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Review Article

An assessment in the light of 21st century skills: The importance of visual literacy education in visual arts class

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Abstract

The information age has some variables such as technology, environment, economic and social structure. In order to be adapted to these variables, it is necessary to prepare individuals by using education. It is the 21st century skills that direct the continuous development of the information age. 21st century skills determine the change structure of the age, which is made meaningful by technology in a sense. Societies that want the process to function properly and to be the architect of change create the programs they apply in educational institutions for this purpose. For this reason, they give priority to literacy skills in different disciplines in their schools. Visual literacy, one of the important skills, is a quiet new concept. Although it is conceptually new, it is old enough to reach the basic principles of painting. Visual literacy skill, which is increasingly important in the information age, affects an individual's competencies such as perceiving, thinking, analyzing, interpreting and designing directly. In addition, it is a skill that should be acquired to each individual as it contributes greatly for healthy communication and self-expression correctly. For this reason, visual literacy skill is an issue that needs to be focused on sensitively in the visual arts discipline while preparing students' learning outcomes in the 21st century school environment. The aim of this study is to evaluate the process of teaching students literacy skills, whose importance is emphasized within the context of 21st century skills, through the visual arts course. 21st century skills were explained in detail in the study, the definition of visual literacy was explained and the importance of this literacy education was conveyed. The study will be a resource for academicians and individuals who research on the subject.

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Introduction

As it is known, Covid-19 has changed the way of education, one of the most important needs, as it has changed the Humanity which lives in the information age has developed different perspectives depending on the series of values that it questions with knowledge. This approach continues in full swing. Individuals who create societies are equipped themselves with values such as especially equality, democracy, and rights. Values have also allowed individuals to develop themselves constantly and capture the age with qualities and abilities. In this case, many qualities such as creativity, innovation, critical thinking, problem solving and communication can be considered as essential for the individual and society. These qualities which are accepted all over the world are called the 21st century skills. Technology and information literacy can be added to these qualities that have existed before. All these values and qualities that are considered as the symbol of development are associated with the 21st century. However, society was based rather than individual in industrial society models that were valid until the 20th century in the world. Since total development is considered valid in industrial societies, individual differences have not been ignored and individuals' different characteristics and expectations have been suppressed. The attempts to question and to offer different ideas of individual have been stopped by the system. The unsuccessful and depressed educational lives of important scientists like Albert Einstein and Thomas Edison are a simple example of this situation (Turkish Intelligence Foundation [TZV], 2017).

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The most distinctive feature that separates the 20th and 21st centuries from each other is the importance attached to the individual. The information age requires investigation, interpretation and research. These encourage the individual to find the truth and beauty. It frees the individual to perform these actions. This free environment presented for the development of the individual has brought many skills such as critical thinking, creativity, and communication to the agenda of information societies. 21st century skills on the agenda determine the human model of the century. Dynamics such as environment, technology, and economic structure are constantly in a stage of change. In this process, only societies that are equipped with 21st century skills and are open to renew continuously can find the strength to fight against the dynamics.

Although what are the expectations in the information age has been determined, it is not clear what should be called the 21st century skills. Discussions, conferences and researches examine what skills should be especially in societies that want to be one step ahead of the age. Although the number of skills varies, the clearest conclusion is that these skills should be acquired through education. (Partnership for 21st century skills [P21], 2006; EnGauge, 2003; National Educational Technology Standards [NETS or ISTE], 2007; Organization for Economic Cooperation and Development [OECD], 2005; European Uninon [EU], 2002). For example, Ekici et al. (2017) and the others reached a total of 63 skills by analyzing 21st century skills in 19 different sources in their study. The most used of these skills are skills such as problem solving, communication, collaboration, creativity and innovation, critical thinking, decision making, information-technology-media literacy, responsibility, leadership, productivity, flexibility and adaptability, entrepreneurship. There are 4 common skills that are included in the scope of 21st century skills by different institutions/organizations and emphasized in all studies. These are communication, collaboration, information-media-technology (ICT) literacy, social and cultural skills. However, creativity, critical thinking, problem solving, and productive skills are seen as the most emphasized (P21, EnGauge, ATCS and NETS / ISTE) skills. Skills such as learning to learn (ATCS, EU), self-regulation (P21,En Gauge, OECD), planning (EnGauge, OECD), flexibility and compatibility (P21, EnGauge) are included in the 21st century skills by more than one institution / organization. 21st century skills have been shaped around English, Reading or Language Arts, World Languages, Art, Mathematics, Economics, Science, Geography, History, Government Administration and Civics. These disciplines are main subjects for 21st century students (P21, 2015).

Especially technology and the internet, which is the most prominent indicator of it, responds to people's expectations in the information age. The access to information through technology is both easy and unlimited. However, the information density on the internet may not always reflect the truth. The overuse of technology also has negative consequences. Therefore, efficient use of media and technology is important for both individuals and society. It was inevitable to take measures for individuals to exhibit conscious behaviors and to include the education in the process.

Learning and Innovation Skills

Individuals should be more careful while accessing information in a changing and developing world nowadays. The world of information reached through technology resources is quite large. Especially in this vast world of information accessed on the internet, the validity and reliability of each information shared cannot be tested. At this point, the most important thing is to reach accurate and reliable information. Learning and innovation skills to acquire the right information are important for the success of individuals. Therefore, the individuals in our age should develop their critical thinking and problem-solving skills. In addition, creative thinking skills need to be developed while interpreting the results and producing new information. In addition, the skills of the information age such as communication and cooperation strengthen collaboration and team spirit (P21, 2015).

Creativity is a process based on the new adaptation of the existing and

the production or the change of varieties (Özden, 2014). Creativity which is active in almost each aspect of life, is the skill of associating relevant situations, creating connections between these relationships, drawing original and effective conclusions by looking at situations and events from different angles. Creativity can manifest itself in art, science, architectural design, in short, in each subject. These different areas take into account expectations while expressing the definition of creativity. While creativity in the field of science manifests itself in a final product, it can be seen as the expression of emotions in art. On the other hand, education expresses creativity as the difference in the individual, research, questioning, free and original thinking. Such individuals can be considered creative in the field of education. In the understanding of the industrial society, creativity focused on science and art has been considered important. Because creativity takes care of the public interest in this understanding. However, creativity in education

is more important in the 21st century information age. Because individual differences are essential in information societies.

School and 21st Century Skills

In today's world, education is equipped with human values. Education centers individuals with high mental potential and versatile thinking. Raising such individuals is the main goal of education in information societies. Education is individual-oriented; because the individual is the most important part of a strong society. Therefore, individuals of the information age have critical thinking skills thanks to the education they receive. These individuals are well-equipped people who can express themselves well, have learning skills, are innovative, and are able to use technology and information resources efficiently and perhaps most importantly, who are members with high power to represent the beliefs and values of their society. Because these individuals are sensitive, they are also very sensitive to both local and global problems. For this reason, they make an effort to find solutions to problems.

The roles of education, school, teacher and student were also restructured by the transition to the information society (Erdem Keklik, 2016). Schools have turned into a structure that prepares the individual and the society to the age and has taken on the principle of making them competent at the point of knowledge management. It is the duty of schools to follow the ever-changing conditions because of technology and many reasons, to adapt the society to change, to offer technology, to equip the society with the knowledge and skills required in the age. The school has to gain knowledge as a process and product and develop a high-level universal literacy awareness. While doing these, all students should be motivated to continue their education and learn. The school, which has to be open to each individual, should be the places where the life-long education of the individual is provided (Akıncı Çötok, 2006; Besler, 2015).

Educational activities in schools take place within the scope of a program. The first step of change in 21st century schools will be in the programs to be applied in those schools. There should be four basic formats in the programs applied in schools. These are knowledge, skills, character and meta learning (Fadel et al. 2015). In schools, these four formats should be blended and applied in all educational activities. While relaying information in the lessons, skills should also be developed with practice. In addition, students' character development should be supported, and higher learning awareness should be tried to be improved by monitoring continuously.

The restructuring in the education system should be created according to raising individuals equipped with four basic formats. The programs to be created should be in a way to provide skills, and in-class and out-of-class education and training activities should be planned for this purpose. Methods and techniques should be determined in accordance with the purpose, and learning should be enabled with a student-centered approach. Methods and techniques should serve to enrich interaction and collaboration, to use technology, and to create a rich and original education-training program.

Individuals must be active and in a free environment in order to think freely. Schools have enough opportunities in this regard. Educational drama, station and educational games give students the opportunity to be free in classroom environments. Mobile devices, smart boards, technology tools such as computers and printed resources to be used in classrooms will provide convenience in accessing information and an active learning environment will be created.

Counselors should assist in using the necessary resources for students to research. The number of customized environments where these conditions are provided and students can actively realize their own learning is increasing all over the world (Kırtak Ad, 2017). Examples of these environments include active learning classrooms, enriched libraries, workshops and modern laboratories.

Active learning classes are versatile resources for knowledge, skills and competence learning outcomes. In addition, students in this type of educational and training area have the opportunity to work together. The student's group awareness develops, interaction and communication increase in a synergy environment. In this way, the student gets to know himself, realize his/her competencies and abilities, develop communication skills and socialize. The student sets the learning goals for himself under the guidance of an effective teacher. Students find the appropriate learning style for them (Aydede, 2009).

In the information age, the presentation of information resources has also gained importance. Active and efficient learning environments have been created for easy access to information. New library model equipped with information technologies is also one of the environments designed for the expectations of the age. In these libraries, the concretization is made with educational videos and digital applications to facilitate learning. Questioning, critical and analytical thinking skills are developed by creating a versatile learning environment in libraries. Individuals using different programs benefit from resources suitable for their learning style and learning speed. Libraries reduce the

course load on students and help the efficient use of time. Thus, the individual has the opportunity to spend more time with his/her family (Durukan, 2015).

The attractiveness of the original educational environment also increases the student's interest and participation.

Laboratories can be given as examples of effective environments where knowledge is concretized and understood with practice. The use of different learning methods especially related to science fields ensures permanent learning in these environments. Of course, trying to protect the laboratory materials meticulously and therefore not making them available for use prevents the achievement of the intended learning outcomes. It should not be forgotten that these environments are the places where students comprehend the scientific process, learn through practice, gain new skills, and enjoy learning through experiments. Therefore, laboratories should be at the service of students. Individuals who have caught up with the information age can only be developed in this way (Demir, 2016).

While workshops in industrial societies were used as the working area of factory workers, craftsmen and artists, it became the most important places where individuals' creativity was supported and developed in the following periods. Education is the field where workshops are seen as important work areas that reveal individuals' creativity. For this reason, workshop activity in education is a common situation today. As well as workshops are used in creative drama, visual arts, theater pedagogy, they are used as the areas where technology-applied fields such as robotics and design are realized (Adıgüzel, 2015).

Although art and science seem different from each other, they are actually fields that complement, develop and support each other. People comprehend the causes of beings by science and shape these beings by art. Because the working methods of these two fields are different, they do not contradict, on the contrary they have complementary roles. The difference in their viewpoints is also a source of wealth; it contributes us to see the facts in a better and multi-dimensional way (Kavuran, 2003).

The technology-oriented nature of our age has caused innovations in each field. Both individual and social orientation towards technology triggers development. Particularly, the artists' desire to bring technological development to the art environment led them to collaborate with scientists. This situation prepares the ground for digital sense of art. This sense has also changed the modern world sense of art education. While perception, comprehension and expression methods change in the age of digital revolution, virtual reality also offers new, different and creative editing possibilities at the level of perception of consciousness or existence (Kuruüzümcü, 2010).

Art Education

That education and art come together in different formats and environments means art education. Art education begins when the individual tries to recognize the environment, perceives it and makes sense of it. Afterward, art education develops with accumulation and originality, giving a product and enjoying the resulting work. Art education should be given to the individual within a certain plan in the educational environment. Art education may be effective only in this way. The learning outcome-oriented art education in schools is given according to age, interest, level of development and abilities of the individuals. Henceforth, art is a lesson that is taught and learned with its product, history, criticism and aesthetics (Kavuran, 2003).

New expectations have arisen in line with our age in art education as in every field. In the traditional process, the main goal of education has been the products obtained. Today, this understanding has changed. The important one is the educational process and its effects on students' learning. The importance of how the student learns brings some changes with it. Especially, the idea that each individual is different requires to prepare different learning programs for the students. Although this structure which supports the student's creativity and development is difficult in the application process, it is more effective in terms of its results. Art education, as a tool that provides mental development as well as visual needs, does not only reveal the creativity of individuals, but also helps to satisfy the spiritual side of the individual, and it is an integral part of the overall educational integrity with this aspect (Mercin & Alakuş, 2007). It is important that art education is not separated from the general education program and is integrated into it. The best way to achieve this, is to create art and science integrity. When being considered that the main purpose of education is to serve people and make them happy, the cooperation of science and art will be very productive. Because art is fed with emotions. Thus, the individual's thinking capacity increases, his/her mental abilities and intelligence develop. While art emphasizes the intertwined connection between emotion and thought, it is also an effective assistant of the learning and development process (Yolcu, 2007).

Art education supports the student's development. This support helps the student to think freely, to be self-confident and to generate original ideas. When we consider the individual differences, arts education that supports

each individual in different ways and according to their personalities helps the society to have individuals who can think sophisticatedly.

This situation leads up to innovation and development. Individuals who grow up with this understanding find environments where they can express themselves freely. The child who produces, chooses, likes, expresses himself is a member of the society in which he/she lives and the representative of his/her future (Buyurgan & Buyurgan, 2012).

During the educational process; Buyurgan & Buyurgan (2007) stated that the thinking styles in which the left hemisphere of the brain is active are not sufficient for the upbringing of children and young people and the development of their creativity and the right hemisphere of the brain needs to be activated, and added that the inclusion of art classes as well as mathematics and science lessons in educational programs states is required. Kırışoğlu (2002) also mentions that art functions as an intermediary in the multidimensional development of the individual. From this point of view, it can be said that art education assumes a role of providing balance in education by providing emotional education in the individual.

In summary, the education of visual arts which sheds light on development in the information age is quite important for both the individual and the society. Visual arts support scientific developments in all aspects partially indirectly and partially directly. Therefore, the importance given to visual arts also triggers scientific developments. Based on this idea, 21st century skills should be applied in visual arts and visual arts education should be reconstructed. The importance of "visual literacy" in visual arts education should be expressed very well and should be included in the education program.

Visual Literacy

Before making an assessment on the subject, some definitions about visual literacy are included. Visual literacy is the capacity to read and understand visual elements, and the ability to think and learn with visual elements, that is, visual thinking (Hortin, 1980). "Visual Literacy" was defined by Debes at the Visual Literacy Congress in 1969. According to Debes, visual literacy is the name given to a group of visual competences that human beings can develop by combining events by seeing and also experiences with other senses. The development of competences affects the individual's learning life and therefore it is very important. These competencies that develop in the individual enable the evaluation of events, objects and symbols. In this way, the individual becomes visually literate who is able to interpret natural and artificial events and detect the differences. If he/she uses these competencies creatively, he/she can communicate effectively with others. At the same time, he/she gets aesthetic pleasure from visual works and can interpret them artistically (Debes, 1969).

In the age of information-based technology, visual literacy is an indispensable part of education systems. While there was only one picture before, there are thousands of pictures today. In other words, our surroundings, streets, avenues, television and the internet constantly present us with new pictures. These pictures and all other visual elements cause rapid visual change. Visual literacy skills must be developed in order to benefit from them in a very short time, interpret them and draw conclusions. Because traditional literacy skills which are seen as the skill of drawing these symbols on paper within the framework of certain norms by perceiving only printed symbols are insufficient (Akçam, 2006).

It is a short expression of visual literacy that the individual improves his/her visual competence by using his/her sense of sight. This competence is one of the fundamentals of learning. Therefore, people with visual literacy skills have developed skills of detection, discrimination, analysis and interpretation. With the creative use of these competencies, people communicate more effectively with others and use visual communication better (Avgerinou & Ericson, 1997).

Some shapes or images may attract our attention more while perceiving our environment. Visible and particularly remarkable shapes are transmitted to the brain, recorded, and thus the shape is determined. This shape can be drawn and additions to the shape can be made. Learning develops this process. Human hand and its skill constantly improve itself from simple to complex. This development is a tool of thought. On the other hand, thought is interested in some forms over time, loves them, but also realizes that some of them are forbidden (Mülayim, 2006). Visual literacy is a collection of skills that enable understanding and using images to communicate.

Visual Literacy Education

It can be explained with visual literacy skills that people perceive visual messages accurately and completely, and create new messages themselves. Visual literacy can only be developed for an individual through education. It is normal to be interested in this education for people who are willing to understand, explain the meaning and interpret the world they live in. Feinstein and Hagerty (1994) consider visual literacy as the fourth item in equivalent to reading, writing

and mathematics in the general education process, and explain why visual literacy is important for the general education process in four items. First, visual literacy is very important when it requires using the right hemisphere of the brain more for human development. Using both hemispheres of the brain in the thinking process is important in developing thinking. Second, it gives them the opportunity to understand them better by making abstract thoughts belonging to the left hemisphere of the brain convincing and concrete. Third, it provides the ability to process the same thought differently. Fourth, it enables individuals to read, understand and interpret the visual environment so that the individuals can make their own decisions, instead of being affected by the natural and unnatural environment we live in.

Art is the field of visual thinking. It is necessary to evaluate it with all the connections of visuality. In education systems, the student has to design the subjects he/she is interested in with three dimensional mental symbols. For this reason, the required visual literacy education gives the student exactly this design skill. Visual literacy improves eyesight and vision competence. Pictures always contain more descriptive elements than verbal expressions. In short, there is much to be said about the images. Therefore, art education has to make the individual understand the ability to analyze what he/she sees with the help of mental thinking method and the success of visual thinking with perceptions. This is only possible with visual literacy education.

University and Research Libraries Association (ACRL) has set five standards for visual literacy. The first of these is that the visually literate student determines the quality and scope of the visual information required. Second, the visually literate student accesses the necessary visual information effectively and efficiently. Third, the visually literate student evaluates visual knowledge and learning critically. Fourth, the visually literate student uses the visual information effectively for a specific purpose individually or as a member of a group. Fifth, the visual literate student understands most of the economic, legal and social issues which surround visual information use, accesses them and use the visual information which is ethical and legal (www.ala.org/acrl).

With this education, students;

- Perceive features like shape and size in shapes and objects,
- Distinguish color fullness and contrast,
- Perceives the distance, height and depth dimensions in the images,
- Perceives the differences in movement speed,
- Can read and use body language,
- Recognizes the objects grouped according to certain features in an image,
- Explain the meaning and use objects grouped according to certain features in an image,
- Distinguish and explain the meaning a series of intricately arranged objects, images, gestures and facial expressions,
- Determines the emphasis on a series of intricately arranged objects, images, gestures and facial expressions and explain the meaning,
- Knows the visual signs and symbols and their socially accepted meanings,
- Associates images in the same theme with each other,
- Associates visuals and their verbal equivalents,
- Transfers a series of objects, images, gestures and facial expressions verbally,
- Converts visual messages to verbal messages and vice versa (ACRL Board of Directors).

The Importance and Necessity of Visual Literacy

The visual arts education process has aimed at the visual literacy education in some of its applications in the educational programs. These practices are planned for the development of the individual. The ability of interpreting objects, symbols, and actions of the students is the result of visual literacy. Visual literacy, seen as an important competence, also supports other competences of individuals. The individual's comprehension of mastery in visual communication increases the interest and admiration for this competence.

The individual sees objects and events more clearly by using art, and can understand what the artist who performs the art feels and tries to make the others feel. We can consider this as an improved perception type. Thus, art production and art criticism develop in environments where visual literacy education is applied.

Objectives of Visual Literacy Education

Art has always had multiple functions and education is at the center of them (Shiner, 2010). Art lessons are quiet rich in content and a quiet complex process in terms of functioning. While the applied studies are carried out in the visual

field in these courses, the institutional information and information about art science are tried to be taught within a certain plan and for certain purposes at the same time. During the process, students draw, apply, knead, try to establish relationships between objects. Abilities such as impression, perception, observation, research, memory, association, imagination, cognition, knowledge, thinking, and evaluation are fully exercised and the individual in communication increases his/her learning outcomes. This is how learning happens. Since all the learning outcomes and skills of the individual are similar to the scientific process, the individual also meets the expectations of the age. In short, the individual dominates the world of science and technology with effective art education. All these means giving individuals the opportunity to become aware of their talents and develop them by art education.

Pictures are an indispensable part of education and training processes. Pictures are more effective than verbal expressions especially in teaching psycho-motor behavior. Pictures are also useful for the student to internalize the information. Instead of telling the depictions of the environment in a piece for hours, the subject can be explained in a shorter time and better on a related visual. The student will be able to explain the subject in his/her own sentences when it is necessary by bringing the material shown to the place of the event in mind (Başaran, 2003).

Languages are limited in terms of word count, but images can be expressed in unlimited words. This situation increased the importance of visual literacy more. In visual art lessons, students use design principles in both the design and analysis stages of their studies. It can be said that individuals who learn design principles and design elements can express their feelings better by using items such as color, shape and line. These individuals owe their ability to define images better to visual literacy. In addition, learning design principles helps to understand the beauty and ugliness of the natural and unnatural environment where we live in, that is, it gives a deeper environmental awareness (Chapman, 1992).

Visual Literacy Competencies

Ten visual literacy competencies are generally mentioned in the literature. These competencies are listed below (Doğru, 2014).

Visual Vocabulary Information: It is the basic components knowledge of visual language such as point, line, shape, form, space, texture, light, color, and motion.

Visual Rule Information: It is the knowledge of social acceptance meanings with visual signs and symbols.

Visual Thinking: It is the ability to understand any information given in pictures, graphics or forms that helps communication.

Staging Visuals: It is the process that creates a visual image. It explains the process of creating a visual picture.

Visual Judgment: It is consistent and logical thinking conducted through images.

Critical View: It is to apply critical thinking skills in visuality.

Visual Distinguishing: It is the ability to perceive differences between two or more visual stimuli.

Reconstructing Images: The step of reconstructing the visuals also called "Visual Reconstruction"; it is the ability to recreate a partially obstructed visual message in its original form.

Sensitivity to Visual Partnership: The ability to link between visual images in a unifying theme pattern.

Reconstruction of Meaning: It is the ability to visualize re-verbally or visually the meaning of a visual message using only the information given incomplete.

Visual Literacy and Its Place in the General Education Process

The position of the arts in social life allows the individual to improve himself by considering life with different dimensions. What provides this is the essence material used by art. In other words, art becomes internalized according to the material it forms (Mülayim, 2006).

Arnheim; argues that visual perception lays the groundwork for concept formation by providing images of objects and events. According to him/her, the eyes organize an entire life experience composed of images far beyond momentary stimuli into visual concepts. (Arnheim, 2012). According to Paul Messaris; Human beings are run into visual images every day. While films supply tears, anger and joy, and advertisements and billboards bombard the audience with visuals at each opportunity; strong emotional or mental responses are given through visual arts. Paul Messaris mentions four main conceptual levels. These; to make visual literacy gain as a prerequisite for understanding visual media, to raise awareness of the general cognitive implications of visual literacy; to provide visual manipulation and to encourage aesthetic appreciation of the images we see.

The necessity of visual literacy skills in education models of the information age can be connected to two reasons. The first of them is the result of the researchers' evaluations. According to the researchers, the effect and permanence of learning through visual means is high. The second reason is that individuals and society can develop critical thinking

about mass communication tools with visual literacy. Visual literacy is a skill that all individuals should have in the information age.

The Importance of Visual Literacy Education in the Visual Arts Course in the Light of the 21st Century Skills

Pictures and cartoon characters are used for children's speech and language development. For this reason, pictorial books are used as the first step of learning and are a very effective tool for learning. Making use of pictorial books during childhood also facilitates understanding of complex drawings and diagrams encountered in later periods. Also, pictorial books and coloring books also prepare the individual for the educational environment. Art education given to students also nurtures contemporary life and free thinking. Individuals who understand and listen to each other, respect others, have creative and original ideas are the product of societies that give necessary importance to art education. Art education, which has such an important task, is also responsible for understanding the culture, keeping it alive, developing and transferring it to future generations. Art education is like a compass that points society and artists in the right direction. Based on all these, the societies in which art develops are open to development in economy, science, culture, social life, in short, in every field. That societies catch up with the age depends on the protection and development of art. For this reason, art education is essential, and art should be an indispensable part of education. Art should enlighten the whole society as well as supporting those who are talented in this field. Because art maintains its continuity, it must address the whole society. In addition to training artists, responding to the individual's informational, cognitive, perceptual and emotional education needs by directing each individual who constitutes the society to creativity should be a duty of art education. All these reasons emphasize the importance of arts education.

Conclusion and Suggestions

Art has a great share in shaping the history of humanity. In particular, most of the information about past cultures is obtained by examining the artworks produced by those cultures. Because art is in interaction with all the values of human beings. Especially religion, politics, science, education and technology are the fields that art touches. Therefore, art is an essential part of human life. Therefore, the societies must follow the development and take art education in this development process so that they can survive.

In the information age, the use of each data or product obtained to access new information triggers the speed of development. So, more information is needed to obtain new information. Especially the speed of development in technology encourages people to keep up with this speed. The harmony between human and technology creates the information society. In the information society, change and development is observed in all areas of life. In these societies, production, design, communication tools and speed increase in the source of information and knowledge becomes indispensable for all sectors. The understanding of substance-based production, which is essential in the industrial society model changes as knowledge production in the information society. In addition, while industrial societies evaluate the literacy rate as a measure of development, the criterion in the information society is production based on science and technology. Therefore, knowledge societies have attached importance to skills such as creativity, critical and analytical thinking, literacy in different disciplines. These skills are necessary for the evaluation and production of knowledge and technology.

The visual literacy skill used for the development of visual arts should be gained to the individual in different ways. The most important of these is that the individual absorbs basic visual competencies. Visual arts also have a language. This language also has its own rules. This language covers all visual arts basic education. Therefore, the individual's visual arts knowledge and the level of mastery of this language will directly affect his/her visual literacy skill. The importance given to art education is the importance given to the skills that are the requirements of the age in a sense.

Although art education seems to be independent from the positive sciences, there is a close relationship between them. Art is the face of science reflected in the product. In addition, the aesthetic dimension of art in the modern world is effective in the appreciation of the products. Information and technology cannot develop independently from arts education. Therefore, visual literacy skill should be included in the planning of arts education. Educational environments should be planned accordingly. Because individuals believe that visual literacy is necessary, it is essential to be concretized the learning outcomes of this skill. Visual arts education environments should be planned in a way to increase the interaction and communication of individuals. Technology products and programs, which are indicative of the information age, should be used actively in visual arts education.

It should be provided that students gain the necessary knowledge, skills and experience to use technology in visual arts lessons. Each individual should have a visual arts education. The interest and ability areas of individuals who are

interested in visual arts education and are talented in this field should also be determined and visual literacy skills should be acquired.

Visual literacy and other skills have not been integrated fully into the education system. For this reason, first of all, how to give visual literacy education in visual arts education and how to measure this skill should be determined. Research should be done on the relationship between basic arts education and visual literacy skills and how they can support each other. Support can be obtained from art educators, visual arts teachers, instructional technology experts, education programmers and relevant academicians in these studies. The evaluation of literacy education practices in visual arts will also be effective in the development of new programs. The development of visual literacy skills in the education program should be supported with learning outcomes.

Visual literacy skill, which is quite new as a concept, should be understood absolutely by visual arts and other related branch teachers. It would be beneficial that on-the-job trainings are given for the teachers who will apply the program and follow its development. Teachers who have sufficient knowledge on this subject will accelerate the development of visual literacy skills in students.

21st century skills are the product of the information age. That these skills act in harmony with each other and are developed simultaneously is important in order to be met the expectations. The visual literacy skill to be developed in students will also prepare them for the future. The efficiency of art education and the development of students' knowledge, skills, creativity and abilities are possible with the inclusion of visual literacy in the arts education program.

Limitation of the Research

This research study is limited to only visual arts literacy among the 21st century skills. It is also limited to Visual Arts lesson and classroom activities.

Biodata of the Author

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References

ACRL Information Literacy Competency Standards Review Task Force (2012). *Task force recommendations*. http://www.ala.org/acrl/sites/ala.org.acrl/files/content/standards/ils_recomm.pdf

Adıgüzel, Ö. (2015). *Eğitimde yaratıcı drama (Creative drama in education*) (8th ed.). Ankara: Pegem Akademi.

Akçam, K. (2006). *Görsel okumanın İlköğretim 5. sınıf bilgi verici metinlerde anlam kurmaya etkisi (Effects of visual reading on the comprehension level of expository texts of the primary school fifth grade students).* Master Thesis, Gazi University, Ankara, Turkey.

Akıncı Çötok, N. (2006). *Sanayi toplumundan bilgi toplumuna geçiş (Transition from industrial society to information society).* Master Thesis, Sakarya University, Sakarya, Turkey.

Arnheim, R. (2012). *Görsel düşünme (Visual Thinking)* (3rd ed). (R. Öğdül, Trans) İstanbul: Metis Yayınları.

Avgerinou, M., & Ericson, J. (1997). A Review of the Consept of Visual Literacy. *British Journal of Educational Tecnology, 28,* 280-291.

Aydede, M. N. (2009). *Aktif öğrenme uygulamalarının öğrencilerin kendi kendine öğrenme ve eleştirel düşünme becerileri ile öz yeterlilik inançlarına ve erişilerine etkisi (The effect of active learning practices on students' self-learning and critical thinking skills, self-efficacy beliefs and achievements).* PhD Thesis, Dokuz Eylül University, İzmir, Turkey.

Başaran, M. (2003). *İlköğretim 4. ve 5. sınıflarda öğretmenlerin Türkçe derslerinde öğretim materyalleri kullanma durumları (The use of teaching materials in Turkish lessons by teachers in the 4th and 5th grades of primary education).* Master Thesis, Gazi University, Ankara, Turkey.

Besler, H. (2015). *Dijital ve medya etkinliklerinin ortaokul öğrencilerinin ve ebeveynlerinin medya ve bilim okuryazarlıklarına etkisinin belirlenmesi (Determining the effects of digital and media activities on media and science literacy of secondary school students and their parents)*. Master Thesis, Pamukkale University, Denizli, Turkey.

Buyurgan, S., & Buyurgan, U. (2012). *Sanat Eğitimi ve Öğretimi (Arts Education and Teaching)* (3. Edition) Ankara: Cantekin Matbaası.

Chapman, H. (1992). *EA world of images*, Davis Pub. Inc., 42-69.

Debes, J. (1969). *The loom of Visual Literacy: An overview* (Vol.14). Audiovisual Instruction.

Demir, E. (2016). *Fen laboratuvarlarının fiziki şartlarının ve Fen Bilimleri öğretmenlerinin laboratuvar güvenliği konusundaki bilgi düzeylerinin araştırılması (Investigation of the physical conditions of science laboratories and the knowledge level of science teachers about laboratory safety).* Master Thesis, Gazi University, Ankara, Turkey.

Doğru, A. G. (2014). *Lise düzeyi Görsel Sanatlar dersinin, öğrencilerin görsel okuryazarlık becerilerinin gelişimine etkisi (The effect of high school level Visual Arts course on the development of students' visual literacy skills).* Master Thesis, Gazi University, Ankara, Turkey.

Durukan, A. Y. (2015). Dijital Dünyada Okul Kütüphaneciliği ve 21. Yüzyıl Becerileri (School Librarianship and 21st Century Skills in the Digital World). *Milli Eğitim Dergisi, 44*(208), 106-120.

Ekici, G., Abide, Ö. F., Canbolat, Y. & Öztürk, A. (2017). 21. Yüzyıl Becerilerine Ait Veri Kaynaklarının Analizi (Analysis of Data Sources on 21st Century Skills*). Eğitim ve Öğretim Araştırmaları Dergisi, 6*(Special Issue 1), 124-134.

EnGauge, A. (2003). *21st century skills for 21st century learners: Literacy in the digital age*. Retrieved from: www.ncrel.org/engauge

Erdem Keklik, D. (2016). Value Orientations Of Candidate Teachers in Knowledge Society. *Eurasian Journal of Educational Research, 66,* 355-372. dx.doi.org/10.14689/ejer.2016.66.20.

European Union (2002). *Commission Regulation (EC) No 221/2002 of 6 February 2002 amending Regulation* (EC) No 466/2001 setting maximum levels for certain contaminants in foodstuffs. Brussels.

Fadel, C., Bialik, M. & Trilling, B. (2015). Four dimension education. the competence learner need to succeed. Boston: The Center For Curriculum Redesign.

Feinstein, H., & Hagerty, R. (1994). *Visual literacy in general education*. University of Cincinati, (pp. 205-212).

Hortin, J. (1980). *Visual literacy and visual thinking.* ED214522: Eric Document.

Kavuran, T. (2003). Sanat ve bilimde gerçek kavramı (The concept of truth in art and science*). Erciyes Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 1*(15), 225-237.

Kırışoğlu, O.T. (2002). *Sanatta Eğitim Görmek-Anlamak-Yaratmak (Studying-Understanding-Creating in Art),* Ankara: Pegem Yayınları.

Kırtak Ad, V. N. (2017). *Tam stüdyo modelinin Fen Bilgisi öğretmen adaylarının kavramsal anlamaları ile sosyal duygusal öğrenme, sorgulama ve bilimsel süreç becerilerine etkisi: Akışkanlar mekaniği örneği (The effect of full studio model on pre-service science teachers' conceptual understanding and social emotional learning, inquiry and scientific process skills: Fluid mechanics example).* PhD Thesis, Balıkesir University, Balıkesir, Turkey.

Kuruüzümcü, R. (2010). Bir dijital ortam ve sanat formu olarak sanal gerçeklik (Virtual reality as a digital medium and art form). *Sanat Dergisi, 1*(12), 93-96.

Mercin, L. & Alakuş, A. O. (2007). Birey ve toplum için sanat eğitiminin gerekliliği (The necessity of art education for the individual and society), *D.Ü. Ziya Gökalp Eğitim Fakültesi Dergisi, 9,* 14–20.

Mülayim, S. (2006). *Aklın İzleri (Traces of the Mind).* İstanbul: Arkeoloji ve Sanat Yayınları.

ISTE (2007). *National Educational Technology Standards for students,* http://www.iste.org/docs/pdfs/nets-s-standards.pdf?sfvrsn=2

Organisation For Economic Co-Operation And Development [OECD] (2005). The definition and selection of key competencies [Executive Summary]. http:// www.oecd.org/dataoecd/47/61/35070367.pdf

Özden, Y. (2014). *Öğrenme ve öğretme (Learning and teaching).* (12 edit.). Ankara: Pegem Akademi.

Partnership for 21st Century Skills. (2006). Framework for 21st century learning. http://www.p21.org/storage/documents/docs/P21_framework_0816.pdf

Shiner, L. (2010). *Sanat ve kuram dizisi (Art and theory series),* (2. ed). Ankara: Ayrıntı Yayınları.

Türkiye Zekâ Vakfı. (2017). *Bilim insanlarının başarısız okul hayatları (The failed school lives of scientists).* https://www.tzv.org.tr/#/haber/516

Yolcu, E. (2007). *Sanat Eğitimi Kuramlar ve Yöntemleri (Art Education Theories and Methods),* Ankara: Nobel Yayıncılık.