the Power of Visual Literacy Whilst Context is integral to an understanding, it helps to prepare the brain to predict what is coming. Normally it makes processing faster and more efficient.

Art education, artistic works, and activities have been accepted as special, different fields ever since the professional career in this field have been deemed enough secure. Art is sometimes attributed to luxury, the true value of art and the artist has been ignored, and their contribution to the development process of people has been ignored and how they influence how they perceive the world.

Maslow (2013) [1] considered Creativity as a characteristic given to all human beings at birth.” All humans have creative potential. The arts provide an environment and practice where the learner is actively engaged in creative experiences, processes, and developments. The arts are an essential element of education, just like reading, writing, arithmetic, music, dance, painting, and theatre are all keys that unlock profound human understanding and accomplishment. Physiologically, the human brain consists of two parts: the left and the right hemispheres. The left part is used for rational thinking and psychological processes. This is typically what is required for intellectual, moral, and social instruction work that relates to Mathematics, reading, and science. The right side is used for emotional conception, anticipation, and creativity. The right hemisphere is mainly used when a person is involved in creative endeavors such as making art. It is this part of the brain that typical a school system neglects to develop. For the brain to be efficient the two hemispheres must work together, by stimulating and exercising the right hemisphere of the brain, the arts strengthen the connection between the hemispheres the art students as their cognitive skills mature so their right hemisphere will be as developed as the left and both hemispheres work in tandem, eventually achieving the full potential of the mind.

Al-Amir and his colleagues (2018) [2] proposed that, in different countries of the world, by all educational systems, education quality is a global target and is a fundamental goal. It is a way of promoting education, which is imperative to the requirements of the present time of education which is targeting consistency, efficiency, and effectiveness. In the context of global competition, standards have become one of the indicators that help determine what is best for art education. To establish knowledge frameworks and, to judge the quality of arts education programs, the required artistic skills, however, should be regarded as a real tool in the discipline of teaching arts. Not only that but also for intended learning outcomes (ILOs), quality of art production and level of creative expression. Furthermore, Education Standards provide indicators for the quality

of art curricula, not necessarily the content to be focused on, but also provide opportunities for program improvement toward a more significant correlation between the inputs, and outputs processes of the art education itself. The arts are unique tools to stimulate and enrich learning and are an integral part of a completely successful as well as quality education. Art, therefore, plays an important role in our academic work and balanced education for a human who does not receive art education.

I.1.The topic and aim of the research

For the sake of teaching decorative design curricula in the field of Technical Education Department (TED) in the State of Kuwait, the importance of the aesthetic values of the optical art is for monitoring and sampling some of the artistic artwork collections.

I.2.Objectivesof the research:

Provide students an opportunity for:

1. To develop art for expressing ideas, feelings, emotions, and moods through varieties of art experiences;
2. To learn the proper use of art tools, equipment, and materials.
3. To understand and appreciate works of art;
4. To gain knowledge and develop intellectually and culturally through art;
5. To have adequate skill and competence for higher education in art;
6. To develop an interest in future vocation in art;
7. To see the usefulness of art in other subject areas and society.

I.3.Importance of the research:

In the field of artistic work and decoration, optical art is most of interest to demonstrate the aesthetics and methodology of artwork by 2D and 3D. With the above-stated objectives, it could be significantly emphasized that artworks student at higher education does not offer cultural and creative art in primary and junior secondary school. Furthermore, is not capable to properly selfexpressively. It's therefor, to develop OPcurriculum to enhance this matter.

II. The Previous work

Through the World Conference on Arts Education, Mieczkowski (2006) [3] stated that any approach to art education as a starting point must take the cultures to which the learner belongs. In deep appreciation of individual culture to build trust rooted is the best possible starting point for investigating and respecting the cultures of others. It is essential to identify the stable development and value of culture in the historical and modern situation .

Pedagogical content and its structure should not only consider the feature and its advantage of each art form but also supply the artistic means to practice exchanging of information. Furthermore, it is essential to act in the same way as to have the same consequence of action on another within various cultural, social and historical situations.

III. Arts Education Conception and Teaching.

Considering the theory of “multiple intelligences”, UNISCO (2006)[4] has explained that the Art in Education to achieve a specific end, aim to extend the advantages of Arts to all students and subjects as follows:

- Uphold the Human Right to Education and Cultural Participation
- Develop Individual Capabilities
- Improve the Quality of Education
- Promote the Expression of Cultural Diversity

This approach also aims to study the circumstances that form the setting for the theory through the practical application of artistic disciplines. To be effective, these interdisciplinary processes require new methods in teaching and teacher training.

Al-Amri (2011)[5] has explained that the basic elements of communication are words, movements, touch, sounds, rhythms, and images. In many cultures, the expressions which communicate insights and open up room for reflection in people’s minds are called art. The arts should be gradually introduced to learners through artistic practices with experiences and maintain the value of not only the result of the process but also the process itself. Furthermore, since many art forms cannot be limited to one discipline, the interdisciplinary aspect of arts, and the commonalities among them, must be given more emphasis.

Internationally, Fakhriya et al. (2018) [6] emphasized that, in the context of competition, the standards have become one of the indicators that help define what the preferable for education in art is. This could be regarded as a real tool to set up knowledge frameworks and the desired artistic skills. Moreover, to justify the quality of arts education programs, learning outcomes, quality of art production and level of artistic expression.

Standards, however, provide indicators for the quality of art curricula. Furthermore, Standards are not necessarily focused on the content, but provide opportunities for program enhancement toward a more considered correlation between the inputs, educational processes, and intending learning outcome of the art education.

Regarding the history of curriculum development art education models was reviewed by Fakhriya (2018) [6] to identify key aspects of a new model for contemporary art education. In any art program and in terms of teaching art education, the author regards these models as a line between curriculum theory and practice as follows:

1. **Design-manufacture Model.**

This model focused on training potential designers and creating a design consciousness.

2. **Memory Drawing Model.** This transition involved students by using their memories when trying to copy shapes.

3. **Read's Model.** Read's Model consists of three different aspects of teaching art. These components are as follows:

- Self-expression, through creative imagination, which meets the individual's need through feelings, emotions and thinking;
- Observation, reflects the individual's desire to record the impressions, to clarify conceptual knowledge, to build up memory, and to construct things that enhance practical activities;
- Appreciation, which is the qualitative reaction to the quantitative results of self-expression and observation.

4. **Lowenfeld's Model (Child-Based Model).** In this model through the free expression of producing art, art is not the goal itself but rather a method for creative development.

5. **Barkan's Model.** "Barkan's proposal emphasized on three roles for the student:

- Producer,
- Historian and
- Critic".

6. **Chapman's Model.** Concerning with artistic heritage and the role of art in society.

7. **Eisner's Model.** Eisner defines three components for art curricula models.

- The productive,
- The critical and
- The cultural.

8. **Cemrel's Model.** Known as CEMREL's Model for Aesthetic Education, consists of four components:

- The artist and his works
- The language of art
- The role of art in society
- The artistic process and production.

9. **Allison's Model.** The suggested model consisted of four components:

- **The Expressive/productive domain**, which is concerned with expressing art through the production of artwork;
- **The perceptual domain**, which focuses on the development of skills which expand the capacities to see and, feel as well as comprehend form, color and texture.
- **The analytical/critical domain**. Concerns the skills of analyzing, interpreting and evaluating aesthetic qualities
- **The historical/cultural domain**. Concerns with the context of the meaning of artwork, focusing on the historical/cultural.

10. **Frigg's Model**. Consists of a matrix, containing two headings:

- Objectives of Art Education and their Functions (commutation, expression, vision, appreciation, analysis, and recording)
- Content, which includes universal, and local heritage as well as the elements, styles, materials and techniques of art making.

III.1 Visual illusion & Gestalt theory.

Eryayar (2011) [7]; Saliha (2015) [8] & Özer S (2011) [9] emphasized that "Visual perception" is the first classification between all types of perception. Major psychological theories have been used in how visual conception is recognized and making sense of what is operative in this process. Schwartz (2015) [10] explained

that Gestalt theory addresses many of these issues, which state that the common object is more than the sum of its parts which are considered as three kinds of visual illusions as follows:

1. **Literal optical** illusions create images that are different from the objects that make them as shown at fig (1).
2. **Physiological illusions** influence the eyes and brain of excessive stimulation of a specific type such as brightness, tilt, color, movement as shown at fig(2).
3. **Cognitive illusions** of the eye and brain make unconscious inferences (concentrate of the vase or the faces) as shown at fig (3).

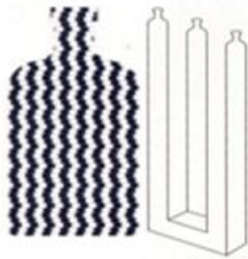


Fig (1)

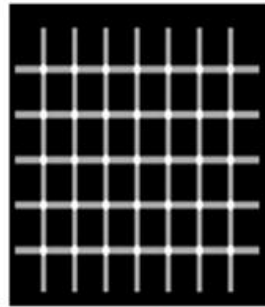


Fig (2)



Fig (3)

III.2. Shape / Ground.

The visual illusion divides patterns in an image to be focused on "particular numbers" whilst the other parts of the image focused on the background as indicated on "old/young" man image as shown at fig (3,4).

III.3. The forming Cafe Wall Illusion.

Cook. et al. (1995) [11] reported that these old phenomena as when two dark and light bricks with the 'mortar' lines come in between as Fig (5), the glowing of the mortar between the 'dark bricks' and the light bricks appear to vanish. However, the perceiving of the brain starts whenever the mortar is either darker than the dark bricks or lighter than the light bricks. The material's lines break from mottled-colored patterns deactivate our brains by trying to hide the contour or outline of the shape.

The circumferential drift illusion, however, is due to an irregular motion illusion that can be spotted in peripheral vision. Originally, Akiyoshi et al. (2003) [12] explained these optical phenomena 'at Fig (6)' as the Circular snakes appear to rotate spontaneously. The combination of black/dark-gray or white / light-gray was the order of four regions of different intensity of light emitted from the image considered critical. Ashida et al. (2003) [13] proposed that the deceptive motion behaves in a particular way to appear in the direction from a black to an adjacent dark-gray region, or the direction from a white to an adjacent light-gray region.



Fig (4)

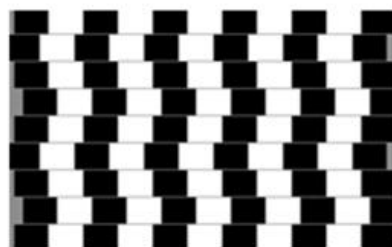


Fig (5)



Fig (6)

IV. Shade and shadows

Maltitz (2008) [15] & Huang (2009) [16] mentioned that Picasso [14] had narrated that every child is an artist, the problem is how to remain an artist once he grows up. As shown in fig (7) it seems to be ambiguous; it could be seen that either the top row is convex or concave or vice versa. This process of observation discloses the visual centers in the brain that have a built-in assumption that a single light source edifies the entire image. Furthermore, it could be found that almost promptly and rationally group, where all the ellipsoid set apart from the cavities. About the degree of darkness of an object as well as the depth perception, Deniz (2010) [17] in Fig (8) explained that shade and shadows are important cues for the manifestation of 3D and rigidity. However, the

round plane figure as a circle has the same intensity of light emitted from the surface polarities it cannot be able to understand the grouping. This fact submits the importance of grasp depth as a braid that is extracted in perceivable processing.

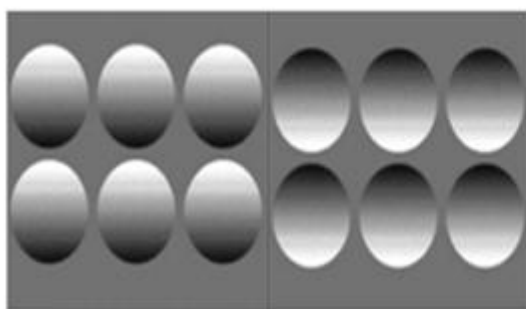


Fig (7).

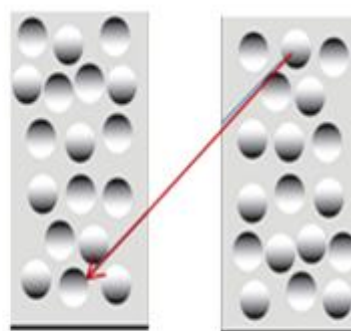
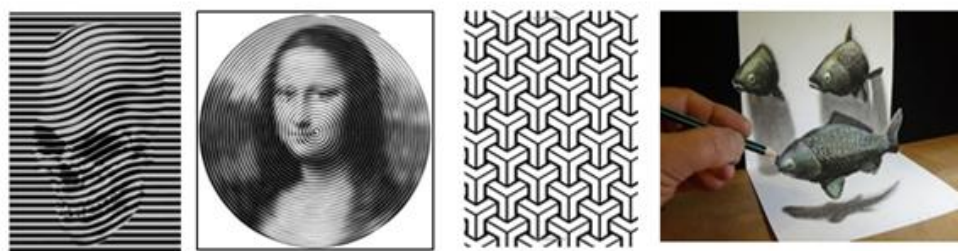


Fig (8).

III.4. The Abstract and geometric artwork.

In 1965, O'Hara (1985) [18] in the modern art of a museum declared this type of international artistic trend in a pioneering exhibition titled "The Responsive Eye. These types of works rely upon the mechanics of the viewer's eye to warp their compositions into glittering and strolling displays of line and color. The connotation that eyes are dragged to areas of contrast is the basis for visual neuroscience. However, between light and dark the hard-edged boundaries participate in a venture by offering something of interest and become amplified through visual conception.

To employ the arts as a medium for general educational curriculum subjects and as a method to strengthen understanding of these issues; using colors, forms and objects obtained from the visual OP-arts to teach subjects such as physics, geometry and biology as shown at fig (9, A,B,C,D), will be in highly consideration.



Physics (A)

art (B)

geometry(C)

biology (D)

Fig (9) shows different illusion

III.5. Color contrasts(simultaneous contrast).

Concerning fig (10), in spite of being no yellow in this image or none at all, and staring at a blue-and-white striped square for a few seconds, the phenomena of a yellow halo will manifest in your visual scope. However, it could be explained as Yellow will show up due to the blue hits the black, eventually will influence the retina. It's known as simultaneous contrast.

The principle of the conception of color is dependent on what other colors are surrounding. Bright colors, however, cast a shadow of their combining in such a way as to enhance or emphasize the qualities of each other or another. Blue color contrasts yellow color, red color contrasts green color, why does the area, therefore, enclose the blue square; take on a golden hue as at Fig (11). Mieczkowski the American painter

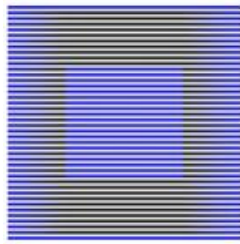


Fig (10).



Fig (11).



Fig (12).



Fig (13).

Fig (10) simultaneous contrast

Fig (11) chrome interference

Fig (12) MacKay rays

Fig (13) "Eye Attack: Op Art and Kinetic Art 1950-1970" Modern Art, Humlebaek.

(2006) [3] tricks the eye into viewing areas of the painting by taking merit from such phenomenon and inspired images that are simultaneously becoming hard-edged and foggy. The phenomena, however, interpreted as a low contrast to misty or foggy layers in front of a uniform black-and-white background. In neuroscience today, Op Art continues to drive research radiating as lines called MacKay rays inspired an abstraction of movement, despite the fact artists have used this technique for centuries as at fig (12). The interpretation for this phenomenon lies in small, unconscious rapid-eye movement's control, called "micro saccades". When offered with heavily patterned and high-contrast images, the eye (which is strained to contrast) can't focus properly.

Op artists approved the linear scenery method as could be applied outside of representational painting. The painter artist used a linear perspective to handle the colors and shapes of abstract forms, creating images that manifest to balloon out into space. Op Art and Kinetic Art appeared in 1950-1970" at the Louisiana Museum of Modern Art, Humlebaek was named Eye Attack as a fig (14). Vasarely uses linear perspective to manipulate the colors and shapes of abstract forms, creating images that appear to balloon out into space. At the time of ancient Greek fig (15) stairs illustrate the phenomena of an optical art form which shows a column and a marble staircase. The Neuroscience of Op Art Fig (15) is showing an Abstract horse as a minimal style, OP Art.

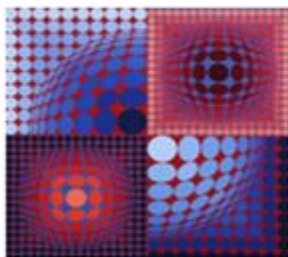


Fig (14).



Fig (15).



Fig (16).

III.6. Geometric shapes and patterns of Optical art.

Boaler et al[19] & Kuyumcu (2012) showed [20] that Optical art depends on geometric shapes and patterns and is frequently colored in black and white. This type of art creates illusions, causing the viewer with a feeling that objects are moving, fluctuated, pulsating, or warping. Some examples of optical art as shown in fig (17 A, B, C, D).

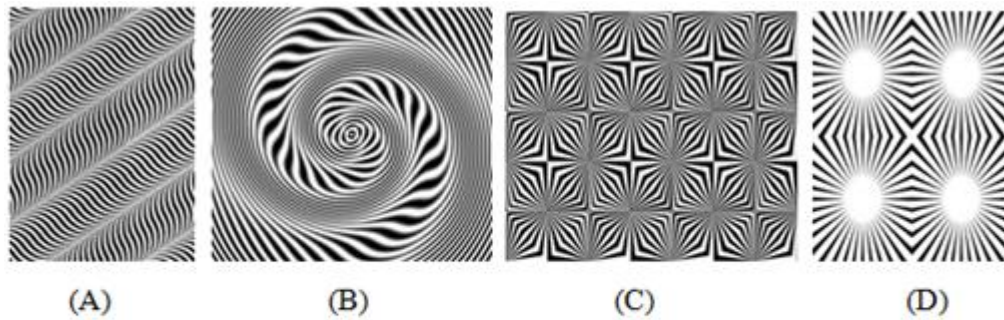


Fig (17).
Geometric Optical art shapes and patterns, in black and white

In considering curriculums of the faculties of education of the undergraduate, it might be faced with some courses related to the field of Fine Arts and Art Education. These courses cover only as their contents the academic knowledge, where students do not have an experience like making new invention by utilizing the world of colors by painting or expressing themselves through their creativity.

Through academic knowledge, the students learn some strategies for their perspective. Art Therefore becomes only a course in which one based on general principles independent of the thing to be explained. These arts are learned by heart to be remembered in such a way it just for having a passing grade without internalizing the artistic activities.

III.7. Optical Art and their participation in Education,

Optical illusions are a photograph, portrait or form that is visually understood differently than how they manifest in reality. These sorts of images can be very amusing, but also very misleading. Optical illusions are caused by either an error with one's visual feeling or an understanding objectively. This error of intelligence occurs when the visual senses precisely explicit an image, but the mind's illusion, false hypotheses, or mislead causes the illusion.

Visual illusions with different influences could be found in numerous places, demanding the interests of scientists, artists, and workers in skilled art. Naturally, optical illusions are commonly mathematical and geometric. Accomplishment activities in the classroom involving these kinds of visual illusions could be intellectually encouraging or arousing interest or enthusiasm. However, mathematically improve, and thought to annoy many students.

The optical art illusions reported and demonstrate below could be approached to students at a higher level of education when studying several geometric curricula. The construction of the illusion is represented by Geometer's Sketchpad (GSP). All optical art illusions with the stereo kinetic phenomenon image were constructed using GSP accomplished the exception of the 3D Poggendorff image.

III.8. Stereokinetic Phenomenon.

Stereokinetic phenomenon is 3D objects congregate by 2D shapes in slow rotational movement. Generally integrated into circles, the stereokinetic phenomenon can also be generated by using an oval shape or four straight sides with right angles, and bars forming ellipsoids, as well as other 3D objects rotating with an angle.

III.9. Concepts Related to Arts Education.

Basic elements of communication are words, movements, touch, sounds, rhythms, and images. In many cultures, the expressions which communicate insights, and open up room for reflection in people's minds are called "art".

The arts should be gradually introduced to learners through artistic practices and experiences to maintain the value of not only the result of the process but also the process itself. Furthermore, since many art forms cannot be limited to one discipline, the interdisciplinary aspect of arts, and the commonalities among them, must be given more emphasis.

III.10. Arts Education Approaches

Through the World Conference on Arts Education, Mieczkowski (2006) [3] explained that any approach to Arts Education must take the culture(s) to which the learner belongs as its point of departure. To establish confidence rooted in a profound appreciation of one's own culture is the best possible point of

departure for exploring and subsequently respecting and appreciating the cultures of others. Central to this is acknowledging the perpetual evolution of culture and its value both in historical and contemporary contexts. Educational content and structure should not only reflect the characteristics of each art form but also provide the artistic means to practice communication and to interact within various cultural, social and historical contexts.

The Arts in Education (AIE) approach utilizes the arts as a medium for teaching general curriculum subjects and as a way to deepen understanding of these subjects. For example, using colors, forms, and objects derived from the visual arts as well as architecture to teach subjects such as physics, biology, and geometry. Drawing on the theory of “multiple intelligence”, the AIE approach aims to extend the benefits of Arts Education to all students and subjects. This approach also aims to contextualize theory through the practical application of artistic disciplines. To be effective, this interdisciplinary approach requires changes in teaching methods and instructors training.

V. How to Utilize the OP Art in Teaching Course:

V.1. Moiré patternCase.

Spite of the fact that Moiré isn't an optical illusion intrinsically, but it is a mediation pattern. The Sonos logo as fig (18) for example uses the collection of the Moiré pattern and Hering illusion as fig (19). The conceptive logo is a very fine line or a background image with tiny lines appearing to move or expand and contract with strong regular movements such as scrolling and deceptive motion. The logo uses components of Bayesian interpretation of the concept and deceptive motion. It's, therefore, the Moiré pattern has been constructed with the aid of OP art technique. As the logo motivate the lateral suppression mechanisms to try to set up and shut down the frame of the area, but it appears to have a located edge. This edge is based on the dissimilarity of dark and lights to explicit a light area as a more intense or lower shadow area, as typically spotted in nature.



Fig (18) Sonos logo

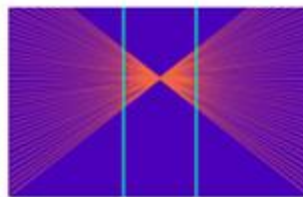
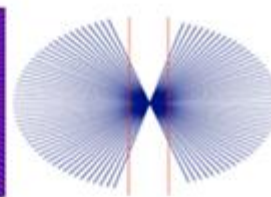


Fig (19) Hering Illusion



V.2. Figure-GroundCase.

Optical art consists of geometric shapes and patterns as it is often colored in black and white. This type of art creates illusions, leaving the viewer with the impression that objects are moving, vibrating, pulsating, or warping.

Through the Gestalt theory address formulating that the unified whole is more than the sum of its parts of an object [7]. Another much-known example by Edgar Rubin, the "Rubin Vase" Fig (20) is one of the most well-known manifestations of how the figure-ground relationship works. In this illusion, the image changes depending on whether it's focused on the faces or the vase. This 3D vase is just a vase, until collecting a silhouette on the wall whenever a light is focused on it. It could be seen the known 2D illusion transfer between a vase and two faces in front at each other, mostly nose-to-nose. This illusion developed to show the figure-ground uniqueness during physical perception where the brain confused. If been looked to one of the faces, the other face will disappear.



Fig (20).

V.3. Illustration Inspiration case. Positive and Negative Space

The considerable connotation of positive and negative space could be used to create the pattern, motifs, and design as geometric or artwork. In many required classes for artwork, students understand that there are three basic elements of synthesis;

- The Frame,
- The Positive space
- Negative space.

The positive space is very simple to realize. Positive is the space taken by the object. Oppositely, negative space is not the object. The negative space is realized by the boundary of the positive space of the frame (third element). So, part of the negative space is restricted by the frame and another part is limited by the positive space. On the other hand, the negative space is completely confined to the positive space.

The wavy surface of the drawing at fig(21 A, B) confirms the Op Art leverage of the positive and negative Op Art drawing of two zebras Chen TZ & Peng LH (2013) [21] as designed by Victor Vasarely in 1977. Whilst the negative and positive space is confirming some capital letters in front of the face of a human, although the face is easily to show up, whenever magnify the graph it cannot be seen easily as shown in fig (21C). Carleton University has its logo inspired by positive-negative the dancer and the eagle at fig (21D).

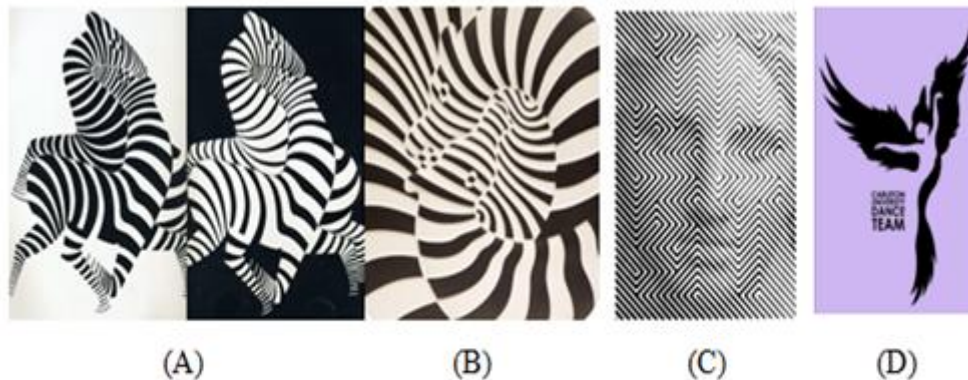


Fig (21).

Fig (21 A, B) shows Zebras positive negative space pattern by artist Victor Vasarely.

Fig (21 C) shows visual graphism illustration design.

Fig (21 D) shows the dancer and the eagle.

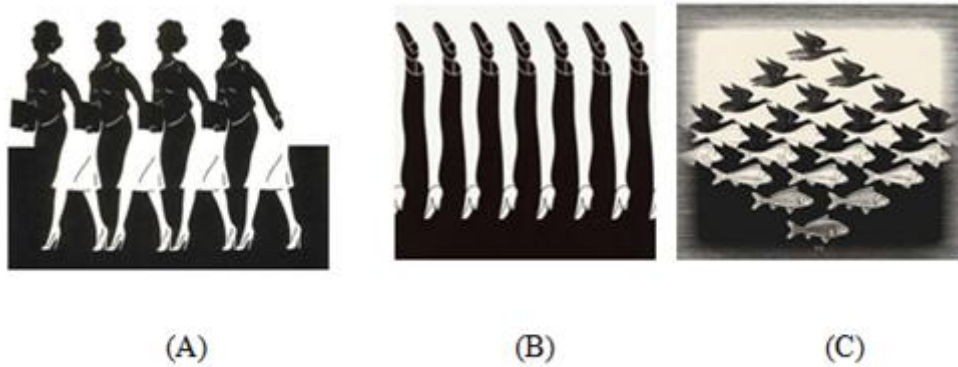


Fig (22).

Seckel (2005); Artist Chen & Peng (2013) who created a lot of interesting visual illusion in negative space as at Fig (22 A, B) whilst fig (22 C) shows fish metamorphosis(Sky and Water).

V.4. Isometric Inspiration by Vertical-Horizontal Illusion Case.

An isometric illusion (vague figure inside/outside illusion or Bisection illusion) is a type of optical illusion; this phenomenon is due to misleading perception. It could be postulated by Thompson & Mikellidou K (2011) [22] that the horizontal-vertical illusion occurs in touch, but the magnitude of the illusion depends on human visual experience and stimulus size. The Rectangular as an example as a primary structural blocks and In order to see if each of the sides are of equal proportions, any glance to anything having this form or a form approximating it as a city block, rectangular piece of candy, rectangular coordinates, cards, tickets, maps, building, Facebook posts, Pinterest pins, and even home appliances will have that impression... etc. whatever, It is absolutely known as the vertical-horizontal illusion.

What's really charming, attractive and cute is that various cultures, as well as human genes, understand this illusion differently. People who live in developed civilized cities behave in a particular way to show greater sensuality than people living in country areas. However, that is due to those in village areas tend to be more customary to living in curved and rounded houses.



Fig (23).



Fig (24).

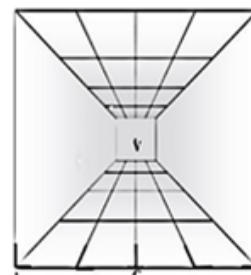


Fig (25).

Figure (23) is showing Absolute Square as appeared at Facebook.
 Figure (24) is showing Two visual illusions of length: (A) the bisection illusion and (B) The Horizontal-vertical illusion.

Fig (25) Perspective drawing illustrating the model Horizontal-vertical lines

Wolfe, et al. (2005) [23] & Mikellidou, et al. (2014) [24] explained that in the apparent field, understanding the length of a part of a line in a front parallel plane is occasionally influenced by the existence of other line segments. However, the theory of Perspective assigns is an interaction with the size of stability scaling. The arrangement of line segments that exist in a visual field including depth cues will trigger the scaling size of each line section. Referring to fig (24) the T and L arrangement of the configuration of the horizontal-vertical illusion of the bisection illusion, the vertical line appears longer than the horizontal line. For most viewers, the illusion volume is larger for the arrangement in panel A than in panel B. The arrangements implicate as they are in the opposite position. Perspective drawing fig (25) illustrating the model Horizontal-vertical lines. In the isometric drawing, the lower half plan performs lines in the ground plan. However, lines in

contact with the horizontal lines of the ground appear vanishing at the endpoint **V** as its perpendicular on the ground.

V.5. Colors Simultaneous Contrast Illusion Case.

It is a fascinating connotation that might artist or designer who uses colour especially or skilfully to learn the visual system and manifestation phenomena. Furthermore, this sort of illusion art is very useful for painters who paint buildings, walls, ceilings, woodwork, and photographers. Simultaneous contrast is a missing subject in the large plurality of expertise learning, workshops, and classes, also digitized photography, colour remedy, and Photoshop colour application. However, by the conception of scientists, red colour appears more brilliant against a black background and duller against the white background. In contrast with orange, the red appears lifeless, whilst the red square appears larger on black than on other background colours. This phenomenon is called the context colour as shown in fig (26). As shown in fig (27), the colour of the text is the same on both sides, but whenever the colour of text and the colour of the background exchange; it doesn't appear that way. This phenomenon is also known as (Simultaneous Contrast Illusion) or as centre/surround antagonism.



Fig (26).

Fig (27).

V.6. Watercolor Illusion (complementary color) Case.

Broerse et al (1999)[25] defined the watercolor illusion as the phenomenon of the complementary color as a watercolor illusion. This phenomenon is referred to as the water-color influence, as any two colors which are directly opposite each other, like red and green, red-purple and yellow-green as showed at fig (28).



Fig (28).



Fig (29).

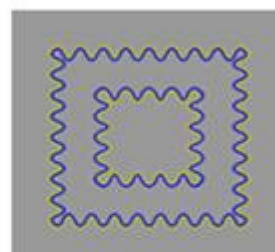


Fig (30).

Pinna (2008) [26] has explained, is dependent on the collection of luminance and colour disparity of the contour lines. The watercolour illusion assimilator y long-term prevalence of colour regenerated from a thin coloured boundary deal with close together with special colour for contrasting stimulation to take place in a darker chromatic contour and creating figure-ground and object-hole influence across a large area. The white region takes place if the coloured polygon is itself encompassed by a thin/ darker boundary. Eventually, a pale tint of a thin, bright, intensely coloured polygon will surround it as in fig (29). Fig (29) is clearly shown in blue and black, but apparently the controversy the illusion sheds some light on a fundamental truth. There is a long-range 'spreading' of a faint color from one or more luminously colored.

- There is a declared ground figure-leverage, in which certain elements will be perceived as having a specific shape (figure 30).

V.7. Illusion Illustration Art Case.

Akosua et al. (2015) [27] have explained that Illusion illustration art could provide an opportunity for Book Design and Illustration, different types of Printing Technology and Management as well as Publishing Administration advertisements. Malika (2019) [28] offers an approach to illustration by the simplicity of lines using the optical illusion to illustrate ideas about fashion design; the elegance of that subject has makeable taste for primary colours.

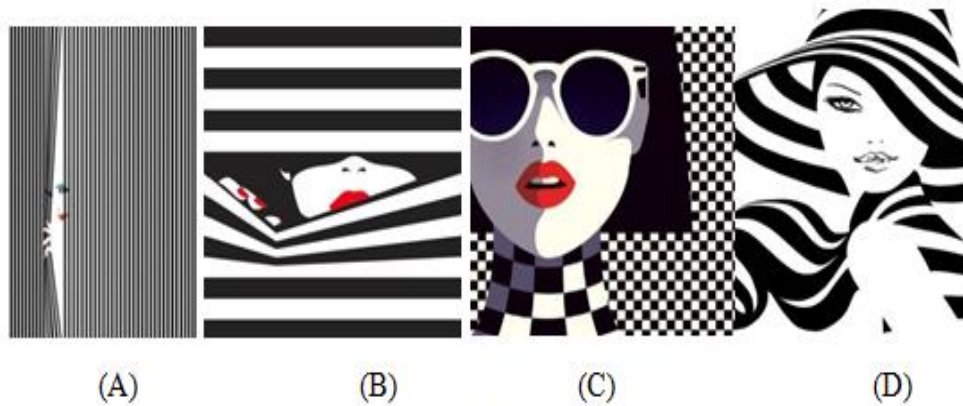


Fig (31)

Akosua et al. (2015) [27] have explained that Illusion illustration art could provide an opportunity for Book Design and Illustration, different types of Printing Technology and Management as well as Publishing Administration advertisements.

Malika (2019) [28] offers an approach to illustration by the simplicity of lines using the optical illusion to illustrate ideas about fashion design; the elegance of that subject has pronounced taste for primary colors. Graphically drawings, however, with the shadows and the mental reconstruction of the image play a crucial part of the design. Her Watercolor Illusion designs astonished the universe and have seduced more than one, including Vogue, The New Yorker, Penguins Books, Volcom and Gucci. Fig (31) its common name as Hide and Seek illustration pattern using optical illusion Malika Favre: Hide and Seek Mini prints graphics illustration pattern optical.

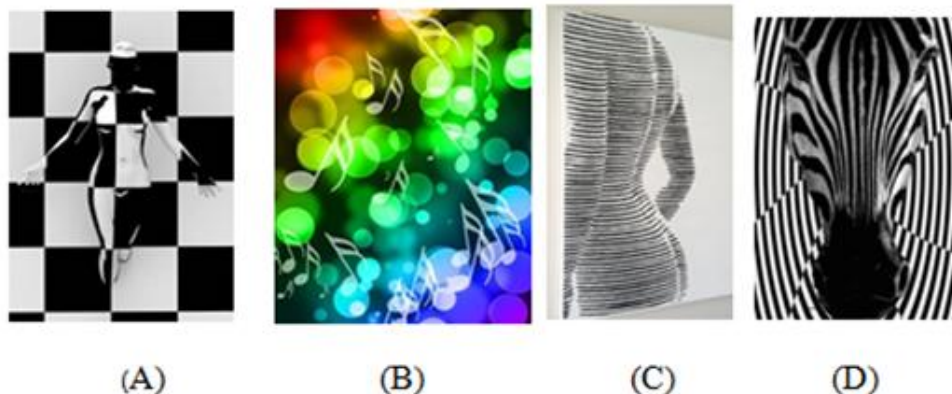


Fig (32).

Fig (32 A) shows Opt Art Illustration with a stylish woman and abstract background.

Fig (32 B) optical illusion: digital abstract background with a psychedelic Effect-music illustration (Saatchi 2018)

Fig (32 C, D) 3D Geometric Stripped Pattern Illustration Art, Line Distortion Illusion Design, Woman Body Figure, and Zebra Body Figure. (GIPH.2018).

V.8. 3D letter Illustration illusion ArtCase.

To produce a significant experience for an around ambient, the conception ability depends on the process of interpreting and regulating sensation. Sensuality usually indicates to the prompt, the relatively unaltered result of arousal of sensory of the sensibility. Practically, sensuality and conception are almost impossible to isolate, because they are part of one uninterrupted process as shown at fig (33 A, B, C, D).

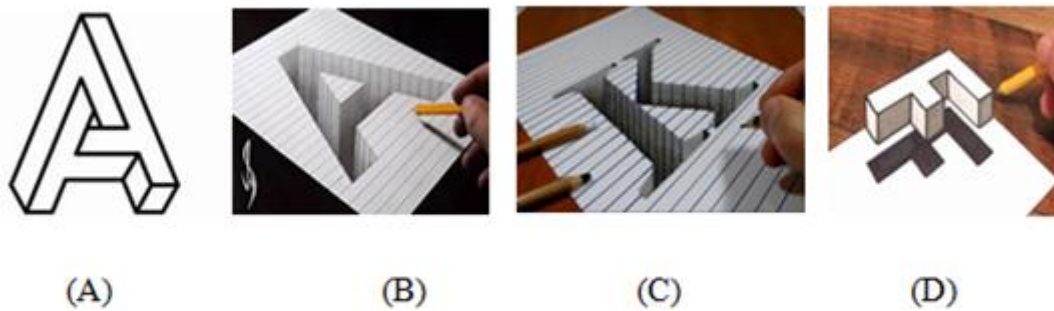


Fig (33) is showing some examples of letter Illustration illusion Art.

Fig(33A) Shows Impossible Optical Letter A.

Fig (33B) Shows Drawinga Hole in Line Paper.

Fig (33C) Shows 3D Art Optical KHole In Line Paper.

Fig (33D) Shows Draw 3D Floating Letter F.

Every elementary letter of alphabet of the English language, however, still there's something incorrect with it, is by some means impossible if viewed intentionally.

Regarding the subject of optical illusion, and, because there are not many theoretical explanations, it is not easy to distinguish between the illusion types. However, it could be suggested that there are some types of optical illusions such as brightness, contrast, perspective, as well as interpretation of 3D images. Optical illusions have impacts on the human perception that are the study field of different disciplines. According to the first stages of the visual arts, therefore, these impacts have been used as an artistic value.

Fig (34A) 3D Typography Optical Illusions of Liquid

Fig (34B) 3D Illusion jumping Letter "A"

Fig (34C) 3D Illusion Letter Drawing

VI. Recommendation

Teaching the arts must go further than simply teaching, particularly learners' proficiency, training, and staff of knowledge. In addition to studio efficiency, the educational programs of Arts must motivate the instructor's preparation in high scale. Art instructors are supposed to be promoted up to the skills of other artists, inclusive of those from other quality of conforming to conventionally accepted standards of behaviour. Furthermore, enhancing the professionalism required to collaborate with artists and with instructors of other subjects in an educational regulation.

VI. Result and Conclusion

The present research is to support Art education as well as to support the students to innovative aesthetics, sustain and nurture creativity for sustainable development through the aid of OP art and to advance art theory and practice.

The illusion of Art in Education tactics aim to extend the advantages of Arts to all students and subjects. This approach also aims to study in context the theory of illusion through the practical application of artistic OP disciplines. Furthermore, to make it an influential part, for interdisciplinary or relating to more than one branch of art. Art in Education processes requires new methods in teaching and instructors training. The modulation of art as a core course study shows how using educational Curriculum poses a major challenge to the teaching and learning of drawing and the sustainability of the course of Design and Illustration component of the programme in particular. The key challenge is that art programmes are recommended to be studied by optical illusion arts. Expecting students with Science and General Arts backgrounds, therefore, to learn to utilize and attain the standard required for rendering the art programme.

In conclusion, it is a fact that the illusion art at higher education courses would add values to the prospective instructors and help to educate responsive generations, both to themselves and to the environment.

As stated by Kuyumcu (2012) [29], the present research that it is inevitable that the world view of a prospective instructor who does not make any use of the added value of illusion visual art would be at certain limits while practising the professionalism.

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