Reading image and thinking image in a new visual age

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Abstract

We are living in the age in which visually is prevailing intensely and mass communication is based upon image rather than expression. It is a significant skill for our age to comprehend the language of images in this new visual age. Art and visual world are not independent concepts. Visual literacy, a branch of multiple literacies emerged with the development of information and its transfer style, is a visual language utilized to work out issues of this new visual age. In this study, the relation of visual literacy concept to art and art education is investigated based on the literature in the light of technological advancements. Improvability of visual literacy skills through art education is discussed by compiling the results and comments of other studies and investigating the interrelation of art and visual literacy. At the end of the research with the scanning method, evaluations on the relations of visual literacy concept to art education and their interactive sides were carried out, and conclusions and recommendations were stated relevant to raise productive individuals that have visual literacy skills through an effective art education.

Keywords: visual literacy, visual thinking, visual arts, visual arts education

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1. Introduction

Throughout history, every age expressed itself visually with its own style. Prehistoric people were expressing themselves by drawing pictures on cave walls and communicating by that way in prehistoric times. They made story-resembling paintings to convey feelings, thoughts and images on their mind. The Archaic Age is the age of mythological and philosophical narrations. Both literal and visual works and achievements were created and composed. The Archaic Age, laying the foundations of the civilizations, is an era developing rules, measurements, principles and standards on artistic and cultural domains. Medieval artistry and aesthetics were intended to religious dogmas of the Church and nobles. However, the Enlightenment Age was obvious with innovative and more courageous works after the invention of printing press which led quicker transference and delivery of knowledge. Subsequent to the printing press, writing became considerably effective on the community. With leapingly improving technological advancements; invention of camera, cinema and the television; it has become smoothly possible for imagery to step in everyone's house. Eventually, with the internet and computers, the incredible speed of knowledge has introduced distinctive language of imagery and visual culture into our lives.

The conversion of communication devices into multimedia technologies, especially audial and visually ones, reasonably expends global scope of imagery. Improving information and communication technologies tend to build almost all of the activities related to people on visually. So perception process of individuals in this swiftly changing and improving visual world is influenced and directed by images surrounding them.

Gonenç (2007) states the real evolution started with mankind's using his mind and creativity power; human needed to communicate with each other and developed some techniques for that purpose, like drawing pictures on cave walls as well as communication tools like smoke. Communicating with images, similar to efforts and ways of mankind to express himself, is as old as mankind's communicative skills.

Mankind started to draw and paint before writing. Paintings and drawings on cave walls and outer rock surfaces plainly explain how humanity expressed feelings thousands of years ago, whereas they do not inform us how they spoke (Tansug, 1999). Prehistoric wall paintings found in Lascaux Cave, France, dating back 12 000 BC, explicitly show that humanity communicated by visual ways before speaking (Hollingsworth, 2009).

Since mankind started to remind what he saw, visual function has become very important in civilizations' development. Mankind recognized what he saw, converted them into images and symbols and succeeded to save them in different styles to convey next generations. Human brain uses mind images of visual perception for daily life, in other word, can think visual. (Deary et al, 2004).

2. Visual world of the 21ist century

 Communication is a fact associated with all dimensions of human and social life. For that reason, any novelty, development, changing in communication brings about transition in many dimensions of life. Especially today, as communication technologies are so developed, it is suggestible that communication is playing a determining role in personal and communal life day by day.

The process began with telegraph and followed with cinema, telephone, radio and television, transformed, reshaped and synchronized communication; lifting boundaries and sharp limits. With communication opportunities of the internet, we started to discuss on new demographic descriptions of generations like X,Y,Z with different level of interests in technology; reason and mind became the basic conditions for information, updating and sustainability. Furthermore, as the 3G technology, smart phones and tablets stepped into the daily life, a new era that entails great transformation in conventional media of which basic functions are communication, education and entertainment began (Peltekoglu, 2012).

In our age we are experiencing a big transition from written culture to visual culture and visual-act is the principle leading factor of individuals' lives under the dominance of technology. As for the vision-act sovereignty, it caused homo-sapiens that is knowledge human left their place to homo-videns that is seeing human (Sartori, 2004). Today web sites like You-Tube, Facebook are visited by millions of people; the number of searches within just one day can reach hundreds of millions on search engines like Google.

Developments in technology and information technologies in recent years are the most determining improvements of our age. Television, computer, tablets, mobile phones, billboards, digital games, digital libraries, etc. accompany us in our daily life. We are living within a visual world surrounding us. In our current world which improves based on technology compels us to think and perceive distinctively. Newly developed technological devices and information interactions of these devices change the current culture and hedonic criteria's attendantly, and today's human being is exposed to a fierce bombardment of developed technological devices not only visually but also aurally. In this new visual age, created by visual interactions, concepts like visual literacy, visual thinking has taken their place in our dialogues. In this new visual age even children are exposed to visual codings and they start to learn visual language since very early ages. In this new visual age, even the cities are illuminated, painted and changed visually.

Fig.1 (a) Piccadilly circus-1896, (b) Piccadilly circus-1949, (c) Piccadilly circus-1962, (d) Piccadilly circus-1992, (e) Piccadilly circus-2015

Figure 1 shows different photographs of Piccadilly square, London taken in different years. The oldest one of these photographs is 119 years old, and they are chosen to adduce visual shift of the city. They may be considered as civic images, results of easy access to visuals through technological advancements and their dominance in our lives. Life is getting more and more visual and most parts of the modern life are passing on the screens.

Our age is a modern age surrounded by images, and subtle meanings are interpreted by visual images without necessity of a word. Images are creating this century's problems but they are offering solutions to these problems at the same time. The long-termed dominance of writings and texts is now coming to an end, so the descriptions for today's human beings shall be 'I see' instead of 'I read'.

Many of the science branches transfer improvements on their domains, particularly instructional materials, by prioritizing visually. That is because the dominance of the idea that eyesight is more

effective in perceptual process than any other senses. The concepts of perception and visual perception come into prominence in our world where every social process is captured by visually and everything get visualized. Eyesight, one of human beings' senses, is more significant when compared with other senses, as it enables human beings to react after the struggle of describing and interpreting things surrounding them with sight primarily (Ketenci & Bilgili, 2006).

In our age, an average child, between 6 to 18 ages, grows up spending thousands of hours on watching television, using computers and tablets. That means a child, between 6 to 18 ages, spends over one-quarter part of his/her life with media tools. Consequently, children in our age are already visual readers in most of their lives. Visual literacy is also important as it sharpens the mind. Hence most of the people prefer to comment on images on the newspaper or videos shown on TV rather than what they read. It may be the result of the fact that words are symbols enabling people to understand the concepts and objects while images are tangible and reflecting the reals (Hoffman, 2000).

In this day and age, images are intensely used in marketing and branding as it is easier to reach the audience and target group by this way. A successful content marketing technique and digital trends require visuality today. Significance of visuality is an indispensable part of content marketing. Social media channels like Youtube, flicr, Instagram, Vine, Pinterest have played a big role in visual content marketing's becoming so important.

According to Paul Messaris; mankind faces numerous visual images every day. Films arouse anger, cause tear or inspire mirth, and advertisements or advertising boards bombard the observer or audience on every each view; so people react cognitive or emotional responses to these fierce visual art works. You can make a lot of things in a country of which language is strange to you by just interpreting the common symbols and signs. For instance; airports are always illustrated with a plane image on roadside signs. That leads you to the airport even if you do not know what you can say plane in that language. These kinds of pictograms prove that visual language is a universal language. In essence, we can claim that visual language is much more comprehensible and effective than written language.

Fig.2 (a) traffic Signs, (b) pictograms (c) mobile phone icons

Figure 2 illustrates some universal images. These images point out the same thing all over the world. In other word; universal language of images is spoken by the same way everywhere. Anyone who does not interpret what these images mean can understand the subtle meaning by comparing with something s/he knows.

3. Visual literacy; reading image and thinking image

Eyesight is the complexity of the task determining size, form, location, colour, brightness and motion of an object. Sighting an object in space and context means to discriminate object's own characteristics from the surroundings and observer's suppositions. It necessitates the object to be identified as a whole with its structural characteristics. In the realization process of sighting operation,

it is possible to observe cognitive perception analysis stages and it is our own minds that enable us to visualize the images. As a part of the cognitive process, sighting is realized with continuous interrelations of sense, conscious and unconscious. (Arnheim, 2012) emphasizes that sighting is the most marvellous way of mind using, states thoughts effect what we sighted and they affect our thoughts.

An old adage says: A picture is worth a thousand words. It highlights the importance of visuality. In his book, Fathers and Sons, Turgenyev says; 'A photograph can show what is written in a book for 10 pages with just a few lines'. His saying is reflecting visual expression's power. We can claim from this point of view that a complex idea can be illustrated with just one image.

The term 'visual literacy' was coined by Debes. According to Debes (1969), visual Literacy refers to a group of visual-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. Debes et al. stepped further and founded 'International Visual Literacy Association' in 1969. Association of College and Research Libraries (ACRL) defines visual literacy as the skill of finding, interpreting, evaluating, using and generating images and visual sources effectively (ACRL Board of Directors, 2011). With the foundation of International Visual Literacy Association by John Debes in 1969, research and study scopes were extended. Visual literacy was investigated under the scope of many disciplines and has become a versatile and interdisciplinary concept.
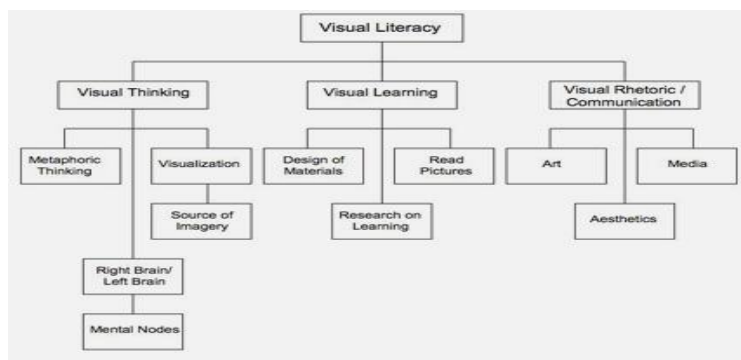

Fig.3 Visual literacy ability

'Literacy' refers the ability to read and write in general, but this term is used for symbols, figures or images aside from words today. Knowing the language of images and interpreting them will enable us to analyse and solve visual problems in today's gradually more visualized world. Visually and visuals expand by means of television, advertisements, newspapers, magazines and internet, and they are an indispensable part of daily life. As we can see in Figure 3, visual literacy can be acquired providing the concerted usage of skills like, visual thinking and visual reading.

Visual literacy is a sight ability which requires interpreting and decoding images. Generally, a visually literate person looks at images within a careful and critical approach; analyses and interprets them. These skills can be used for every visual like photographs, paintings, drawings, graphics, posters, maps and cinema. Like for conventional literacy, formation of skills for visual literacy is gradual, too. Newly literate people only articulate words and sentences but cannot interpret them whereas reading

comprehension is the essence of being literate. Interpreting the words and understanding them occurs within time and practice. This is the same for visual literacy; interpreting images and understanding them require time and practice.

Visuals are important in terms of effectiveness of learning and its permanence. A child, between 6 to 12 ages, gains 83% of his/her life experience by sight, %11 by hearing, %3.5 by smelling, %1.5 by touching and %1 by tasting subsequently. As for capturing; we can remember %10 of what we read, %20 of what we heard, %30 of what we saw, %50 of what we saw and heard, %70 of what we told and %90 of what we did while telling (Sonmez 2005). The process of perceiving an object or an event is realized by visualizing in mind. The more images, words and shapes become visualized in the mind, the more we think swiftly and learn easily. If visual thinking is to defined with artistic images, its influences shall be sought in its relations with well-organized forms (Arnheim, 2012). The basic reason of realizing visual thinking by converting them into images is because of the endeavour of the person to make the interior and outer perceived world more understandable. With these endeavours and struggles, the person, gaining skills in interpreting the nature and objects, may struggle to improve risk-taking, being open to signals and creative thoughts, making leaps and tackling skills.

4. The relation of visual literacy to art and art education

4.1. Visual literacy and art

Artistic expression style, human beings' expressing themselves visually in a sense; similar to all the creatures' using the same words to express themselves. Artistic expression style is a type of expression that carries all of us beyond the limits of time, language and civilization. However this type of expression is quite different from verbal expression style. Because in this type 'designing' is the corresponding term for 'writing'. Whether be two or three-dimensional; materials are used as design elements and principles with instruments and art techniques, to create visual features that we see in a design. Design elements consist of drawings, form, style, fabric, light, colour and space. And design principles consist of equilibrium, repetition, proportion, emphasis, unity and diversity (Chapman, 1992).

The ability of interpreting and regenerating visual messages is a result being visually literate. To grasp the visuals correctly and create these type of messages are learnable and acquirable skills. Visual thinking on the other hand, is the system of thinking by reasoning through visuals. In order to visually literate and acquire visual thinking skills, a person shall gain basic visual competencies. It is surely beyond doubt that, visual language has its own rules like any other language.

Visual thinking mainly requires the skill to see visual shapes as power patterns that constitute our existence. Art enables us to know ourselves by exhibiting natures of shapes, objects and incidents. Art is one the won awards as we think with what we see (Arnheim, 2012).

Visual literacy has the same characteristics with conventional literacy in terms of learning level. Interpreting the visuals requires practice and time. Fundamental features of the theme or figures in a visual are very simple data for first level. Skills for recognizing visuals' details require studies in other fields as well. In order to interpret and decode the visuals, an observing and critical thinking viewpoint shall be developed. Advanced visual literacy skills require critical thinking, and advanced people can decode the content conveyed through visuals. Like all other languages, visual language has grammar rules, words and alphabet, too.

Visual literacy skills are interdisciplinary and interacting with many fields. Observing is an indispensable part of science. Visually is generally used for plotting to solve a mathematical problem. Discriminating and interpreting visualises is very important. It has become a common source for analysis of various domains and fields such as; visual arts and aesthetics, linguistics, media, communication, education, marketing psychology and cultural studies.

According to a survey of Toledo Museum of Art; people visiting the museum, looks at an art piece for 17 seconds averagely. In fact, interpreting an image may be much shorter. According to a research by Massachusetts Institute of Technology, a human brain can identify an image less than 13 milliseconds. If we glance at an Ancient Egyptian painting for just a couple seconds, we can swiftly grasp in which era it was made. This reorganization points out that we have visual clues about the era. We deduce by analysing figures, colours, the theme and the content within the frame of a certain visual language. That is the language of visual literacy.

Fig.4 (a) Lascaux Cave, (b) Egyptian art, (c) Turkish miniature art, Levni, (d) Eugène Delacroix, *Liberty Leading the People* , (e) Pablo Picasso, Portrait

Figure 4 shows art pieces from different cultures and different eras. We can presume or know in which age they were made or in which style and taste they were created if we look at each of them. Our approach to these art pieces points out the relation of our visual literacy skills to art. If we were art-lovers, enthusiastically interested in art, we could read these pictures at first glance as we would be living with images. This bison figure, discovered on the wall of Lascaux cave, is estimated to be 17,300 years old. Prehistoric people, sharing their daily routines, feelings, fears, hunting plans with others, depicted their lives. And Figure 4(b) shows a figure engraved on the wall of an ancient Egyptian tomb. It belongs to Egyptian Civilization, founded in c. 3000 BCE and reigned almost three thousand years. It is obvious from the figures, postures, clothes and compositions that this piece shows Egyptian artistry sense. Figure 4(c) shows a miniature by the prominent miniaturist of Ottomans, Levni, in 18th century. This miniature reflects fundamentals of Ottoman miniaturization and its own style of figure, colour and perspective. The female figure in the miniature was depicted smelling the rose in her hand which also reflects debauchery of the Tulip Era. Figure 4(d) shows 'Liberty Leading the People' by French painter Eugène Delacroix which is considered as one of the most important paintings of the painter. It was painted in memory of the civil riot which lasted for 3 days and led King Charles X of France's deposition in 1830. It is now considered as the symbol of French Revolution all over the world. Figure 4(e) shows a painting by famous Spanish painter Picasso. In this painting, the artist, who pioneered the Cubism movement and regarded as one of the most influential artists of modern painting, draws attention to his idiosyncratic style and colouring. The codes flowing through these pictures convey details about the work's period and styles to the audience; that is visually literate audience.

4.2. Visual literacy and art education

Cultural and technological shifts have effected student profile of the 21st century and entailed new regulations for education systems in accordance with the necessities of the time. Seeing has always been a step ahead of speaking, thus a baby learns to look and recognize before speaking. Besides, there are other reasons for eyesight's superiority. We find our location in the surrounding world by seeing (Berger, 1993). From the very beginning of their birth, children need to interpret images. It is also valid in adulthood stages. Well-developed visual literacy skills, learned with images, have a

significant place in communicating with other people. Images are important to persuade children to buy things or appreciate something, to imagine the future and to interpret the past and the present (Pauwels, 2008). According to Burmark & Lynell (2004); children and adults are keen to believe that they are already visually literate. Because, since their births, they have been watching television, hundreds of films, playing video and computer games and they have always been exposed to visuals and all kinds of media relentlessly. This continuous exposure makes them believe that they have visual literacy skills. However, it is nearly impossible to play the guitar by just listening the radio or to learn how to write '1' by just reading it; it is also unlikely to be visually literate by just looking at visuals. Visual literacy is a acquisition not an instinctive skill that requires practice and training.

Visual learning helps students in how to think, how to learn and how to achieve academic success. Visual thinking is a learning technique in which the student understands better and saves the information when the thoughts, words and concepts are correlated with pictures. The student perceives how to classify and organize the knowledge. Visual learning helps the students in analyzing and organizing the knowledge. For that reason, students can use mind mapping, graphics and concept maps for any kind of topic. They can understand, save and learn by this method.

The most effective perceptive thinking education will only be through art education. By this type of art education current forms and techniques are taught and improved. A person received art education is familiar to visual complexity and to think on problems visually (Arnheim, 2012). With art education, individual's encounters with an education process for the first time, including behavioural changes such as, recognizing the environment, perception, interpretation, sighting, symbolizing, recorrecting (Kınıklı, 2005). Visual literacy skill is important for two reasons in today's education system. First; the researchers insistently argue that learning with visuals is important. And the second; visual literacy argues that students shall be prepared to think critical about mass communication of today's society.

How do we know what children or other students exactly see when they look at a textbook's illustration, a film or at a TV program? The response is paramount as, if the student does not see the assumed thing that means the basis of learning is missing (Arnheim, 2012). It is very important that the student shall be able to describe the visuals, perceive the right codes and decode. The question of whether they have visual literacy skills or not, can only be elucidated by evaluating their match with visual literacy standards.

The Visual Literacy Competency Standards were developed by the study group of Visual Literacy Standards Task Force-VLTF based upon the information literacy competency standards concertedly. The developed standards were published by IVLA (2011) under the title of International Visual Literacy Standards with these seven headings mainly;

- A visually literate student defines the nature and scope of the required visual instruments.

- A visually literate student can find and access to required pictures and visual media effectively and efficaciously.

- A visually literate student interprets and analyzes images and visual media.

- A visually literate student uses images and visual media effectively.

- A visually literate student designs and generates meaningful pictures and visual media.

- A visually literate student grasps ethic, legal, social and economical points surrounding creativity and understands usage and access of images and visual media and ethical usage of visual instruments.

In the process of aforementioned skills' acquisition, in order to improve students' visual reading abilities, Ogle (2000) recommends teachers to do below-listed three-staged activities: (cited by: Buehl, 2001)

- While teaching written texts, in order to make interpretation of relevant visuals regular

activity, various activities shall be performed. For that purpose, students may be asked to depict relevant visuals (picture, painting, photograph, etc.). The aim of this process is to get students acquire familiarity for reading by depicting various kinds of visuals. Students, interpreting images by the help of the teacher at first, shall be able to interpret them on their own in the forthcoming processes.

• Students shall be included to the activities in which they can generate their own visual expressions. For instance, they may be asked to discuss in pairs and to imagine that they are visual editors for a book; what kinds of visual instruments they would use to elaborate elusive texts. At this point students are requested to read an elusive text and asked to discuss in pairs and reply the question of 'Which visuals may be used to make this text more understandable?'. Each of the proposed visual materials is hanged on the board. Then all of the groups come together and examine other groups' material and they all decide which one of these materials is the best. Each student can put this image on the relevant page of the book.

• Students shall be encouraged to regenerate the images they examined. Students may be asked to express the main idea of a paragraph or a text with images. The aim of this process is to get students acquire a habit in generating cognitive images while reading.

Visual literacy standards, in essence, correspond to basic aims of art education. Required lesson acquirements for a student in art class exactly match for visual literacy skills acquition. Because acquirements can feed one another mutually like cogwheels turning each other.

In art education lessons, various activities can be done in order to inspire students to take an active role in acquisition process of visual literacy skills. By these activities students' visual literacy skills for visual regulations, visual thinking, grading the visuals, visual reasoning, critical outlook, discriminating the visuals, regenerating visuals, visual precision, reconstructing the meaning etc. can be improved and exalted with art studies.

Art education has great significance in visual language's improvements for generations living with visually. A modernized art education meeting newly developed technological devices is also a requirement of the new visual age.

4. Conclusion

In order to communicate in digital world, images are being used much more than words day by day. Images are a massage world in which we are inevitably living without any right to choose. We are all surrounded by visual inputs from streets to schools, television to pc screens. Consequently, interpreting images and using them are much more vital today. So we can describe interpreting and describing images using visual reading, visual thinking, visual speaking, etc. skills emerged with the technological advancements as visual literacy. In order to understand an image, one shall see, think and interpret on it

Our youngsters are living in a visually rich and screen-based world and being stimulated by visual media and communication instruments. Visual literacy is a visual problem solving method which shall be encouraged for 21st century learners. Visual literacy, in fact, is visual aspect of critical thinking. Visual literacy is related to everything that we see and it is in the middle of our lives. Visual literacy lessons shall find a permanent place in formal education process.

Art education shall be considered as a learning domain aiming acquisitions for aforementioned basic skills not as a learning domain aiming knowledge, memorizing and measuring knowledge with examinations. With regard to these features, art education is one of the best selection for visual literacy skill acquition for children. Some activities shall be done in order to inspire students to take an active role in acquisition process of visual literacy skills and these activities may improve students' visual literacy skills. At the same time, visual literacy skills can be directed to artistic activities and an

artistic viewpoint may be observed by this way.

Visual literacy is an interdisciplinary concept correlating instructional design, visual arts, communication, linguistics, cognitive sciences, etc. Involving domain experts in visual literacy study process will be useful.

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