

ART EDUCATION

An Overview

Editor

Asst. Prof. Dr. Başak DANACI POLAT

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FOREWORD

Art education is quite important in an individual's educational life. It is not just an education that talented individuals should partake, as commonly thought, but all individuals should benefit from it. Thus, happy individuals with an aesthetic indulgence, awareness about their culture, art, and preservation, respect for the art of different cultures, tolerance, a creative perspective could be trained. In the book, the significance of art education was emphasized and the main issues in art education were discussed.

The present book, published to identify certain basic issues in different fields of art education, to investigate and discuss these issues with scientific methods, and to fill the gap in the literature, scrutinized music education and especially visual arts education. The book includes seven chapters, five of which are on visual arts education and two on music education. The titles of these chapters are as follows: Chapter 1, Artistic Development Stages Of Children, Chapter 2, Discipline-Based Art Education, Chapter 3, Art Criticism In Visual Arts Education, Chapter 4, Museum Education And An Application Proposal Based On Multiple Intelligences Theory, Chapter 5, Museum And Disabled Individuals, Chapter 6, General Music Education From Creativity Perspective, and Chapter 7, Voice Physiology and Vocal Training.

The book aims to serve as a reference for researchers, teachers, and pre-service teachers. I would like to thank our esteemed authors, respectable referees, and the staff of Livre de Lyon Publishing House, who contributed to the creation of this book.

December, 2021
Asst. Prof. Başak DANACI POLAT
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CHAPTER 1

ARTISTIC DEVELOPMENT STAGES OF CHILDREN

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1. Introduction

Regardless of the branch, child development is an important issue. The child exhibits artistic development as well as physical, social and psychological development. Victor Lowenfeld and Brittain (1964) reported that individual expression through art is essential for healthy emotional development. According to Lowenfeld, the systematic artistic development stages of the child include 1. Scribbling Stage (2-4 years), 2. Pre-Schematic Stage (4-7 years), 3. Schematic Stage (7-9 years), 4. The Dawning Realism Stage (9-11 years), and 5. The Pseudo-Naturalistic Stage (11-13 years old) (cited by Kırıçoğlu, 2002, p. 75). In the present study, which was based on the above-mentioned common approach and order, the stages of development were re-investigated with a different classification to scrutinize the topic with a more detailed and comprehensive approach. Thus, the process of the child from the scribbling period to the High School (Adolescence Crisis Stage) period is called the artistic development stages of the child. In this process, the calendar age of the child is quite important. Also, questions such as which properties should be observed in different calendar ages, the development of concepts such as ratio-proportion and big-small, understanding of color, and the introduction of rhythm and movement in the child's paintings should be answered.

The most important principle that should be considered in all stages of the artistic development of the child is the relativity to the child. It is very important to know at what age the child possesses certain characteristics to determine whether the child exhibits the characteristics of her or his age. The child should

definitely experience the characteristics of age. If this is prevented by anyone (parents, teachers and other adults), the child cannot move to the next level or lags behind. This type of lag hinders the accurate observation of the artistic development of the child. If scribbling of a 3-year-old child is prevented, the child will experience difficulties in later years since that stage was not completed. On the other hand, a child who should exhibit the characteristics of the 12-13 age group could exhibit the characteristics of a much lower age group if the child had missed a stage previously. The aim is the adoption of the characteristics of the age group by the child parallel to individual differences. In the process, if the communication with the child and childcare are adequate, the child could be raised to an accurate developmental level. Because the child would be ready and susceptible to exhibit the developmental attributes of the developmental stage.

Before the in-depth analysis of the artistic development stages of the child, child types and child painting characteristic is discussed based on visual perceptions to recognize the artistic competencies of the child.

2. Child Types Based on Visual Perception

There are three main types of children based on visual perceptions:

1. Impressionist Type
2. Constructive Type
3. Hybrid Type

The impressionist and constructive child types are known as the pure types. The hybrid type, on the other hand, entails a mixt of both pure types (Balci, 2009). Furthermore, three methods are employed to allow children to express themselves in the visual arts course:

- _ Linear work
- _ Colored work
- _ Three-dimensional work and variations.

Thus, the above-mentioned methods were adopted in the discussion of the artistic development stages of the child and visual perception.

2.1. Impressionist Type

Impressionist type children do not draw details in their paintings since they perceive all objects except themselves as a whole. They paint only with contour lines. For example, when drawing a tree, they do not include details such as branches or leaves. Scribbles could only be observed on the faces of human and animal figures. Everything else is drawn with contour lines (Balcı & Çelikcan, in print).

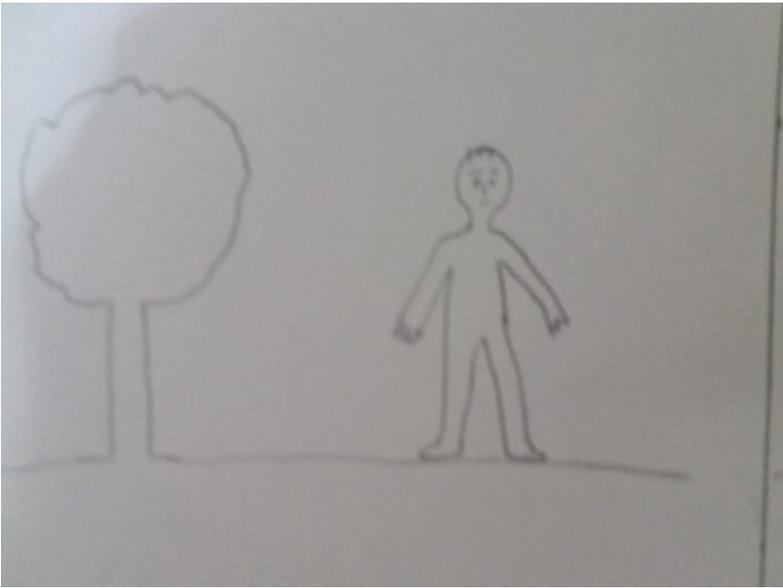


Image 1. (From the archive Yusuf Baytekin Balcı,
“Artistic Development of the Child”)

When working with impressionist type children, the aim is not to make the child paint beautiful paintings. The main objective is to help them express themselves as aesthetically as possible. Linear works are boring for impressionist-type children. Generally, they do not like this kind of work, avoid it, or try to finish the painting as soon as possible.

Impressionist type children are quite successful in painting and color use. This type of child, who uses bright colors and poetic and enthusiastic

expressions, tries to cover the wide lines with large spots of color. However, one of the most important features of their paintings is the use of replacement colors rather than the original. For example, they can paint green grass in blue or the yellow sun in red.



Image 2. Age 6. (From the archive Yusuf Baytekin Balcı, “Artistic Development of the Child”)

In Image 2, the child covered large surfaces with colors and no detail is depicted.

2.2. *Constructive Type*

The constructive child type is completely the opposite when compared to the impressionist type. Constructive children perceive all objects in pieces other than themselves and go from the object to the whole. For example, in a tree drawing, they include minute details such as branches, leaves, and fruits, as well as the trunk. In human and animal figures, on the other hand, they include the details of only the people and animals they care (Balcı & Çelikcan, in print).

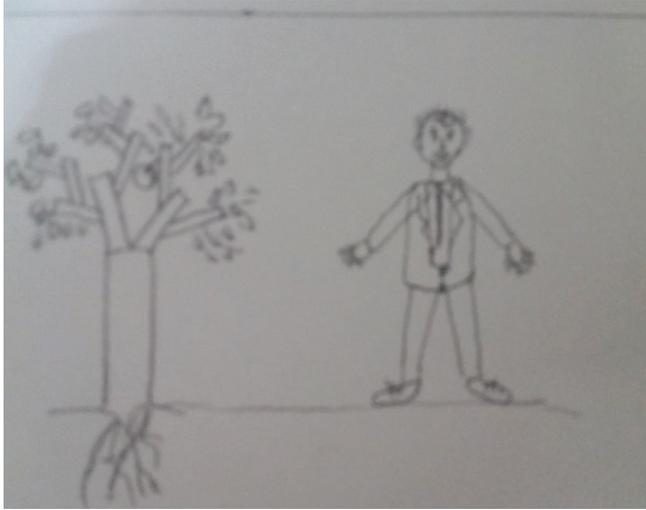


Image 3. (From the archive Yusuf Baytekin Balcı,
“Artistic Development of the Child”)

In the above drawing, the child attempts intrinsically to prove her or his knowledge. Constructive type children do not use too much color in their paintings. However, they are very successful in three-dimensional expression. They reflect themselves best in three dimensions. For example, it was determined that they were more successful in clay or play dough when compared to other types of children.



Image 4. Age 7. (From the archive Yusuf Baytekin Balcı,
“Artistic Development of the Child”)

The child employed the part to the whole approach with trees and figures in the painting.

2.3. *Hybrid Type*

The hybrid type is the combination of the two other types. This type of child both express the whole with contour lines and want to draw the details. It was observed that this type of children, who are quite common, generally experience a lag in development (Balçı, 2009).

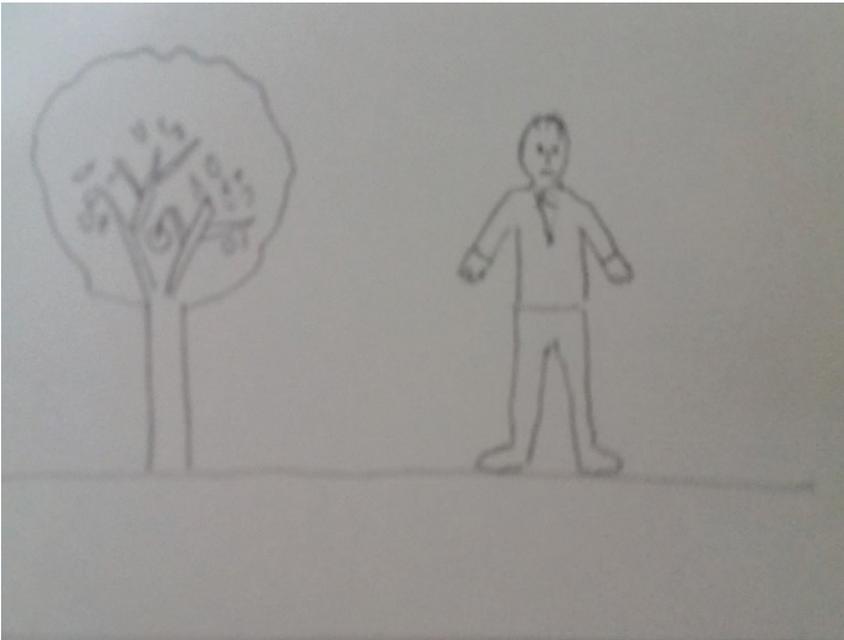


Image 5. (From the archive Yusuf Baytekin Balçı, “Artistic Development of the Child”)

When it is recognized that the child is not in an age-appropriate developmental stage, an intrusive approach should not be adopted. For example, a child who paints the sky red should be asked whether the sky could be red. We should try to encourage the creative imagination of the child instead of limiting the imagination. Similarly, the child may not know how to paint the gaps on the paper. If the child is instructed to draw a house or a tree, this would be a rote-based approach. Instead, we should get information from the child with the question-and-answer method. For example, when the child does not know what

to draw in an autumn painting, we should ask the child about the autumn and the changes that occur in the environment during fall and mobilize the imagination of the child and make the child reflect.



Image 6. Age 8. (From the archive Yusuf Baytekin Balcı, “Artistic Development of the Child”)

In Image 6, it could be observed that the child exhibited both constructive and impressionist characteristics with the contour lines, the whole painting, and details, especially in the tree.

3. The Characteristics of Children’s Painting

The characteristics of children’s painting are discussed based on common and different characteristics in children’s and adult painting. From this point of view, these qualities, which are completely unique to them; characteristics of children’s paintings are scrutinized in four categories: leveling and rotation, size hierarchy, transparency, and complementation (Artut, 2007).

3.1. *Levelling and Rotation Property*

Unlike adults, children paint what they know instead of what they see until the age of 9 (visual reality stage)(Balçı, 2009). This period starts in the pre-school period, also called early childhood, and lasts until the primary school age. For example, when adults draw a table, they stand in front of the table and try to draw the most accurate resemblance of the table, following certain perspective rules. However, the children think of the table and draw it as they imagine it. Generally, they are in the logic of making the pictures flat on a flat surface. For example, showing the four wheels of the car, drawing the figures horizontally to the right and left, showing the four legs of the table (Artut, 2007).

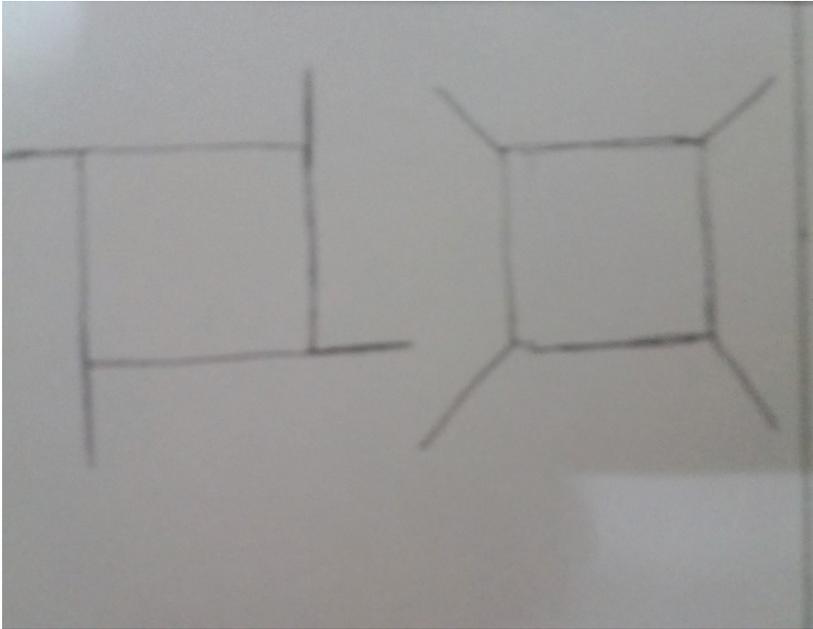


Image 7. (From the archive Yusuf Baytekin Balçı, “Artistic Development of the Child”)

Children do not worry about making a mistake when painting and they are usually self-centered. This allows them to be very comfortable when painting since they think that what they paint is right and beautiful. For example, the road only includes two lines for them.

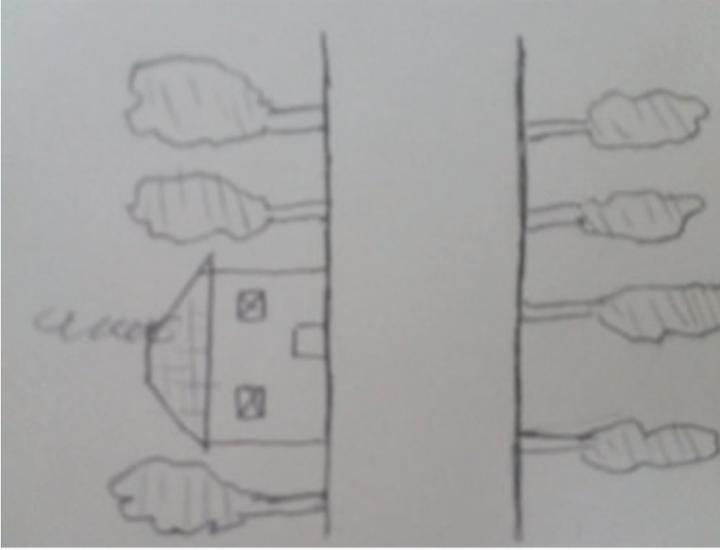


Image 8. (From the archive Yusuf Baytekin Balcı,
“Artistic Development of the Child”)

Children who try to express that they know everything, sometimes turn the paper when painting or they stand up and change their position with respect to the paper. As adults and visual arts educators, we must tolerate such behavior and be patient and tolerant towards these attitudes.



Image 9. Age 4. (From the archive Yusuf Baytekin Balcı,
“Artistic Development of the Child”)

In Image 9, the child painted all the trees, objects, and vehicles on the left side of the road that was expressed and painted the leveled of the building on the left.

3.2. *Size Hierarchy*

Children’s paintings reflect a lot to both visual arts educators and parents. The most prominent characteristic of these paintings is the size hierarchy. Children tend to draw the people and objects they love bigger, and the people or objects they do not like or fear smaller (Yolcu, 2004). For example, they paint the mother like a giant, while the objects painted next to the mother are small. Also, sibling jealousy could be reflected in tiny sibling figures on paper. Since the child does not recognize perspective or has no such concern, all the paintings she or he paints are beautiful. The artistic effort to create beauty (Balçı, 2016) is reflected instinctively in children’s paintings.



Image 10. Age 6.5. (From the archive Yusuf Baytekin Balçı, “Artistic Development of the Child”)

3.3. *Transparency Property (X-Ray Painting)*

Children reflect both visible and invisible interior surfaces in their paintings to prove their knowledge in paintings. These children who try to tell us what they

know, paint the infant in the womb of their pregnant mother and all household items in the house as if the house is made of glass. This is also a defining property of the universe, which Luquet called cognitive reality (intellectual realism) (cited by Yavuzer, 2013).



Image 11. Age 3.5. (From the archive Yusuf Baytekin Balcı, “Artistic Development of the Child”)

3.4. Complementation Property

The self-centered efforts of the child to paint relevant or irrelevant objects to the subject to prove her or his knowledge is considered as the complementation property. For example, in topic “Our Home”, the child could draw the entire house, even the whole street and is not worried about doing something wrong and the child is relaxed. However, the child may experience creative pains in these types of paintings. Thus, the child may exhibit abnormal behavior. In such cases, the educators should be patient and tolerant. In addition, since children evaluate every subject from their own perspective, they draw beings not as they see them, but as they know and think (Artut, 2013).



Image 12. Age 7. (From the archive Yusuf Baytekin Balcı, “Artistic Development of the Child”)

In Image 12 on vehicles, the child has painted a rich work by including the whole room known to the child with the leveling and rotation property.

4. Artistic Development Stages

Since it is a basic classification method, life is reported to include three main developmental stages: child development, adolescent development and adult development (İnanç, Bilgin & Atıcı, 2012). Among these, child development has been the most emphasized and studied period. Because children rapidly go through several changes and transformations in the child development stage. These changes and transformations significantly determine the perceptions, behavior and lifestyles of children in adulthood. Thus, several studies focused on paintings that are accepted to reflect the most natural expressions of children. In fact, children’s paintings are utilized as a means of expression, especially by children whose linguistic skills are still in development (Kutluer, 2014).

It is also of great importance to address paintings, which reflect the inner world of the child, with an objective approach and analysis method.

Because in children's paintings, subjective interpretation could lead to an uncontrollable variable (Yavuzer, 1998). Studies have been conducted by several authors to analyze children's paintings with an objective and rational approach.

The artistic development of children has been theorized by certain leading researchers such as Rouma (1913), Luquet (1927) and Lowenfeld and Brittain (1964). In this sense, if we look at the child's artistic development steps; The most systematic and at the same time the most accepted approach from past to present about developmental periods has been Lowenfeld's ranking (Kırıçoğlu, 2002). This sequence is as follows: 1. Scribble Period (2-4 years old) 2. Pre-Diagram Period (4-7 years old) 3. Schematic Period (7-9 years old) 4. Realism Period (9-11 years old) 5. Logic Period (11-13 years old). However, over time, different authors have detailed these developmental stages (Balcı & Çelikcan, in print; Luquet, 1927) and added different sub-developmental stages. These different stages of sub-development are described in detail below.

4.1. Scribbling Stage (2 – 4 Years)

During the scribbling stage, the child discovers how to mark the paper or any surface with a pencil or any other available tool. This stage where the child draws random lines is called the “meaningless simple scribbling stage” by Rhoda Kellogg (Yavuzer, 2013). The children extremely enjoy these random scribbles or marks. In a sense, these scribbles that occur during play allow the child to spend some energy.

In the six-month scribbling stage, the child first draws vertical lines, then horizontal lines, and towards the end of the stage, the child draws circular lines. The child does not worry about the similarity to the original in paintings since this is a game for the child. The child, by nature, goes through a learning process when scribbling. The main issue is the parents' approach to the child. Parents often prevent the child from scribbling because they are afraid that the child would scribble on the walls or would get dirty. Thus, the child would either fail to complete this stage or lag behind. Both parents and educators should pay attention to the feeling of confidence and approval that the child should perceive. When this is done, the child would easily pass the stage and be ready for the next.

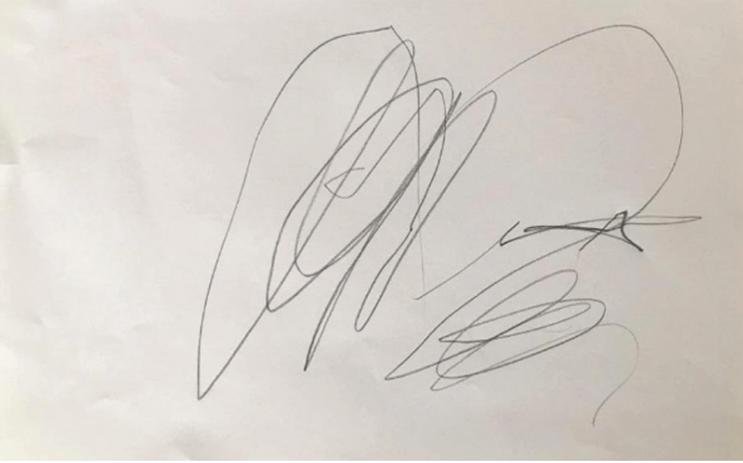


Image 13. B/ Age 1 year 7 months. (From the archive Huriye Çelikcan)

4.1.1. Emulation and Demand Stage (2 - 3 Years)

After the age of 2, the child draws pictures to emulate an object instead of scribbling randomly. The child also gives names to these paintings. However, we adults could not recognize these objects. However, we can learn what they are by asking the child (Balcı, 2009).



Image 14. E/ Age 2 years 3 months. (From the archive Huriye Çelikcan)

4.1.2. First Symbolic Expression Stage (3 – 4 Years)

When three years old, the child could control the line drawn parallel to the control of her or his movements. Kellogg called this stage the “eloquent forms stage” since geometric shapes are observed quite frequently in paintings (Yavuzer, 2013). After the age of three, we adults can understand children’s paintings. The first figurative drawings are observed in this stage.

Their first figures or symbols are usually their parents or people in their circle. In this stage they frequently draw stickmen, the details on the head and face drawn as a circle are important. However, the child does not pay any attention to the head, legs, arms, and torso (Balıcı & Çelikcan, in print). Since the ideas of surface, shape, and scheme have not developed yet, the other parts of the body are shown in simple lines. In this stage, where the child does not have a spatial perception, the figures and objects fly in the air. There is no proportion ratio in the paintings. The approach to color is haphazard. The child can use any random color. The perception of color that develops over time only includes colors painted over each other in this stage and looks like mud. Furthermore, flower figures created by drawing semicircles around a circle and the sun figure formed by drawing arrows around the circle are frequently seen in paintings in this stage.



Image 15. H/ Age 3 years 1 month. (From the archive Huriye Çelikcan)

4.2. Pre-Schematic Stage (4 – 7 Years)

In the pre-schematic stage, the children exhibit significant developments in the expression of ratio, proportion, and space in paintings. The objects and their parts reflect almost realistic ratio and proportion, but the concept of ratio-proportion has not fully developed yet since the child could not recognize the relationship between the objects. For example, the child could draw a tiny house next to a huge tree. Furthermore, the child usually centers her or his figure on a distance between the other objects. Thus, the child adjusts to other objects and figures around self. Objects that once floated in space are now restricted to a ground line (spatial line). However, the approach to surface-space has not fully developed. Thus, each object or figure in the painting has its own line-space (Balcı & Çelikcan, in print).

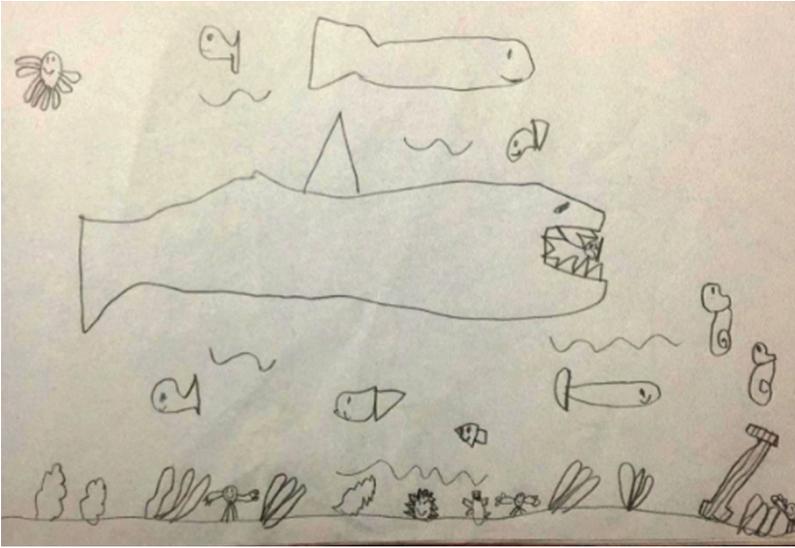


Image 16. K/ Age 5 years 11 months.(From the archive Huriye Çelikcan)

In figure drawings, the head, body, arms, and legs are now in double lines. Also, they usually prefer measured types (reflections of their knowledge) in figures (Balcı & Çelikcan, in print). In this stage, they cannot still draw moving figures, the objects are drawn from the front. Children avoid too many figures; thus, they cannot draw weddings, festivals or celebrations. Also, they repeat the lines that represent the details of human faces in the faces of non-human faces as well (animal figures). Furthermore, they start to draw a house with a cone on top in this stage. Even the apartment buildings are coned.

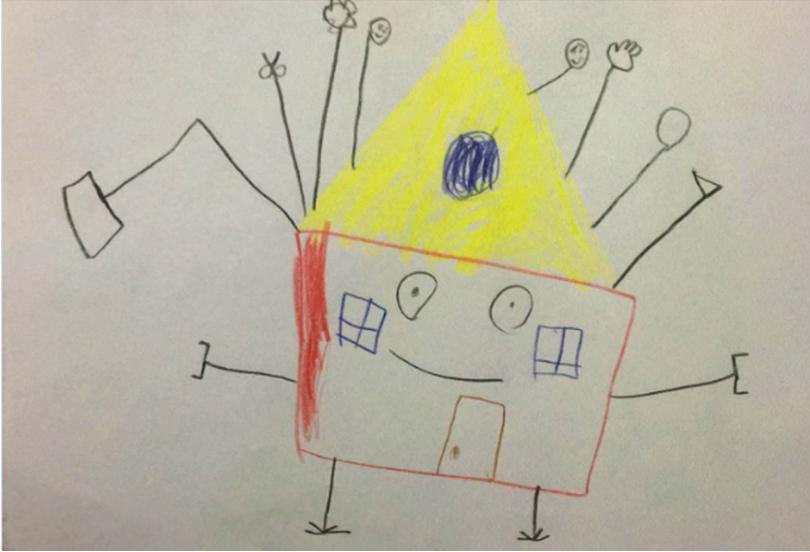


Image 17. K. E/ Age 6 years 7 months. (From the archive Huriye Çelikcan)

The most distinctive characteristic of the children is the development of a color approach in this stage. They paint objects in normal colors with thick brushes or lines. The understanding of painting objects in their familiar colors is called “heraldry understanding” (Balcı & Çelikcan, in print). The ages of 4 to 6 are known as the stage when individuals are most sensitive to color as evidenced in an experiment conducted by Bayley (2006). Bayley conducted an experiment to determine whether the colors or the forms were important for the children in this stage. Bayley presented geometric shapes cut as a triangle, square, circle, star, etc. from cardboard and painted in different colors to the subjects and asked them to organize them as they wished. The experiment demonstrated that children younger than 4 organized the shapes based on the form. In other words, children in this age group grouped the cardboard pieces based on their shape, not their color. Children in the 4-6 age group, on the other hand, organized the cardboard pieces based on color rather than form. Reds were grouped on one side and blues on the other. When the experiment was conducted with adults, all classifications were based on form (group of squares, triangles, etc.). Thus, Bayley (2006) reported that the period when people were most sensitive to color was between the ages of 4 and 6. However, it is important to note that this stage is significant for the recognition of pure colors. The ability to mix to create new colors is not developed yet.



Image 18. S/ Age 6 years 6 months. (From the archive Huriye Çelikcan)

4.2.1. *Concrete Operation Stage (6 Years)*

Age six corresponds to the kindergarten period. Since mental development advances, the child shifts from a line-space approach to a surface-space approach. During this stage, the child begins to paint large figures, and although the perception of ratio-proportion is not quite correct, it is almost there. The color selection is conscious, but it could often be observed that there is a shyness due to the influence of the adults. Still, the frontal view of the objects and movement is painted, and albeit static, the paintings are quite close to reality in this stage. Also, children could easily draw the clothing patterns and facial details in detail (Balcı, 2009).



Image 19. N/ Age 6 years 2 months. (From the archive Huriye Çelikcan)

4.3. *Objective Realist (Schematic) Stage (7-9 Years)*

In this stage that coincides with the primary school age, an element of movement is included the paintings. The children can draw sitting and running figures. They are also very good at drawing the movements of animals. However, since the movement element is a novelty in children's paintings, they may experience some difficulties. The child should be supported and tolerated in this process.

In this stage, the relations between the objects and their ratios and proportions are more realistic and more accurate. In this stage, the skyline also begins to appear in children's paintings, and the child draws pictures that demonstrate awareness about the objects and figures around the child.



Image 20. Ö/ Age 8 years 3 months. (From the archive Huriye Çelikcan)



Image 21. E/ Age 8 years month. (From the archive Huriye Çelikcan)

Until 9 years old, children paint what they know, not what they see (Balcı, 2009). It takes time to separate these children, who tend to draw what they know, to switch from their dreams or imagination to the real world. However, this changes when they are 9, and they begin to paint not what they know but what they see.



Image 22. E/ Age 8 years 1 month. (From the archive Huriye Çelikcan)

4.4. Visual Realism Stage (9 - 11 Years)

In this stage described defined as “the visual realism stage” by Luquet (1927), the children, who used to paint what they know comfortably, could now draw what they see accurately. The children, who start to look at their old paintings with a critical eye, would experience difficulties and feel that they cannot paint. Thus, this stage is also called the “critical stage” (Balcı & Çelikcan). A child who goes through this period in a healthy manner would have a positive attitude towards painting in the future.



Image 23. A. T/ Age 9 years 1 month. (From the archive Huriye Çelikcan)

It will take some time for the children, who used to be quite comfortable and imaginative when painting before, to start painting with comfort what they see. Because the children compare the paintings with real objects, and they may think they cannot paint (Balıcı & Çelikcan). In this process, both parents and teachers should motivate the child to paint better. For example, we have to mentally prepare the child to paint a “marketplace” themed painting. We should ask associative questions and allow the child to make comparisons. In other words, we should help the child use an active imagination when comparing the painting with reality.

The personal development level is different in each child, but in general, in this stage, children should be informed about ratio and proportion and they should be allowed to observe accurate ratios and proportions. In this stage, as several things change in the children’s painting, they leave their poetic and enthusiastic expressions behind and the paintings begin to solidify. The children’s paintings start to reflect movement in this stage, but they are still unfamiliar with perspective. However, the child is aware that the objects in the front seem larger and those at the back seem smaller and tries to reflect this observation in her or his paintings.



Image 24. R/ Age 9. (From the archive Huriye Çelikcan)

4.5. Middle School (Reality- Logic Era) Stage (11-13 Years)

During this stage, when the children experience significant changes in physical and mental development, they may exhibit certain abnormal behavior. Certain children are enthusiastic and extroverted, while others are introverted. Furthermore, the children become aware of their sexual development during this stage and show signs of puberty. Thus, abnormal behavior should be accepted and considered normal.

In their paintings, children could select topics based on gender. For example, boys could draw action heroes in their paintings due to the influence of action movies (Batman, Spiderman, etc.). Girls, on the other hand, prefer romantic topics. They prefer figures with big eyes and make-up, and they usually paint about the theme of love. Therefore, the paintings of this age group reflect the gender of the painter. However, in this stage, the children are interested in details and do not want to share their pictures with anyone and would not explain them (Yavuzer, 2013).

Furthermore, the childish enthusiastic expression is replaced by an adult-like approach. In this stage, they can paint with watercolors, collages, gouache paints, three-dimensional paintings, clay, and employ waste material. Rope and potato printing and monotype prints, which is a slightly more advanced technique, could be adopted in this stage. However, oil paint is not recommended for children in this stage, as it is a health hazard.

4.6. High School (Adolescence Crisis Stage) Stage (After 13 Years)

After the age of 14, children's paintings are considered adult paintings. In the words of Balcı (2009), it is called "High School or Adolescence Crisis" these paintings are no longer expressionist, but the children are aware of the technique, have aesthetical concerns and there are expectations about the product, not only about the process.

In this stage, with the contribution of the visual arts course, the child will learn about art and artistic movements and ultimately emulate the artists. The child who wants to "be like Matisse or Van Gogh" has a sense of style. Educators should not neglect this. Individuals should be assisted in their search for a style with the right counseling. The adults should not try to impose their tastes and skills on the child. In other words, guidance should be avoided. For example, a visual arts teacher who likes realist painters should not hinder the child's perception with harsh comments about the deformed figures drawn by the student. It could be suggested that the higher the stylistic diversity and paintings in a classroom, the more successful the educator.

Furthermore, museum visits could be organized for the children in this stage and they could be motivated to paint reproductions. Oil and acrylic paints could be employed in this stage.

5. Conclusion

The findings obtained with the analysis of children's paintings played an important role in the development of the theories on the artistic development of children. As mentioned above, in the visual arts course, since the instruction should consider the principle of relativity to the child, when the child tries to tell us something through art, each child's development course should be observed accurately, and individual differences should be accounted for. Because painting does not only lets the child have a good time. Painting is also a learning process, as it offers an opportunity for the psychological, social and aesthetical development of the child (Yavuzer, 2013). Furthermore, although

painting activity is considered a good method to learn about the child by several authors, it should also be considered as a communication tool that allows us to hear the inner voice of the child.

Thus, unlike the other branches, the aim of the visual arts course should include respect for individual differences, assistance for the children to achieve the requirements of their age group and the implementation of the student-centered approach. If this is not accomplished, the child could not complete the artistic development stages on time and lag behind in development. To achieve these objectives, parents and educators should work in cooperation (Artut, 2013). As individuals who know and understand the child, both parents and educators should analyze the child's creative needs and motivate the child for further achievements in artistic activities. Furthermore, the child's self-esteem and motivation should be supported for the child to feel free, successful and safe.

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Image References

- Image 1. (From the archive Yusuf Baytekin Balcı, “Artistic Development of the Child”)
- Image 2. Age 6. (From the archive Yusuf Baytekin Balcı, “Artistic Development of the Child”)
- Image 3. (From the archive Yusuf Baytekin Balcı, “Artistic Development of the Child”)
- Image 4. Age 7. (From the archive Yusuf Baytekin Balcı, “Artistic Development of the Child”)
- Image 5. (From the archive Yusuf Baytekin Balcı, “Artistic Development of the Child”)
- Image 6. Age 8. (From the archive Yusuf Baytekin Balcı, “Artistic Development of the Child”)
- Image 7. (From the archive Yusuf Baytekin Balcı, “Artistic Development of the Child”)
- Image 8. (From the archive Yusuf Baytekin Balcı, “Artistic Development of the Child”)
- Image 9. Age 4. (From the archive Yusuf Baytekin Balcı, “Artistic Development of the Child”)
- Image 10. Age 6.5. (From the archive Yusuf Baytekin Balcı, “Artistic Development of the Child”)
- Image 11. Age 3.5. (From the archive Yusuf Baytekin Balcı, “Artistic Development of the Child”)
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- Image 13. B/Age 1 year 7 months. (From the archive Huriye Çelikcan)
- Image 14. E/ Age 2 years 3 months. (From the archive Huriye Çelikcan)
- Image 15. H/ Age 3 years 1 month. (From the archive Huriye Çelikcan)
- Image 16. K/ Age 5 years 11 months. (From the archive Huriye Çelikcan)

Image 17. K. E/ Age 6 years 7 months. (From the archive Huriye Çelikcan)

Image 18. S/ Age 6 years 6 months. (From the archive Huriye Çelikcan)

Image 19. N/ Age 6 years 2 months. (From the archive Huriye Çelikcan)

Image 20. Ö/ Age 8 years 3 months. (From the archive Huriye Çelikcan)

Image 21. E/ Age 8 years month. (From the archive Huriye Çelikcan)

Image 22. E/ Age 8 years 1 month. (From the archive Huriye Çelikcan)

Image 23. A. T/ Age 9 years 1 month.(From the archive Huriye Çelikcan)

Image 24. R/ Age 9. (From the archive Huriye Çelikcan)

Image 25. H/ Age 11 years 1 month. (From the archive Huriye Çelikcan)

Image 26. C. Ç/ Age 11. (From the archive Huriye Çelikcan)

CHAPTER 2

DISCIPLINE-BASED ART EDUCATION

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1. Introduction

During the centuries-long development of art, it has been described with many definitions. Since art was defined as a search for aesthetic beauty, beauty was considered as the objective of art. According to some, art should reflect reality (Boydaş, 2007). Today, the definition of art, in its simplest and most frequently used form, was proposed by the famous art historian Herbert Read (1960): “an effort to create pleasing forms” (p.21). Although this definition is accurate in essence, it is incomplete.

There are traces of the artist’s originality and personality in the creation of a work of art. An artist transforms the effects of the physical and emotional factors of the external world by factoring in own imagination and skills into a form starting from birth (Şişman, 2011). This demonstrates that art is not a transient phenomenon but one that entails a process.

Art education emerged in late 19th century as a reaction to cultural erosion in Europe. Interest in arts education was higher especially in industrialized countries. Since art is an original and creative phenomenon, the significance of art education in general education is obvious (Gençaydın, 1990).

The terms “art” and “education” in the concept of art education are intertwined and intricate concepts. Whether art itself should be instructed in art education or the priority should be on education has been a universal problem. The concept of art education describes the education that includes all fields and forms of fine arts (San, 1983). Artut (2009, p. 122) described the functions of art education as the acquisition of a creative, querying, questioning, and self-confident personality and an intellectual approach to arts.

Artistic learning is achieved through meaningful relationships established with pre-planned activities conducted by the teacher and the learner. The development of the behavior aimed to be acquired by the students in artistic activities is associated with the development of curriculum content for the development level of the students. Such curricula would allow the individual to acquire a wider perspective in life through the development of individual creativity, intellectual capacity and aesthetic ideas.

Until the 1960s, most educators argued that practice could be improved with the development of visual perception and emotional analysis. Later on, discipline-oriented curricula were introduced in art education. This approach included a comprehensive program that aimed to instruct four disciplines in art education (art history, art criticism, aesthetics and practice) (Artut, 2009).

2. Discipline-Based Art Education

Different artistic approaches have been adopted in time to emphasize the creativity of the individual. The implementation and development of these approaches based on the outcomes hid clues about an effective arts education. In 1982, the J. Paul Getty Foundation founded the Getty Fine Arts Education Center in the United States to improve the quality of art education at schools (Eisner, 1998). The art center adopted an approach to visual arts that envisaged the harmony of the disciplines such as art criticism, art history, aesthetics and practice. The new theory was christened by W. Dwaine Greer as the Discipline-Based Art Education (DBAE) (Özsoy, 2007, p. 188).

Eisner (1989) argued that the instruction of these four disciplines as separate entities was wrong. According to Eisner, these four topics could be discussed separately as parts of an holistic approach or under the topics of artistic practice, art criticism, art history and aesthetics. Art criticism improves the visual perception skills of the individual, and art history allows the individual to comprehend the time and place where previous art forms were created. Aesthetics entails the theoretical foundations established to reflect the attributes of individual observations. Discipline-based art education aims to improve individual skills in the above-mentioned four areas (Şahan & Özsoy, 2009).

According to Johnson (1999), discipline-based art education leads to creativity, thinking, improvisation and criticism of the works of art. He emphasized that in the course contents that Johnson applied in this educational approach, student participation, interest in the course, attendance and achievements increased.

Discipline-based education is considered as an effective instruction strategy that includes knowledge in various disciplines and makes sense. In interdisciplinary instruction, the knowledge and skills that could shed a light on a concept from several perspectives are integrated. Although the main aim is to scrutinize the topic of the course, it is also important to learn the knowledge and skills in other fields that are associated with the concept (Yıldırım, 1996).

Traditional practices in educational institutions were developed to approach academic disciplines separately and to measure only the current knowledge. Such an approach restricts learning due to the confined nature of various disciplines (Beane, 1993).

Studying a single or several disciplines in arts education is not sufficient to understand a complex painting. Thus, Jerome Brunner's idea that emphasized the necessity of discipline-based art became the model for the art education based on integration of the disciplines. Brunner supported the idea of studying the structure of a field rather than only studying the facts. This could be learned by analyzing the practitioners in that field. Because practitioners are the source of knowledge in that field. The educational process is associated with the assimilation of the knowledge, skills and traditions of a master artist who defined the field accurately. This type of inquiry reflects the discipline's "structure", its basic organization, principles, problems, characteristic tools, and technical vocabulary. These ideas were introduced to art education mainly under the influence of Manuel Barkan of Ohio State University. Barkan presented these ideas at the Penn State Seminar on Art Education in 1965, where several new ideas and reforms were discussed. One of the important pioneers of discipline-based art education was the project on primary education arts curriculum, sponsored by the Kettering Foundation and developed at Stanford University after 1967 by Elliot Eisner. The Kettering project demonstrated that even young children could comprehend the concepts in various fields of art, and benefit from artistic practices, criticism, and historical curriculum activities in their artwork (Dobbs, 2004).

Discipline-based art education was a reform movement when it emerged in the arts education scene in the early 1980s. It proposed the reversal of the old creativity/self-expression paradigm with a new discipline-based approach that would be academically respected and teach children arts with a stimulating, efficient method. In a sense, the discipline-based arts education movement resembled the "back to the basics" movement (Greer, 1984).

This movement suggested curricula that instilled basic skills the students would require to find their way around the society, including their verbal and mathematical skills.

Discipline-based art education is a comprehensive approach to the instruction and learning in the field of visual arts. It provides a systematic and sequential learning experience in four different domains of art to help students understand art, artists, artistic processes, and the role of art in cultures and societies. The four main characteristics of discipline-based art education include the following:

1. The creation of works of art by skillful application of ideas and experiences using tools and techniques in various environments (artistic practice).
2. The description, interpretation, analysis and theorization of the artworks to ensure clear understanding and evaluation of artworks and artistic function by the society (art criticism).
3. The focus on the time, tradition, function and style of art objects and investigation of their historical, social and cultural contexts (art history).
4. The analysis of art by questioning the nature, meaning and value of art, the advantages and disadvantages of art, and development criteria to judge and analyze an artwork (aesthetics) (Dobbs, 2004, pp.701-702).

2.1. Artistic Practice

Artistic practice phase includes observations, ideas, forms and experiences created by thinking skills. In this stage, forms, ideas and emotions turn into expressions for artistic success. Practice is the source of all these processes. In the practice phase, the student asks the questions “How is the problem solved?” and “How is it applied and how can I design it better?” to reach a solution (Dobbs, 2003; Özsoy & Alakuş, 2009).

Artistic practice could be conducted in the form of two-dimensional or three-dimensional applications, using different techniques and materials based on the course topic and objectives. Various instruction methods and techniques should be adopted in art education in a certain order, where the student could actively participate and contribute to the development of creative thinking and problem-solving skills based on the psychological and physical development levels of the age groups (Katıranç, 2020).

2.2. Art Criticism

The word art criticism has been used in France since the 14th century and it entails the research, analysis, interpretation and evaluation of artworks theoreticality (Akkaya, 2014).

Art criticism attempts to interpret the essence and scope of a particular work of art, and to generalize the information about the work. The determination of the value, quality, organization and meanings of a work of art and the development of an aesthetic perspective are important objectives in art criticism (Artut, 2009).

Art criticism is a discipline that attempts to define the value, meaning and main objective of the works of art. It is employed to examine the details, to determine the meaning and the reasons for the value of the artwork, and to compare the works of art. Art criticism asks questions such as “What is this about? What are the details? What does it mean? Why is it good? Why is it valuable?” (Özsoy, 2007, p. 194).

The art education system developed certain criteria for the criticism of artwork. Feldman described these art criticism criteria as “Definition, Analysis, Interpretation and Judgment” (Feldman, 1987). Art criticism should include tasks such as definition, analysis, interpretation and judgment. These play a key role in the comprehension and perception of art better by the society (Dobbs, 2003).

2.2.1. Definition / Description

Definition is the foundation of interpretation. An inaccurate and inadequate definition would lead to a failed criticism. For an accurate description of the artwork, it is necessary to systematically analyze the internal approach of the artist, the historical, cultural and environmental conditions, and the knowledge acquired from internal and external resources about the physical appearance of the work (Artut, 2009).

In this stage, the visual elements recognized at first sight, including the objects that were conceived as insignificant, and attributes such as the subject of the painting are examined (Boydaş, 2007).

The main purpose in the description phase is to provide detailed information about the art form associated with the artwork, the composition and the subject of the work (Kırıçoğlu & Stokrocki, 1997; Özsoy & Alakuş, 2009).

2.2.2. Analysis

In the analysis stage, the visual data obtained to describe the artwork in the previous stage are analyzed within the framework of artistic principles (Boydaş & Kedici, 2000).

To create a work of art, the subject of design is analyzed to determine the method, technique, tools and time to create the artwork. The associations of the

design with similar artwork are researched, classified and organized. After all these analyzes, the artistic language of the work is determined by integrating the collected data (Artut, 2009).

To analyze the composition, artistic organization elements and principles of an artwork, the following questions should be answered: “How was the artwork created? What was emphasized in the painting? How were the brush strokes, colors and light and shadow elements used? How are the forms organized? What are the balancing elements?” (Kırıışođlu & Stokrocki, 1997; Özsoy & Alakuş, 2009).

2.2.3. Interpretation

This is the stage where the findings obtained in the definition and analysis stages are interpreted. In this stage of the criticism, the information is organized and the ideas that reflected by the artist are interpreted. In this stage, the decisions about the main idea and meaning of the artwork are not presented (Feldman, 1987).

Each work affects the audience in a different way; light and color are prominent in certain artwork, while brush strokes or the subject matter are effective in others. Regardless, the interpretation of each painting should be conducted within a system (Kırıışođlu & Storocki, 1997).

Interpretation of an artwork entails the expression of a personal opinion about the internal and external properties of the work. Interpretation is a subjective relationship between an individual and a work of art. Comments about the same artwork may vary between the individuals. There are no definite judgments that could be considered an accurate interpretation, but there may be comments that could be considered as accurate and logical when compared to other interpretations. Factors such as perspectives on the artwork, aesthetical approaches, education and cultural level could be effective on individual comments (Artut, 2009).

2.2.4. Judgment

Judgment is the last stage of art criticism and the data collected in the previous stages are analyzed to reach a judgment in this stage. In this stage, answers to objective, planned, realistic, open and clear questions are determined. For example, the reviewer asks and theorize questions such as “what is art, what is beauty, what is aesthetics, what is the social value of this work.” Thus, ideas are analyzed in the judgment stage (Artut, 2009).

In this stage, it is expected that the reviewer would discuss and define the concepts of taste and value and attribute and justify the work of art with one or more theories of art. In a sense, the basic criteria for the material and spiritual value of the artwork would be determined, and the significance of the work within the period and style. Taste may differ from person to another, but the value is determined by art critics based on certain criteria and justifications (Kırıçoğlu & Stokrocki, 1997; Özsoy & Alakuş, 2009). Barrett (2003) emphasized that a reviewer should first determine the review criteria and then analyze the artwork based on these criteria.

2.3. Art History

Art history is a scientific discipline that includes the general analysis of all artworks and artists that have existed since the beginning of art and investigates the historical evolution of art (Artut, 2009, p.59).

Art history allows the individual to learn about the domestic culture and global cultural heritage, investigate and understand art. Artworks are associated with various periods as well as their own. Thus, it is necessary to analyze the role and significance of an artwork in art history. Students could learn about the national features as well as cultural principles of their country in art history (Özsoy, 2007).

According to Özsoy and Alakuş (2009), art historians employ two types of inquiry methods: subjective and comprehensive. In subjective inquiry, the subject of the artwork, its composition and technical properties are questioned with a focus on the clues included in the artwork. In comprehensive inquiry, the focus is on the environment and conditions in which the artwork was created, and religious, cultural, and intellectual attributes that could affect the artist.

2.4. Aesthetics

The German philosopher Alexander G. Baumgarten argued that the concept of aesthetics is an independent science (Artut 2009). The aim of aesthetics instruction is to allow the individual to discuss art and analyze the works of art based on various aesthetic theories.

Experimental studies conducted based on the theoretical and technical knowledge instructed in art education play a key role in understanding art. Theoretical and practical instruction are the two significant complementary

elements in art education. Theoretical knowledge leads to practice based on theoretical goals and objectives. Theory leads to the acquisition of a systematic approach to phenomena through the determination of the correlations between the variables that aim to explain and question the phenomena. Art theory entails an order, where artistic ideas and design, the birth, consumption, perception and exhibition of all artistic work are interconnected. Art education theory investigates the theoretical and methodological foundations of creative art education (Artut, 2009).

There are four artistic theories that attempt to discuss artistic problems: Reflectionist Theory, Expressionist Theory, Formalist Theory and Functionalist Theory.

2.4.1. Reflectionist Theory

This theory entails the reflection of the objects in nature with a realistic approach (Artut, 2009, p. 107). Reflective theory is also called mimesis theory. The theory perceives art as a reflection of nature and society. There are three different theories that explain the reflection process. The first considers art as a direct reflection of the visible. This view was proposed by Plato. According to Plato, the artist does not add anything personal to the artwork but only imitates nature. The second theory considers art as a reflection of the common and the essence. Unlike Plato, Aristotle considered art superior to science. According to another theory, art is the reflection of the ideal reality. According to the Renaissance theory, ugly elements in nature should not be the subject of art. Art should be based on the reflection of the idealized nature. Reflective art theory was the prominent approach in the “realism” movement that emerged in the 1830s. According to this movement, artworks should convey daily realities (Balci, 2016).

2.4.2. Expressionist Theory

Expressionist theory is the opposite of reflectionist theory. The artist effectively conveys the artist’s inner world, emotions in new colors and forms, using emotional symbols according to this theory (Artut, 2009).

Expressionist theory focuses on the artist when defining art. This approach argues that art is the expression of emotions. According to Croce and Colingwood, art is the manifestation of the pure emotions of the artist and without any internal or external influence. The artworks created by the artist based on consumer demands are not real art (Balci, 2016).

2.4.3. Formalist Theory

This theory emphasizes the formal attributes in an artwork and is concerned about the organization of aesthetic elements. Formalist theory emphasizes aesthetic elements in the structural organization of artwork. According to this theory, the subject is of no importance, but the form is significant. For example, the construct created by variables such as texture, color, line and form should be considered (Balci, 2016; Artut, 2009).

2.4.4. Functionalist Theory

Functionality theory prioritizes the art consumer in its approach to art. The functions of art in educational or sociological phenomena are emphasized. Furthermore, the effect of “craftsmanship” is felt in these artwork (Balci, 2016; Artut, 2009).

3. Conclusion

Art education should be built on art history, art criticism, aesthetics and practice. The artistic dimension of the works that were not created based on artistic culture and aesthetic knowledge is inadequate. A significant knowledge and experience are the foundations of artistic activities. Thus, a comprehensive and meaningful art education based on “art history, art criticism, aesthetics, and practice” could fulfill this goal with a holistic approach (Artut, 2009, p. 292).

The task of art education is to improve these disciplines and integrate them with others. Although the development of knowledge in a single field could be considered to belong to that particular field, in fact, all fields are interconnected. Fogue (1996) defined interdisciplinarity as a intersecting network of knowledge and emphasized that the aim of sciences and academia should be to improve and develop qualitative and quantitative knowledge as much as possible.

As a comprehensive approach, discipline-based art education emphasizes the multidimensional nature of artworks and the need for a comprehensive approach for adequate comprehension of art. Discipline-based art education considers art as an indispensable component of a quality general education. Thus, art education would fulfill the basic scholar objectives such as development of the mind, problem solving skills and the transfer of cultural heritage, among others. Art contributes to the general educational objectives. Discipline-based art education is a holistic partnership among the areas of interest to maximize learning. Thus, each discipline included in the discipline-based arts education

program is an interdisciplinary method that contributes to the development of awareness about art in the student (Dobbs, 2004).

Successful learning can only be achieved based on successful teaching. Discipline-based art education plays a key role in current education systems by ensuring the acquisition of versatile thinking skills, and the development of creative, critical and analytical thinking skills of the students. In this approach, the limited individual perspectives on a particular topic through the acquisitions in several disciplines.

Currently, due to the interaction between art disciplines, arts developed associations with other arts. Each artistic branch has improved through the influence of others due to interdisciplinary interactions. The sustainability of advances in knowledge and accessibility require continuous self-improvement (Yılmaz, 2010).

In educational processes in educational institutions, instruction techniques that reveal the different student attributes, develop creative thinking and innovation skills, and allow the employment of various disciplines should be developed.

For this purpose, a curriculum that combines various art disciplines such as art criticism, art history, practice and aesthetics and an intercultural approach was developed based on national standards and called the “Multidisciplinary Visual Arts Education” (Özsoy, 2007). It is necessary to popularize this method in Turkey and improve it based on contemporary developments in education and other disciplines associated with art, train teachers with this approach, and provide qualified art education to the students.

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CHAPTER 3

ART CRITICISM IN VISUAL ARTS EDUCATION

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1. Introduction

Visual arts education is necessary for individuals in all age groups. Art education has several functions such as the development creativity, critical thinking, self-expression skills, cultural awareness, and empathy levels. In the past, visual arts education was perceived only as a course for the development of manual skills, but the course adopted a wide context that included art history, aesthetics, and art criticism. Art education process is summarized in the next section.

Art education was introduced in western schools in the 19th century. The industrial revolution elevated design requirements, and art courses were introduced in schools to meet this requirement. Art education served the industry until the end of the 19th century and aimed the design of inexpensive and easy drawings for mass production, started to include the aim of the improvement of the aesthetic judgment of individuals with museum visits, environmental and nature studies at the end of the century. Furthermore, with the association of drawing courses and other fields of education, the support of the intellectual development of the child became prominent. In the 20th century, as teacher-oriented educational approach was replaced by student-oriented approach, creative skills became important in every field, and the significance of art education increased due to research on its relationship with psychology. In the 20th century, children's painting became a separate field of research, and Franz Cižek drew attention to the expressive power of children's paintings with "Child-Oriented Approach in Art", the focus shifted on the children's paintings'

spontaneity and sincerity and the significance of the impact of painting on child development. Lowenfeld (1947) discussed the linear child development stages in the book titled “Creative and Mental Growth,” and considered art education as a tool that leads to the creative and rational development of the child (Kırıçoğlu, 2005). In the second half of the 20th century, Jerome Bruner, Elliot Eisner and others developed the “Discipline-Based Art Education” approach. The Discipline-Based Art Education, proposed in the 1960s and developed in the 1970s and 1980s, expanded the content of art education and art was considered a field of research in general education. In 1982, Getty Fine Arts Education Center adopted the “Discipline-Based Art Education” approach (Özsoy, 2003). The Discipline-Based Art Education, which was based on four principles of artistic practice, art history, art criticism and aesthetics, removed the conventional structure of art education, which only accepted talented students, and replaced it with a structure that allowed versatile student development based on contemporary requirements.

In Turkey, painting courses were initially included in military school curricula at the end of the 18th century and included in the general curricula only in late 19th century. After the proclamation of the republic, multidimensional developments were experienced in education, culture and arts, and several educational experts were invited from abroad and a more modern education system was introduced. In a report authored by J. Dewey (1926), one of the experts invited to Turkey, the significance and benefits of visual arts were emphasized and the steps that should be taken to popularize art education were recommended. After report, Gazi Education Institute was established and primary, middle and high school painting curricula were revised. In the 1932-1933 academic year, the “Department of Painting” was established to train secondary education art teachers (Kırıçoğlu, 2005). The art course curriculum has been revised several times since early 20th century. The adoption of the Discipline-Based Art Education was initiated in 1997. Within the framework of the National Education Development Project developed with the cooperation between the Ministry of National Education and Council of Higher Education (CHE), education faculties were restructured, the method was introduced and implemented through various publications (Yolcu, 2009). As of the 2006-2007 academic year, the name of the painting course was changed to “Visual Arts”. The review of the visual arts course curricula finalized in 2018 would demonstrate that the Discipline-Based Art Education was structured in line with the acquisitions of four disciplines. Furthermore, it should be mentioned that the historical development of both Western and Turkish art, from prehistoric to

the postmodern times, is included among the course content. Although it was a positive development that the students of art education were offered a rich content, art criticism was more important than before. Ability of the students, who are exposed to several visual stimuli due to the facilities provided by the digital age outside of the classroom, to recognize the good and valuable, to look at and interpret the works they are exposed to with a critical perspective, could only be possible with a quality art education at school. On the other hand, the significance of art education in school programs and limited class hours have been a problem in Turkey. In recent years, the reduction of the course hours and the inclusion of the visual arts course among elective course in several grades are among the non-negligible problems. These problems were considered to prevent the applicability of the curriculum.

This chapter aimed to provide applied examples of the method of art criticism, which is a significant part of art education. For an effective criticism, students should have some prior knowledge. Thus, before proceeding to the steps of criticism, brief information about art, artwork, artistic theories, and the definition and function of the review process is provided.

2. What is art?

Several definitions have been attributed to art throughout history. There was no word such as art in the period when humans painted on the cave walls, which were accepted as the first specimens of human art, or the ceremonial materials created by African indigenous peoples that are exhibited in modern museum collections were not produced for artistic purposes.

The etymological analysis of the word art would reveal that it derived from the Latin “*ars*” and Greek “*techne*”, which were used to reflect human crafts such as horse training, poetry, shoemaking, vase painting or administration. The words “*ars*” and “*tekhne*” mean to practice a craft based on practical rules. In ancient times, the philosophers considered the weaver, the fisherman, the archer, the architect, the sculptor, and the poet all artists (Bozkurt, 2004). In late Hellenistic and Roman periods, art was divided to liberal and vulgar arts. Vulgar arts were those produced with manual labor and/or for a wage, the liberal or free arts were intellectual arts suited for the noble and educated class. Music was considered a free art, while painting and sculpture were excluded. Furthermore, music produced for entertainment purposes and for a commission was not considered a free art. This classification, which changed based on the mentality of the Middle Ages and Renaissance, took its current

form in the 18th century. In the 19th century, crafts were produced for an income or to serve common pleasures, and art was created for aesthetic purposes and these two were completely separated (Shiner, 2001). Although we still admire the works of the Middle Ages, Renaissance or Baroque periods, which were mainly worked on commission and to satisfy the commissioners, arts and artists achieved independence in the 19th century with modernism and arts and crafts were clearly separated.

Although it has been suggested that art could not be defined clearly, it could be observed that beauty was one of the main concepts associated with art in the past. If we need to briefly address certain ideas on beauty; Plato was the first to question beauty with a philosophical approach and searched for the main source of beauty with the concept of “idea” (Özel, 2014). The idea of “beautiful” in ancient Greek also means “good”. Until the 18th century, “good”, which was the subject of ethics, and “beautiful”, which was the subject of aesthetics, were considered the same (Turgut, 1991). According to Plato, “good” is a requirement of a righteous and virtuous life. Plato denied the existence of matter and based his ideas on idealism by emphasizing the thought. Plato, who considered that the reality exists in an ideal non-material world, attributed the values of divine, rational, and good to the ideas. Beautiful is a concept that originates in ideas, combining the useful and the pleasant. Aristotle, a student of Plato, did not describe beauty, but described its properties in “*Poetika*”; the basic criteria that makes an object beautiful product of art were order, size, symmetry, and knowledge. Plato and Aristotle’s ideas guided Greek and Roman art. Plato’s ideas were differentiated during the Renaissance with the Neo-Platonist philosophy and became popular again. Unlike Plato, this philosophy argued that art was more beautiful than nature because it creates something that is not in nature. The idealist philosophy in Renaissance art derived from both the Neo-Platonist and Aristotelian philosophy (Özel, 2014). The idea that art was an expression of the ideal of beauty created by human beings took root during the Renaissance and almost turned into an official ideology of arts in the 19th century (Sözen & Tanyeli, 2001).

In the 18th century, Alexander G. Baumgarten first defined the aesthetics in artistic beauty in his work “*Aesthetica*”. Aesthetics attempts to answer the question “what is art” and became a scientific branch that tries to establish generally accepted principles in all arts. In the 18th century, during the Age of Enlightenment, the religion or god-oriented world view of the middle ages was replaced by a structure that allowed the development of a free social environment for knowledge of the mind. Immanuel Kant, an 18th century philosopher,

distinguished beauty from pleasant and beneficial, and argued that the aesthetic object should provide aesthetic pleasure with pure love without a benefit. Hegel, who significantly contributed to the 19th century aesthetics, argued that artistic beauty was superior to natural beauty since artistic beauty is born in the spirit (the essence of all existing things) (Özel, 2014). In the 20th century, the beauty was no longer the ideal in art. Thomas Munro defined art as “the skill to create an urge to create satisfying aesthetic experiences”. The expression of satisfying aesthetic experienced reflected that beauty was no longer an artistic requirement (Sözen and Tanyeli, 2001).

In the 19th century, in line with the ideal of “art for art”, artists argued that art should only serve itself and its sole purpose should be itself. In this process of artistic autonomy, Kant’s ideas that separated art from reason and ethics was a source for modern artists. This mindset replaced the idea that considered art a reflection instead of the creative power of the artist. Thus, the artists who aimed to relieve art of all content and convert it to its purest form emphasized form rather than content. This trend towards abstract painting led to rapid and successive avant-garde movements in line with the world wars, industrial advances, changing economy and lifestyles in the 20th century, and by late 20th century, the artistic acts were totally transformed. In the postmodern era, it became difficult to distinguish between arts and crafts, and the meaning and definition of art became quite ambiguous. Today, various art forms are exhibited in museums in addition to paintings and sculptures. Several images surround us both in daily life and on digital platforms. In the 21st century, it is not an easy task to distinguish what is kitsch, what is art and what is craft. Throughout history, individuals’ worldviews and ideas have changed and different philosophical approaches have emerged. Strong associations have always been established between philosophy and art. Thus, to read an artwork accurately in criticism, the conditions, philosophy, and artistic philosophy of the period should be known. This is possible with knowledge in art history and aesthetics.

3. What is an artwork?

The first condition for a work to be a work of art is that it is man-made. Our admiration for a landscape painting may be similar to our admiration for an actual landscape in nature. Nature is the source of the creative activity of an artist; however, nothing that exists in nature could be a work of art. A work of art could only be created by an artist. Bozkurt (2000) considered creativity as the most distinctive feature of a work of art. Creativity that combines originality and

style renders unique artworks. The quality is a product of the creative personality of the artist. According to Ersoy (2010), a work of art is a unique creation. It is the product of the labor, special efforts, and activities, and originates in the power of perception of the artist's natural and socio-cultural environment. The work of art nourished by these perceptions is based on both the reality and the power of imagination.

The concepts of originality, creativity and imagination are common in several definitions of artwork. But how much could the artwork that we visit the museums to observe reflected the creative ideas of the artist in that period? Erinç (2016) stated that there are several reasons for a work to be designated as art and categorized these reasons as “Artistic” and “Non-artistic”;

Artistic

1. The value of a work in art history.
2. The antique value of a work.
3. The value of a work based on modern and contemporary art theories.

A work that reflects at least one of the above-mentioned qualities is an artwork.

Non-Artistic

1. The attribution of a value to a work for financial reasons.
2. The attribution of a value to a work for political reasons.
3. The attribution of a value to a work for ideological (especially religious) reasons.
4. The attribution of a value to a work by the media (Erinç, 2016).

To implement the above-mentioned classification by Erinç, the historical period of the work should be understood. Since enlightenment, the definition of “artwork” included several claims. Based on the views of art schools, socio-political trends, ideologies or fashions, certain works were regarded as works of art, while others were rejected (Erinç, 2016). In the early 20th century, the prominent artistic approach aimed to produce aesthetically beautiful objects; however, when Marcel Duchamp's reversed urinal started to change all criteria for a work to be qualified as a work of art. With postmodernism, art started to resist all definitions (Barrett, 2014). Weitz claimed that “*art was a living concept, and it was not bound by a single condition or set of conditions*”

(cited by Barrett, 2014). A work of art is a social object, and affected by the economic conditions, government style, cultural values, religious beliefs of the time. Every work should be analyzed based on the conditions of the time. How were the schematic depictions of the Middle Age manuscripts turned into the naturalist approach in the Renaissance? After the French Revolution, why were the paintings and sculptures commissioned by the palace and church exhibited in museums? Or why are the works of Van Gogh, who could only sell a single painting during his lifetime, priceless today? Why are millions of dollars paid for the artworks in contemporary art museums, the artists of which did not even touch during the production process? It is difficult to give clear answers to these questions. To analyze and judge the artistic value of an artwork, it is necessary to know the theories of art. Art theories attempt to explain why a work can be considered a work of art.



Image 1: Praxiteles, “Hermes and child Dionysus”,
4th century BC. Olympia Archeological Museum, Greece.

3.1. Mimetic Theory

The first answer to the question “What is art?” is that art is a reflection, simile or imitation. Art as a reflection is a theory that lasted for centuries and is still alive

(Moran 2017). The first phase of the mimetic theory was initiated by Plato (5th century BC). Plato generally considered art as an imitation or representation in the “State”. According to Plato, who introduced the concept of mimesis to aesthetics, objects we see in nature or objects made by man are imitations of the ideal examples. Ideals are hard reality. The products of art are the imitations of imitation (Özel, 2014). Thus, works of art do not reflect reality, do not convey the truth, on the contrary, they distance themselves from the truth. The aim of humans should be the Idea, that is, the truth, while the artist directs people to the wrong path; therefore, Plato was against art (Moran, 2017). Aristotle introduced a new perspective to the “mimesis” approach and stated that artistic activities are not the imitations of visible objects, but the reflection of natural creative power on human soul. The reality in paintings which adopted this approach were an idealized, fake reality created by a desire to create perfection. In ancient times, these ideal painting were associated with a number of canons. For example, “Hermes and Child Dionysus” sculpture by Praxiteles presented in Image 1 and sculpted in the 4th century, was created based on the rules and scales determined by Polykleitos (Akkaya, 2014).

The ancient approach to beauty was rediscovered during the Renaissance in the 15th century after a long period of time, and the idea of reflecting the ideal reality became prominent in the 18th century with neo-classicism. According to Aristotle, art reflects what should be, not what is, and this idea continued to influence the art in Renaissance and consequent periods. During the Renaissance, Aristotle’s approach to the function of art was different. In the Renaissance and later in the neo-classical period, it was proposed that art should be didactic rather than distractive about passions (catharsis) with feelings of pain and fear (Turgut, 1991). Realism (Image 2), which appeared in France in the mid-19th century, followed the romanticism, and ended certain stereotypes about classical painting, and reflected an approach that aimed to display the poor and daily life without attempting to glorify the workers and peasants or emotions. The plain and neutral realist approach turned into stereotyped forms of expression that served certain ideologies with the Socialist Realism introduced in the 20th century (Erzen, 1997). According to this view based on Marxist aesthetics, the reality reflected by art should be human and social (Özel, 2014). This does not mean an imitation of nature or an ideal imitation, but a reflection of social reality. This realist approach aimed to educate working classes within the process of revolution.



Image 2. Jean François Millet, “Des glaneuses”, 1857,
Museum of Orsay, France.

3.2. *Expressionist Theory*

Expressionist theory centers on the artist in the effort to explain art. In mimetic theory, the most important characteristic of the artwork is its function as a mirror of the external world, life, people, society, without emphasizing the emotions and experiences of the artist. The role of the inner world of an artist was first observed in romanticism. This expressionist approach that started with romanticism dates back to the individualism movements in the Renaissance period. The attitude of the romantics was interpreted as an opposition to the prescriptivism, limitations of neo-classicism and rational scholasticism, and as a revolt against bourgeois capitalism. The work was no longer a mirror, but a window opening to the artist’s inner world and soul. The artist reflected the nature by redesigning it based on unique and personal emotions. The artwork was a reflection of common patriotic or religious emotions in neo-classicism and before neo-classicism, while the most important feature of the emotions here was the individual emotions of the artist. The work acquired value based on faculties and the traces of the soul and emotions of the artist (Moran, 2017).

Romanticism emerged in the 18th century and lasted throughout the 19th century, where landscape paintings that served as a backdrop for figures for centuries was prominent. Especially William Turner in England and Caspar David Friedrich in Germany painted landscapes that were very different from

the paintings of the past due to their intellectual and emotions influence on the audience. Concepts such as sensuality, irrationality, excitement, instinct, subjectivism, imagination, intuition, freedom of expression, subconscious, individualism, creative genius, loneliness, love of nature, nationalism, patriotism were frequently scrutinized in romantic works (İnankur, 1997). It is possible to observe the connections between the German philosopher Immanuel Kant's aesthetic approach and romanticism. Kant, in addition to beauty, an aesthetic value, also addressed the concept of "sublime" as an aesthetic value. Although these two concepts were similar in the aesthetic individual pleasures they induced, there were still differences between them. The natural beauty is limited by form, the sublime is unlimited. Sublime goes beyond the object and is the product of the super-sensory mind. While there is harmony in beauty, the sublime could be boundless, surprising, frightening. Kant categorized the sublime as mathematical and dynamic sublime. The immense sea, sky, magnificent mountains represented the mathematical sublime, while the stormy sea, a violent hurricane, and lightning represented the dynamic sublime (Özel, 2014). The symbolization of the forces of nature in Turner's stormy sea (Image 3) or in Friedrich's landscapes (Image 4) express the powerlessness of humans in the face these forces were the examples of Kant's concept of sublime. In the 20th century, expressionist, abstract expressionist, and new expressionist artists provided a unique approach with the employment of formal attitudes and color, completely broke off from the naturalist worldview and made an effort to emphasize the expression more than the subject (Antmen, 2013). It is possible to observe Van Gogh's psychology in his portraits, who was depressed and took his life, or the artist's mood in the delusional paintings of Edward Munch (Image 5). In contemporary, it could be observed that the artworks reflect the individual emotions in various forms such as videos, performances, and installations. For example, Marina Abramovic's performance titled "Balkan Baroque" could be considered as an expression of the effects of the civil war that broke out in the country after the Socialist Federal Republic of Yugoslavia on her family, herself and Yugoslavia in 1991, and the emotions of the artist about the process. In her performance at the Venice Biennale in 1997, the artist sat on a pile of bones for six hours a day for five days. Singing sad songs, the artist stripped the flesh on animal bones. There was a copper container filled with water next to the artist, and the container was surrounded by bone piles. A video screen behind these objects displayed the images of the artist, her mother and father (Whitham & Pooke, 2010). Stripping the flesh and singing sad songs were laments for her experiences, transforming pain into action, while the video footage was an

expression of her respect for her parents' fight for against communist ideals in Yugoslavia. Similarly, several Christian Boltanski installations were about the Jewish genocide by the Nazis. It could be observed that the genocide that occurred when he was a child played a decisive role in his art and his feelings determined the production of the work based on the genocide he personally witnessed.



Image 3. William Turner, “The Slave Ship”
1840, Boston Art Museum, USA.



Image 4. Caspar David Friedrich, “Das Eismeer”
1823-24, Kunsthalle Hamburg, Germany.

Expressionism could be discussed in two categories.

3.2.1. *Expressionism as creation*

According to this view, which was based on the ideas of art philosophers such as B. Croce and R. G. Collingwood and J. Ducasse, the artist's relationship with emotion leads to an awareness about self-emotions. The artist does not consider others when expressing own feelings. Since ancient Greece, the function of art was about the reader, the listener, and the audience. Art educated or entertained or educated while entertaining. This bond between the artist and the audience gradually disintegrated in romanticism. The individual who aims to evoke certain emotions in the audience was considered a craftsman, not an artist (Moran 2017). In this theory, emotion reflects true meaning in the work of art. It does not aim to evoke the emotion that already exists in the audience, but to create it from nothing. Munch's painting "The Scream" (Image 5) is an example in the sense that the artist created a unique and new emotion for him (Özel, 2016).

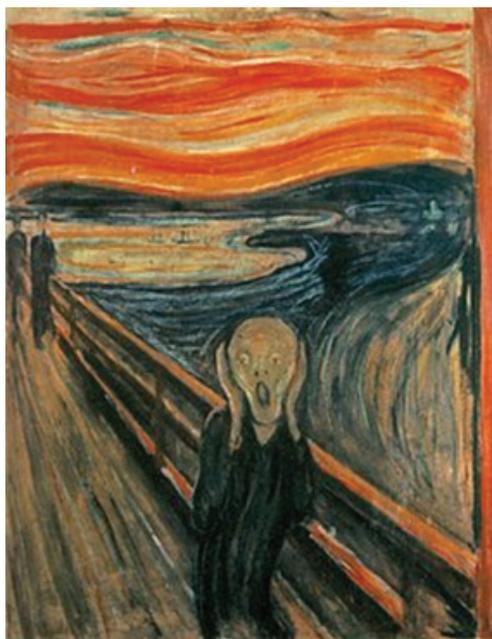


Image 5. Edward Munch, "Skrik", 1893, Oslo National Gallery, Norway.

3.2.2. *Expressionism as transfer*

This approach was also based on the principle that art is a product of emotions. But the expression of emotions is not sufficient for the artist. Art happens when

these emotions are communicated to the reader/audience and the excitement of same excitement and experiences in them. According to Tolstoy, “*The act of art is the transfer of an emotion that was once felt with movement, drawings, colors, sounds, or words to allow others to feel the exact emotion after reanimating it in one’s mind.*” The better a work of art conveys an emotion, the more it will affect the masses and it will lead to a beneficial emotion, improving the value of that particular artwork. In this approach, the artwork should reflect the emotions of the artist and purify the latter of these emotions, while at the same time making the audience feel the same emotion and purify them from their emotions. Thus, it allows the individuals to understand one another. The diversity of an individual life and emotions is limited. But art allows the individuals to share these emotions and life experiences, diversifying the global experience. According to this approach, the benefit of art for the society is to make people understand each other better (Moran, 2017).

3.3. Formalist Theory

Formalism explains art based on the work and scrutinizes the plastic value of the artwork rather than its content. It takes into account the organization and construction of the elements in the artwork such as lines, shapes, and colors. Formalism advocates the analysis of an artwork independent of ethical or social concerns. There is a strong link between formalism and modernism, identified with the doctrine “art is for art” that was introduced in the 19th century (Barrett, 2015). British critic Roger Fry, who christened “post-impressionism”, argued that beauty could not only be the result of the reflection of images, and played a key role in the transition to abstract painting (Akkaya, 2014). Modernist artists such as Wassily Kandisky, Piet Mondrian, Kazimir Malevich, who developed abstract art forms, were among the leading artists who contributed to the development of formalism. Formalist theory began to be discussed in the 1930s by Clive Bell and popularized in the 1950s and 60s, especially due to the arguments of Clement Greenberg, who supported new genres such as minimalism and abstract expressionism. In 1949, Greenberg referred to Jackson Pollock as the greatest painter alive in the United States. For formalists, the material should be used in its purest form, and it should not reflect something it is not. Currently, certain artists advocate a strict form of formalism, while others avoid artworks that are completely isolated from social issues, contrary to the rigidity that aimed to purify the work from all content. In other words, works that conform to formalism in design and material may also aim to give certain messages (Barrett, 2015).

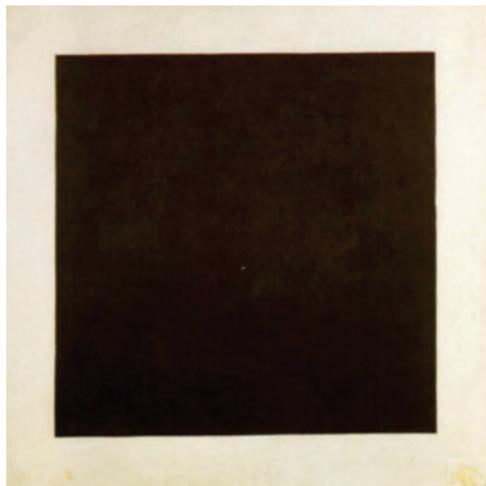


Image 6. Kazimir Malevich, “Black Square”, 1913,
Moscow State Tretyakov Gallery, Russia.

Movements such as cubism, abstract expressionism, de Stijl (neoplastic movement) (Image 7), suprematism (Image 6), and minimalism were the main movements that were primarily concerned with art forms. The works of artists influenced by these movements are very valuable based on this theory, but this does not mean that non-modernist works had no formal value. These works could also be considered formal, but only the formal structure should be taken into account during judgment.

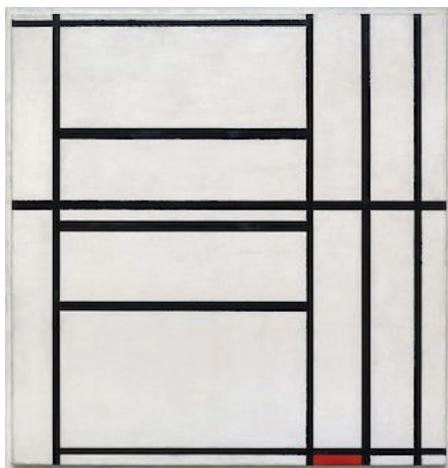


Image 7. Piet Mondrian, “Composition No. 1 with Grey and Red”,
1938-39, Peggy Guggenheim Collection, Venice, Italy.

3.4. *Instrumentalism*

Instrumentalist theory considers art as a tool to convey moral, religious, political, or economic objectives. Here, the purpose of art is more important than the art itself. The value of the artwork is not determined by the skill of the artist in using the material, tackling formal problems, or by expressionist criteria. This approach determines the success of the artwork based on its ability to convey a view or a message. The approach to artwork is similar to the music in a movie. Music should support dramatic action, underline its meaning and highlight exciting moments, but never draw attention to the music itself. According to this theory, this should be the relationship between the art and social, political or ethical objectives. The approach to art is also similar to advertising: the words in the message are visualized as a whole. The message could be humorous or beautiful, but it should not be witty or great enough to make the audience to forget the product (Feldman, 1992). According to Barrett, art should be concerned with values greater than aesthetics and broader than art. Whether the artwork is realist, expressionist, or instrumentalist, the following questions should be asked: “What purpose does it serve?” and “What is it against?” The discussions on the instrumental value of art dates back to Ancient Greece. Plato argued that art affects human behavior, so art that leads to good behavior should be produced with the interest of the public in mind. Similarly, the Russian novelist Leo Tolstoy stated that ethical and religious ideals determine the aesthetic value of an artwork. According to Marxists, the true value of a work of art is based on its social functions. Even Clement Greenberg, a devoted formalist, stated that art should raise the awareness of the audience to exceed daily anxieties by freeing humanity from the desire of consumption, “bad taste” and tastelessness (Barrett, 2014).

Postmodern artists were interested in political and cultural criticism and criticized everything that claimed to solve human problems such as religion, male domination, white supremacy, Freudianism, Marxism, communism, and capitalism (Pooke & Whitham, 2011). Postmodern artists opposed the rigid formalism of modernists, experienced various methods and materials to convey their messages effectively and ignored aesthetic concerns. For example, Banksy, who paints murals anonymously in several countries, especially in the UK, became the focus of interest since her or his true identity is unknown, and conveyed anti-war messages, defended human rights, animal rights and criticized the consumption madness. These murals first arose the interest of the audience with their messages.

So far, the historical ideas on art were summarized based on artistic theories. It is necessary to write several pages to include the ideas of all philosophers in the history of art, which is as old as the history of humanity. However, it was aimed to provide a general idea about the objectives of art since the ancient times, with the pedagogical criticism method. Next, it would be beneficial to discuss art review, types of review and the characteristics of the critic.

4. What is Art Criticism?

Criticism means to analyze or distinguish something based on strength and weaknesses. All activities conducted to introduce, explain, classify and analyze a work of art are called criticism (Ersoy, 2005). Criticism could also be described as a review or introduction to determine the value of that artwork, which is produced to reveal the truth through an artwork (Erinç, 2016). Art criticism is always based on a work, and defined as writing upon writing, discourse upon discourse. Criticism is an advanced language (Yücel, cited by Ersoy, 2010). Art criticism also reflects the social maturity of the artist in line with the information extracted from the artwork, interpreting the essence and scope, explaining the significance of the work for the society, and based on its functions (Artut, 2009).

Several methods are employed in art criticism. For example, the German art historian Heinrich Wölfflin (2015) discussed a certain period of art history and analyzed the works only based on their formal structure in his book titled “Principles of Art History”. According to Wölfflin, there were stages in the history of art where every development reached a classical competence or became baroque. Erwin Panofsky (2014), on the other hand, emphasized that an artwork could not be analyzed as a product of the culture but based on its meaning and content. In fact, analysis of an artwork only based on content or formally would not be sufficient to explain the work. Form and content should be considered as elements that complement each other. In this process, to judge the artwork accurately, it is necessary to analyze the historical, sociological and psychological factors, the organization of the elements and principles in the plastic structure should be determined, and the aesthetic value of the artwork should be revealed. Criticism could be conducted with several methods and the review criteria are different based on each artistic theory. Criticism types could be discussed in four groups: journalistic criticism, pedagogical criticism, scholarly criticism and popular criticism.

5. The Types of Criticism

5.1. Journalistic Criticism

Journalistic criticism is primarily a news article. These articles published in newspapers and magazines inform the reader about the current events in the art world. It is very rare that these articles, which usually include brief and concise information, are long enough to include a systematic analysis of an artwork. These articles that aim to describe artworks that readers could not see to satisfy the curiosity, serve a good purpose by igniting critical discussions, and help create an atmosphere of conflict and competition (Feldman, 1992). Currently, these articles are also observed on social media platforms and on gallery websites.

5.2. Pedagogical Criticism

The aim of pedagogical criticism is to improve the artistic and aesthetic maturity of the students. Pedagogical criticism allows the students to make judgements on their own (Feldman, 1992). Edmund Feldman was the first art educator who developed a method to discuss a work of art (Yolcu, 2009). In this method that included the description, analysis, interpretation and judgment steps, students were asked questions about the artwork at each step to discuss about the artwork.

5.3. Scholarly Criticism

Scholarly criticism is a field that requires lengthy studies, expertise, and a specific critical approach. It leads to an objective evaluation, interpretation and analysis (Feldman, 1992). There are several scholarly art criticism methods, some of which investigate the relations between the artwork and the settings (society, reality, humans), others investigate the relations between the artwork and the artist, certain others could investigate the relations between the audience members, while some could only analyze the work based on formal properties (Moran, 2017). The methods are associated with artistic theories. Each requires serious research and data collection. Knowledge on the social, sociological, cultural and economic context, the psychological traits of the artist, life history, contemporary artists and the artistic approach could be among the information that the critic should acquire based on the method employed in academic review.

5.4. Popular Criticism

Popular criticism is conducted by the public. Despite their artistic knowledge, average citizens could express their judgment about art in various mediums.

This type of criticism plays a key role in arts. These views, which were mostly expressed verbally in the past, have been expressed in writing, especially with the development of virtual media. Views on a movie, a concert, an exhibition could reach millions of individuals on the internet. It was observed that the significance of popular criticism has increased even further with the increase in the number of individuals who speak foreign languages and use the internet, especially after globalization. So much so that before watching a movie, before buying a book, before visiting an exhibition, several people feel the need to learn about other views by reading the comments on websites. Such comments could trigger several mass trends.

6. Who is the critic?

The critic is above all a viewer of the artwork. But unlike other audience members, the critic determines the aesthetic value of a work of art. The critic mediates the connection between the artist and the audience. One of the most important characteristics of critic is free thinking skill and ability to determine the original quality of the work. The critic has the ability to see and identify the elements that ordinary eyes do not pay attention to in an artwork. The critic could read the work formally and with an iconographical approach and place it in the historical context. The critic should have years of observation and research experience and knowledge. In addition to a deep knowledge on art history, the critic should consider historical, economic, sociological, psychological factors that affect the creation process. The critic analyzes, interprets, explains, and judges the correlations between these factors and the artwork based on several variables (Ersoy, 2005).

Criticism is also a literary genre. Especially in the birth of modernism and in the acquisition of artistic autonomy, significant connections were established between plastic arts and literature. Authors supported the struggle against the academy that was initiated with romanticism, in a period when the literati were in close relations with painters, sculptors and musicians. In their writings, the authors discussed the exclusion of the painters from the academy and their practical discoveries. Especially Baudelaire, Gautier and Zola were among these authors. The critics contributed significantly to the process of saving the artists from official social functions, fulfilling a commission or request, or serving a purpose (Bourdieu, 2006). While the artist combines scattered pieces with an original approach and presents it as a whole, the critic reveals the connections between these pieces by identifying the parts, following the opposite direction. Criticism is a deductive approach from the whole to the piece. The critic builds

a bridge between the reader or the audience and works of art. Suut Kemal Yetkin considered the critic as the creative friend of the artist. It is the critic who reveals the meaning of an artwork. The task of the critic is to enlighten the society and to create a level of appreciation among the audience (Ersoy, 2005).

A pedagogical criticism could not be professional. However, it was suggested that student knowledge on scholarly art criticism and the tasks of the critic would have a positive effect on their attitudes towards artwork as an audience member and raise their awareness.

7. Art Criticism and Stages in Visual Arts Course

The art method that includes description, analysis, interpretation and judgment stages allows systematic investigation of artworks produced in almost every period, movement and style. By asking certain questions at each stage, the student could examine the work in formal, semantic and aesthetic terms, and make certain judgments by discussing it with peers. Although the questions asked at each step preserve their general structure, they may differ based on the special features of the subject of analysis, or they could be very simple or complex based on the student age. The adequacy of the selected work for student review for the age group is also important. For example, in a study that would be conducted with primary school students, instead of selecting an artwork with a significant political message or an abstract artwork, an artwork about which students could answer the questions and that could provide concrete evidence should be selected.

7.1. Description

Description is the most important element in criticism. Certain reviews may not include a clear interpretation of the work or make a value judgment but include only descriptive content. Description is the basic element in criticism since a flawed description renders an accurate interpretation and judgment impossible. Description requires a serious data collection process. In this stage, while describing the material, subject and formal structure of an artwork, the descriptive statements about the individual emotions could be included (Barrett, 2014). In the description stage, the material properties of the work such as the form, material, dimensions, as well as the main composition elements such as the objects and figures are determined. The artwork should be examined in detail, and every detail that could have a meaning should be revealed. Students may need to have prior knowledge to fulfill this task. Especially contemporary artworks could be in several forms; thus, prior knowledge could be required in

the description stage. In museum visits or in classroom studies conducted with the students, different art forms such as installations, video art, and land art should be included rather than just discussing paintings and sculptures. Certain contemporary art forms are detailed below. In the description step, detailed data should be collected about the techniques employed in the artwork. The methods each artist adopts to use the material and techniques may differ. These differences also affect the formal structure and expressions in the artwork.

Painting: Painting is one of the common art forms for the audience and could be identified easily. Figures are painted on canvas, paper, walls, etc. with various dyes to create a two-dimensional work.

Sculpture: Sculptures are three-dimensional art forms that could be produced with several techniques and materials such as clay, marble, wood, metal, and wax traditionally, and diverse material including plastic, waste or organic materials currently. The most important feature of sculptures is that it provides 360 degrees of perspective. If the work is mounted on a surface or it is in the form of a relief, this art form, which is close to sculpture, is called a relief.

Installation: With the employment of ready-made material in artistic production, installation art became popular and organizes art for a specific location, and the space and the object constitute the work of art. The artwork could include several daily life items, as well as products created by the artist. This could be confused with sculptures. A sculpture could be placed at several locations in a gallery; however, an installation could not always be displaced since it is integrated with the space. The viewer wanders around the sculpture and always looks at the artwork from the outside, the installation could include the viewer, which is another feature that distinguishes the two forms of art.

Photography: Invented in the 1820s, photography has been considered as a documentation and recording instrument ever since. Whether photography is an art form has always been debated after its adoption by artists. Employed as a supplementary material by artists in the 19th century, photography was accepted as a creative activity in the 20th century (Whitham & Pooke, 2010).

Video art: Artists previously shot videos to record their works such as performances and happenings; they used video as a documentation tool. Video has been also considered as the baseline in the transition of art into electronic media. Over time, different scenes were obtained with deformations or edits

on video images. Furthermore, video segments, short films or documentaries were produced in the field of video art (Altunay, 2004). There are screening rooms in galleries and museums for video artworks. Video may not always be watched by the viewer, sometimes it could turn into hybrid forms as a part of an installation (video-installation) or as a part of a sculpture. Video is an art form frequently encountered in contemporary art museums as one of the common tools of artistic expression.

Performance Arts: Performance arts, which was accepted as a genre in its own right in the 1970s and attracted interest due to its interdisciplinary character, became popular with several names such as “Performance Arts”, “Body Art”, “Happening”, and “Action” (Antmen, 2013). With the popularity of the idea that art should not be independent of society, but integrated with life and within life, performance arts were born in counter-art movements such as Dadaism and Fluxus. Performance arts generally entail the presentation of a theatrical performance using the body of the artist, in certain cases, it could be a collective effort including the spontaneous participation of the audience.

Land and Environmental Art: Land art, introduced by a few conceptual artists in the mid-1960s, emerged in America and was closely associated with minimalism and conceptualism. These projects, generally conducted in deserts, are considered as performance artworks since they are three-dimensional and temporal works created in a field. These interventions on nature are in a relationship with time and natural events (Kastner & Wallis, 1999).

New Media / Digital Media: These works, also known as “Digital Art”, “New Media Art” “Virtual Art” or “Time-based Art”, could not be categorized strictly; however, they share certain commonalities such as the employment of computers, internet and digital tools by artists (Yücel, 2012).

Ceramic: Three-dimensional works of art are produced by shaping clay with a mold or on a lathe, through firing and preferably glazing. The unique samples of this technique, which are produced by an artist and not for daily use, not for mass production but for artistic expression, are considered artworks.

The following questions could be asked in the description stage:

- What is the name of the artist?
- When was the work created?
- Which art form is this?

- Which technique was utilized? Which material were used?
- What are the dimensions of the work?
- Where is the work on display?
- What do you see in the work?

7.2. *Analysis*

In the analysis stage, a formal plastic analysis is conducted on the artwork. In this process, the organization of the design principles and elements is examined. The organization of the composition elements (form, color, texture, spot, space, etc.) and the design principles (rhythm, movement, balance, proportion, diversity, emphasis, unity) is determined. At this stage, knowledge on the stylistic features of the dominant art style of the period is required. This knowledge allows the analysis of the artwork based on the artistic style of the period. Tunah (2008) stated that as every individual has a certain vision, every period has a certain vision as well, and every artistic style displays a certain new attitude in the world. Thus, it is necessary to analyze the artwork based on the artistic perspective of its period. Furthermore, an artistic chronology should be developed (Table 1) and questions should be asked to determine the similarities and differences between the artistic styles of the previous and next periods and possible reasons for these similarities and differences. The formal analysis of the artwork should include the implementation of the elements determined in the description stage. Are the objects or figures the same as their natural counterparts or are they deformed? Is there a spatial perception in painting or is the approach purely abstract? These types of questions allow accurate determination of the formal structure and artistic style of the work.

The following questions could be asked in the analysis stage:

- Which lines are visible? (Straight, curved, broken, all).
- Which forms are used? (Geometric, organic, both).
- What type of colors are used? (Warm, cold, both).
- How is the relations between light and dark colors?
- How is the space was organized? (Straight, superimposed, deep field or all).
- How is the texture in the artwork? (For its own material structure; solid, soft, both).
- Which textures we fell in the artwork?
- Is there contrast in the artwork? (Light, dark, medium or high contrast).

- Are there repetitive forms?
- Are the objects or figures in the painting real size?
- Is the composition open or closed?
- What are the main movements that create the composition?
- What are the elements in these movements?
- Do the movements lead to a general scheme?

7.3. Interpretation

At this stage, the content of the artwork is analyzed. Questions such as What is the purpose of the artist in this artwork, does the artist try to deliver a message, are asked. In fact, this stage is similar to Panofsky's iconographic analysis. To determine the subject of the artwork and to understand the purpose of the artist, sociological, historical, economic factors prevalent in the period, the religious belief system, whether the work was a commission, and the psychology of the artist should be investigated. Does the work include any symbolic expressions? What do these expressions mean and in which culture? These questions should be asked in this stage. For example, why are the Byzantine frescoes and mosaics always featured gold background, or what do the tools held by a sculpture we see in a museum or the animals placed beside the sculpture symbolize? To determine the meaning of these symbols, it is necessary to know the date and geography of the work and analyze it based on the culture of the period. Also, not every artwork has to convey a message. Especially in modernism, artists attempted to purify the painting from all types of messages. In other words, it is impossible to clearly determine the emotions and ideas of the artist when analyzing an abstract painting. However, how students feel about these works is important. In this stage, based on the questions, students should be encouraged to develop personal ideas and expressions.

Several critics and aestheticians agreed that artworks demand "to be about something" and interpretation. On the other hand, some argued that art would speak for itself or that art could not be discussed. While the interpretation stage could be very clear and uncontroversial in some cases, sometimes different interpretations may be presented based on different perspectives. For example, when we return to the middle ages, it could be observed that the works reflected a standard iconography and several critics agreed about the subject of the work, while critics came up with different interpretations especially in the analysis of individual iconographies of the postmodern artists. Interpretation could be extremely subjective and reflects the interpreter rather than the interpreted

artwork. This should be avoided. However, this does not mean that the critic should not reflect feelings in the interpretation. The sentiment in the criticism should again refer to the work of art. The interpretations may differ based on the critic's world view and the adopted artistic theory. Comments should not be considered entirely accurate. In fact, the interpretation could be quite different from the expression aimed by the artist. Adrian Piper (cited by Barrett, 2014), an American conceptual artist, stated the following about the interpretation of his work: *“As soon as the work leaves my studio, I accept the fact that I cannot control its effects and I live with this fact... I can make assumptions about how people will perceive my work. But after all, I cannot be in someone else's skin....”* Certain artists are quite clear about their work, others do not prefer to discuss their work, do not want their art to be limited by their perspective. Either does not mean that the work could not be interpreted. However, it is important that the critic does not speak on behalf of the artist and tries to do more than copying the artist's ideas. Interpretation should also be about the artwork, not the artist. In the interpretation, although the artist's biography, psychology and life events should be investigated due to their impact on the production of the work, these should be included without precluding the work. The artist is a social entity and is influenced by the environment; thus, collecting information about the artist's environment that affected her or his artwork is necessary for a good interpretation. The audience could also assign individual significance or meaning to artworks, however, it is wrong to generalize these personal ideas (Barrett, 2014).

The following questions could be asked in the interpretation stage:

- In your opinion, what did the artist attempted to say in this work?
- Why could the artist produce this artwork?
- What do you feel when you look at the work?
- Could the colors, objects, and figures have certain symbolic meanings?
- Did an important event occur in the period that could have affected the artist?
- With which smell could you describe this artwork?
- Does the work remind you of a taste?
- Which music does the artwork remind you of?

7.4. Judgment

Art could be analyzed based on various criteria and these criteria could be grouped into four categories or artistic theories: mimetic theory, expressionism, formalism

and instrumentalism. Mimetic theory, expressionism, and instrumentalism could be considered pre-modern approaches. Formalism is often employed as a synonym of modernism. Although these theories are past views, they could still be used to guide the discussions about modern art (Barrett, 2014). In the judgment stage, the work of art is analyzed based on aesthetic theories and a final judgment is passed about the value of the artwork. As mentioned before, artistic theories distinguish artworks from other objects. Thus, based on the formal and iconographic analyses conducted in previous stages, in the judgment stage, the work's value in a certain artistic theory is determined.



Image 8. Michelangelo Buonarroti, “Pieta”, Saint Petrus Basilica, Vatican.

The artwork plays a decisive role in the determination of the criteria that would be employed in the judgment. For example, it would be right to judge a feminist work of art with functional criteria and an abstract painting with formalist criteria. The value of certain works could be judged based on more than one theory. For example, Michelangelo's *Pieta* (Image 8) is functional because it conveys a religious message, but also expressionist because it evokes emotions associated with maternal love and grief, it is also a masterpiece in mimetic theory, since the technique is masterful, and the figures are carved perfectly. But certain theories may contradict or could be mutually exclusive. For example, it does not make sense to criticize an artwork based on both formalist and Marxist aesthetics. While formalism judges art independent of the ethical parameters and social world, the primary criterion in Marxist theory is the relationship between the work of art to ethical issues. In the judgment stage, it should be remembered that liking or disliking an artwork is a personal preference and should not be

confused with artistic judgment. Artistic judgment is about “good” or “bad,” and a judgment should be justified. We may or may not like a work that is not good, and we do not have to defend this preference. In a judgment, reasons are expected to be provided and persuasive. Just like comments, judgments should be about the work, not the artist, social and personal values should be considered, and the feelings of the critic should not be ignored (Barrett, 2014).

It was suggested that there would not be significant disagreements about the criteria that would be used to judge the artwork produced before the 20th century. However, in postmodern art, it is not easy to agree, and pass a clear judgment. Harrison and Wood (2015) asked several questions about the comprehension of postmodernism and the expectations about typical postmodern artistic forms in “Art and Theory”. Some of these questions were the following: Are these the effects of those who removed the modernist barrier between high art and popular culture? Is it a culture represented and produced by those neglected by the modernism? Is it the culture of women, racially disenfranchised, exploited working class, oppressed sexual or political minorities? Or are the postmodern forms just the products of those who insist on creating expressions without originality? They stated that they would not provide clear and precise answers to these questions. Because although there is a common attitude among postmodern artists towards all limitations and clarity, the artworks could be highly individual and open-ended. Ambiguity, hybridity, individuality are all concepts close to postmodern ideas.

While the prefix post in postmodernism means ‘after’, or ‘beyond’, it is not clear whether it indicates the postmodern expression was the end of modernism, its metamorphosis, its rebirth, or its rejection. However, it could be suggested that postmodern was a criticism of modernism (Yılmaz, 2013). Thus, understanding postmodernism is only possible by understanding modernism. Because postmodernism makes sense within the context of its relation to modernism. Modernity began with the Enlightenment and glorified the mind as the source of progress in social change. While democracy, capitalism, industrialization, science and urbanization were the main movements and events of modernity, it also emphasized freedom and individual. While modernity was influenced by philosophers who were proponents of rationalism such as Rene Decartes and Immanuel Kant, postmodernism was influenced by the ideas of philosophers such as Friedrich Nietzsche, Martin Heidegger, Ludwig Wittgenstein, John Dewey, Jacques Derrida, and Richard Potry. While modernists believed that they could discover universally valid and applicable truths, postmodernists approached the modernist thought with skepticism, arguing that truth was not absolute, and

that all knowledge was structured by culture, language, individuals and groups. Given the characteristics of modern art, the artists could freely experiment within the ideal of ‘art for art’ and express personal attitudes without any limitations, the belief in artistic genius, the uniqueness, creativity and originality of the individual, and respect for masterpieces (high art) were prominent, low art (kitsch) that appealed to the taste of the middle class was disregarded, the narrative, historical or political content were abandoned, and there was a trend of abstract expressions. Although there are different views on the date when postmodernism was introduced, most agreed that it was the second half of the 20th century. Postmodernism rejected the differences between high and low art and universal communication as modernists advocated, identified the differences and dealt with them. These differences generally included differences based on class, race, sexual orientation, nation, nature, and region. They did not agree with the ‘art for the sake of art’ ideal, that is, they argued that art could refer to things other than itself. The image of the modern artist, who emphasized the creative power of the autonomous individual, was replaced by “a postman or a collage maker who transmits numerous images and signs that (s)he cannot create and control” (Barrett, 2014).

The following questions could be asked in the interpretation stage:

- Did you like this work?
- Do you think it is a good piece of art?
- Do you think it is an important artwork?
- Would you want to hang this artwork on your wall?
- Is the artwork worthy for an exhibition in a museum?
- Which room is adequate to hang this artwork?
- Why would anyone (the artist) want to create an artwork like that?
- Which part of the work you liked the most?
- Which artistic theory could be used to explain this artwork?

8. A Sample Work Analysis with the Pedagogical Criticism Method

In the sample work analysis presented below, the questions that students should provide personal answers are not included. The questions that entailed objective information required for the analysis of the work are included. These questions could be changed, reduced or others could be added based on the age and the attributed of the group. Furthermore, questions that would help the student to

express his/her individual ideas and feelings about the work should also be included.

Title of the work: ‘The Baptism of Christ’



Image 9. Andre di Michele Cioni Verrocchio “The Baptism of Christ”,
1479-90, Uffizi Gallery, Italy.

- **Who is the artist?**
Andre di Michele Cioni Verrocchio (1435-1488)
- **When was the work produced?**
1479-90 (Late 15th century, Renaissance)
- **Which art form is this?**
Painting
- **Which technique was employed? Which materials were used?**
Traditional Egg Tempera and Oil on Board.
- **What are the dimensions?**
1,77 m x 1,51 m
- **Where is the work today?**
Uffizi Gallery, Italy.

- **What is in the work? What do you see?**

There are a total of five human figures in the work. Christ is depicted with long hair standing right in the middle of the painting and praying. He wears a red striped loincloth. To the right of Christ, John the Baptist stands turned towards Christ, holding a golden bowl in his right hand and a scroll in the other hand where the cross and inscriptions are legible. St. John is dressed in blue, white and green garments. On the left of Christ, there are two kneeling angels in blue, green and white clothing, one holding the garment of Jesus. The other child gazes elsewhere. The scene is depicted on the banks of Jordan River surrounded by cliffs. On the left, a palm tree is depicted with green leaves. Behind the rocks on the right, there are green trees and a raptor flies towards these trees over St. John. On the top of the painting, above all, God's hands are visible coming down from heaven as the gates open up. A dove and golden rays pass through the gates symbolizing the Holy Ghost. All figures are depicted with halos on their heads symbolizing their holy nature. All figures have solemn and dignified expressions.

Table 1. Chronology of Art History

ROMAN 11.-12. C	GOthic 12.-15. C	RENAISSANCE 15.-16. C	MANIERISM 16. C	BAROQUE 16.-17. YY
				
Image 10. Storm at Sea of Galilee, HITDA Bible, 11th C., Hessische Landesbibliothek, Germany.	Image 11. Cimabue, "Maesta", 1290-1300, Uffizi Museum, Italy.	Image 12. Leonardo da Vinci, "Mona Lisa", 1503, Louvre Museum, France.	Image 13. Parmigianino, "Madonna with the long neck", 1534-40, Uffizi Museum, Italy.	Image 14. Caravaggio, "The entombment of Christ", 1602-3, Vatican Museum, The Vatican.

Analysis

- **Which lines are visible?**

Linearity, which is among the characteristics of Renaissance painting, could be felt in the general structure of the objects. Although there are no clear lines in the painting at the first glance, the lines on the loincloth of central figure, the linear

structures on the drapes, the oval lines reflecting the ripples in the river, the lines employed in the palm tree and the rocks, and the golden rays are prominent.

- **Which forms are used? (Geometric, Organic)**

Since the painting included human and nature figures, organic forms are dominant.

- **What type of colors are used? (Warm, cold, both).**

A large section of the painting is painted with warm tones. Also, the cold tones employed in the sky and clothing balance the hot and cold colors in the painting.

- **How is the balance between light and dark colors?**

Dark shades of green and brown were used, while light and moderate tones are dominant in the composition.

- **How is the painting illuminated, what could be the source of light?**

Universal light, a typical feature of Renaissance painting, is used. In other words, the light does not originate at a single point but distributed homogeneously. In Renaissance painting, everything is shown clearly so every object receives ideal light.

- **How is the space organized? (Flat, superimposed; with a depth or both).**

The space is organized in successive planes. This is a typical feature of Renaissance painting. The foreground includes the plane where the protagonists stand, the second plane includes the land extending towards the mountains in the background, and the heavens is included in the third plane.

- **How is the texture of the work? (Rigid, soft, both).**

The painting is extremely smooth. During this period, the artists tried not to leave any brush marks on the painting.

- **Which textures are observed in the artwork?**

In the work, we can observe the softness of the human skin, the texture of the fabric, the hardness of the rock, the transparency and fluidity of the water and the texture of the plant.

- **Is there contrast in the work? (Light, heavy, moderate or high contrast).**

There is contrast in the work, that is, we can see the stages where the colors change from dark values to light values. We can see these transitions clearly, especially on human skin and fabric.

- **Are the objects and figures in actual size?**

Yes, they are in real size. Before the Renaissance, it a hierarchy of stature was employed in several paintings where important figures were depicted larger than the others. For example, in Cimabue's Gothic "Maesta" (Image 11), Virgin Mary and baby Jesus are depicted larger in the composition. It is possible to see the same in Egyptian wall paintings or traditional miniature art. However, this practice was abandoned during the Renaissance.

- **Is there a rhythm in the painting and how was it accomplished?**

In the painting, we can see that the colors, textures and movements are repeated on the surface at certain intervals. For example, blue was not used in a single location, it was repeated in different hues on the surface, and other colors were also repeated over the entire surface of the painting. Horizontal or vertical movements are not concentrated in one place, they repeat in different sizes on the surface. The rhythm created by this repetition allows the eye of the viewer to wander around the painting creating a harmony.



Image 15. The composition diagram



Image 16. The movement diagram

- **What are the main movements in the painting?**

The main movements in the composition include the vertical movement created by the figure in the center and the diagonal movements formed by the children and the male figure on the right. These movements create a pyramidal form at the center of the composition. This form was preferred in several Renaissance paintings. The palm tree on the left and the tree rising over the rocks on the right also create a vertical movement. While there is a horizontal movement in the foreground at the feet of the figures, the horizontal movement created by the horizon line contrasts with the major and minor vertical and diagonal movements, preventing monotony. Furthermore, the symmetrical composition approach, a feature of Renaissance painting, was adopted. In other words, the movements on the right and left sides are almost evenly distributed.

- **Where is the emphasis and how was it accomplished?**

In this painting, all emphasis is on the figure at the center. Besides the central position of this figure, all other elements in the painting point to him. Thus, the emphasis was accomplished with movement.

- **Is it an open or closed composition?**

The composition is closed. The depicted event takes place in the outdoors. The event, described in the Bible, takes place by the Jordan river. However, all the elements and plot associated with the event seem to have been completed in the painting. There is no need for the viewer to search beyond the painting. Also, the use of landscape in the background is a typical feature in Renaissance painting. For example, Leonardo da Vinci's *Mona Lisa* (Image 12) is a portrait that includes a landscape in the background. The presence of landscape does not allow the painting to be an open composition. In the Baroque period, however, open compositions were preferred. In these compositions, the plot continues outside the painting. Another feature of the open composition (Images 17 and 18) is that it allows the viewer to glance the painting without emphasizing any section. The analysis of Rubens' "The Lion Hunt" would demonstrate that this Baroque painting portrays a hunting scene. At the first glance, the emphasis is on the hunter on the horse, stabbing the lion with a spear at a central position on the painting, but the movement and composition in the painting allow the viewer to glance the whole painting. The work, which is a moment in a hunting scene, makes one feel that the plot continues outside the painting. This allows the painting to be called an open composition.



Image 17. Peter Paul Rubens, "The Lion Hunt"
1621, Munich Alte Pinakothek, Germany.

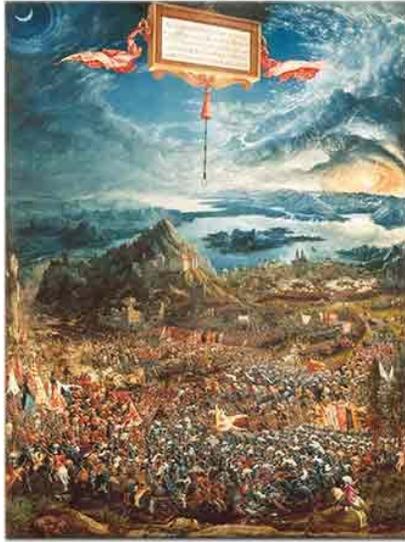


Image 18. Albrecht Altdorfer, “Alexanderschlacht”
1529, Munich Alte Pinakothek, German.

Interpretation

- **In your opinion, what did the artist attempt to say?**

The painting is about a religious scene. It depicts the baptism of Jesus Christ by Saint John the Baptist on the banks of River Jordan (Akkaya, 1990).

- **Who were depicted in the painting?**

The God, Holy Ghost, Jesus Christ, St. John the Baptist, and two angels were depicted in the painting.

- **Why could have the artist painted this painting?**

Until the 19th century, artists painted by commission. During the Renaissance, the church, royals and bourgeoisie commissioned artworks. Usually religious or mythological paintings were commissioned. This work, which is currently at the Uffizi Museum, was discovered in the San Salvi monastery in Vallombrosa, Florence. Religious paintings that adorned the walls of churches were the most effective way of conveying religious sentiments to the illiterate population. The trade-rich bourgeoisie commissioned several artworks to express their religious and intellectual personalities during the Renaissance. At that time, the artistic approach was quite different than the contemporary approach, the art of

painting was regarded a craft, and produced in the workshops by the masters and apprentices. The masters determined the general construct of the painting and left the remaining decisions to their apprentices based on the contract signed with the commissioner (several details including the colors and the placement of the figures were mentioned in these contracts). In this painting, it is known that the angel on the left was painted by Verrocchio's apprentice Leonardo da Vinci.

- **Are there symbolic meanings of the colors, objects and figures in this painting?**

An intense symbolism has been used in religious painting since the Middle Age. Every color and figure have a symbolic meaning in this type of painting. Thus, several symbols were used in the painting:

- Halo: Symbol of holiness.
- White dove: Holy Ghost.
- Cross: Christianity.
- Palm tree: The victory of Christ.
- The cup: The heavenly attributes of Christ and St. John.
- Mountains: Salvation.
- Black bird: Evil
- The hands: The hand of God.
- Red: Divine love.
- Blue: Heavens (Akkaya, 1990).

- **What is the message of the work?**

In the composition that depicted the baptism of Jesus by St. John, the angels on the left and the dove that represents the Holy Ghost and the hand of God reflect the message that the new religion was the salvation of humankind. The scroll in the hands of St. John reads a passage from John 1:29, "ECCE AGNUS DEI QUI TOLLIT PECCATA MUNDI" ("Behold the Lamb of God which taketh away the sin of the world") reinforces the idea.

- **Was there a significant event that could have affected the artist during the production?**

This Early Renaissance painting provides information about the changing mentality and artistic approach of the period. The Renaissance, which literally means rebirth, is a turning point in human and art history. In this period, the

traditions of the medieval age, which lasted more than 1000 years, began to collapse one by one. While religious issues were still dominant in the painting, schematic and planar descriptions acquired a depth due to perspective, and every detail of the human body was examined. In the medieval period when scholastic thought was dominant, the foundation of religious printing houses and literacy, and scientific developments shook the reputation of the church and people began to question their teachings. The ideas that contradicted the teachings of the church that advised people to live only for the hereafter led to reform movements. Realizing that this world was also precious and worth living, the joy of life among the Renaissance people was reflected in every aspect of their lives. The discovery of the compass and the technical advances in shipping, the discovery of other continents led to the development of trade and introduction of new raw materials. The enriched merchant class became the new commissioners of paintings. The re-discovery of ancient manuscripts led to a new worldview that was centered on humanity, not God. All these developments were reflected in Renaissance artworks.

Judgment

- **Which artistic theory can explain this work of art?**

Although this work, produced in early Renaissance, has certain traces of the Medieval approach, the simplicity of the composition, the flawless details in the figures, the features such as the background landscape were the harbingers of the High Renaissance painting. The painting was a depiction of a divine event, where symbols such as holiness and solemnity were conveyed. It implied that Jesus, the apostle of newborn Christianity, will save humanity from the darkness. This work, commissioned by the church, successfully conveyed the message to the illiterate. Thus, this work is associated with the instrumentalist theory. The naturalist style of the work makes it possible to analyze the painting with the mimetic theory due to the anatomical structures and the fine workmanship in the landscape.

Recommended Activities after the Review of the Artwork

1. A list of keywords that should be remembered is developed based on the student age group, characteristics of the work, and the subject, and activities such as crossword puzzles (see the crossword puzzle), word hunts etc. could be planned.
2. Students could be asked to paint based on the composition diagram of the work.

3. They may be asked to implement planarity, a typical feature of Renaissance painting, in their paintings to include at least three planes, namely foreground, near background and background.
4. They may be asked to adopt the closed composition approach in their own work.
5. They may be asked to think about the dialogue between the commissioner and the artist, and a drama activity could be organized to animate the dialogue.

9. Conclusion

Cömert (1999) expressed his ideas on art criticism as follows: *“tasting an art product, regardless of its genre, is directly associated with comprehension. The more we understand the work, the higher the pleasure we will get. Understanding, on the other hand, is only possible through research, examination leaving as little as possible to forces outside the mind, transforming our intuition and impressions into language and communicate these with others.”* Thus, just viewing an artwork is not sufficient to review it. Berger (2019) mentioned the relationship between what we see and what we know in “Ways of Seeing” and argued that our thoughts affect our vision. Art criticism requires serious research and reflection. Art criticism offers an experience where the student can synthesize prior knowledge and conduct logical analyses through causality. For example, when reviewing a Renaissance painting, the student could observe the effects of historical events such as reform movements, geographical discoveries, and the invention of the printing press on the artwork. The student could analyze and comment on the sociological effects of wars and the impact of the industrial revolution on artists during art review. The student could use geometrical knowledge when reviewing the formal structure of the work, determining the geometric structure of the composition or the angles established by the main movements. In short, art criticism assists the student to associate the visual arts with other disciplines through the synthesis of prior knowledge and the novel information.

The sample review detailed above demonstrated that the art criticism process requires significant attention and research. Furthermore, a good review requires a brief examination of the main events and the artistic style of the period and the factors that affected the development of this style, an understanding of art before and after that period, contemporary artists, and other works of the

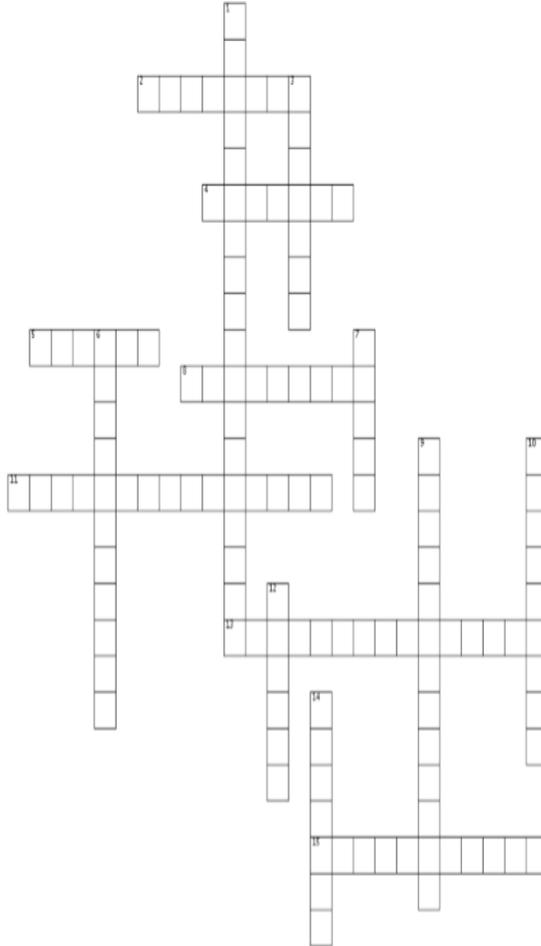
artist. It is important for the student to review the work based on the historical chronology and to associate the work with historical events to understand the work correctly. In this stage, art history chronology could be used as an effective material. Puzzles, worksheets, and artistic activities developed by the teacher or the students could be used after the criticism to reinforce the learning. However, in the limited time assigned for the visual arts course, which is an hour per week, it is not possible to conduct all the research, work, discussions, and applications. Thus, it could be suggested that improvement of the visual arts course content would also improve the intellectual knowledge in the society simply by increasing the weekly course hours.

Unfortunately, art education is still perceived by several circles as a field that should be reserved for only talented individuals. Talent alone is not sufficient to become an artist. It also requires hard work and an intellectual background that could be achieved by reading and research. Art is a quite particular field and a very demanding process. It is true that the visual arts course could help students with a predisposition to art to discover themselves and perhaps guide their future career choices, but on the other hand, it also aims to train individuals who value art and the artist, are aware of its significance, and respect, protect and preserve the works of art. When an art education student reviews art, the student could realize that a work of art is not produced easily and would not damage a sculpture, painting, historical building or other historical and cultural artifacts.

Art criticism allows students to be the part of an audience with an awareness about culture, art objects, and designs. Reviewing an artwork, judging its value, and all the research conducted, and experiences acquired in the process would improve student perspectives. As Cömert (1999) noted, the more the student understands the artwork, the more pleasure she or he would feel and need to experience similar pleasures in life. The student would acquire a fine taste and feel the need to adopt an aesthetic touch in every aspect of life. The student would act with an aesthetic concern when dressing, setting a table, placing the furniture, painting a wall and make the environment better. As Berger (2019) stated, viewing is an act of selection and we only see what we look at. The way a student who knows how to review art will look around, would change the student's choice of action forever. When becoming a conscious viewer of works of art and other visual objects, the student would also be a good observer of nature. The student would be aware of and admire the unique textures, colors, rhythms and diversity in nature. Thus, as the student conserves the artistic and cultural assets, the student would also be aware of the responsibility for the

nature. It could be suggested that someone who is predisposed to art would tend to avoid behavior that would harm the environment and nature.

CROSSWORD PUZZLE



Across

2. God-oriented approach was transformed into human-oriented approach during Renaissance. And it is called ...
4. The type of paint employed by Renaissance masters and produced by mixing the dye with gum, usually egg whites.
5. This institution commissioned Verrocchio's "The Baptism of Christ."
8. The illumination type employed in Renaissance paintings.

11. Verrocchio's "The Baptism of Christ" had a religious message. The theory that deals with such artworks.
13. Verrocchio's apprentice who produced significant works in Renaissance and is still a significant figure in arts and sciences.
15. The period of Verrocchio's "The Baptism of Christ."

Down

1. The significant event that ended the Middle Age.
3. The theory that associates success in an artwork with the resemblance of the original.
6. The church reform that started in Renaissance in Germany and spread all over the Europe.
7. The type of composition in Verrocchio's "The Baptism of Christ."
9. The Medieval ideology that excluded the mind and science and adopted by the church.
10. The composition diagram in Verrocchio's "The Baptism of Christ."
12. In art history, this period predated Renaissance.
14. The word Renaissance means...

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CHAPTER 4

MUSEUM EDUCATION AND AN APPLICATION PROPOSAL BASED ON MULTIPLE INTELLIGENCES THEORY

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1. Introduction

In the historical process from cabinets of curiosities to modern museums, museums have been important institutions that have been the memory of human history, acted as a bridge between the past and the present, and preserved the cultural heritage. Although the museum has been described with different definitions, according to the Charter of the International Council of Museums adopted by the 22nd General Assembly in 2007, “a museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment” (International Council Of Museums [ICOM], 2007). According to another definition, museums are “exciting public learning spaces, where learning by seeing, hearing, practicing and even living takes place, which includes the traces of the past, present and future in artistic, scientific, traditional, historical, technological and natural fields” (Buyurgan and Buyurgan, 2018, p. 68).

In addition to collecting, documenting, preserving and exhibiting, the educational functions of museums became prominent, especially in the

second half of the 20th century. It has been observed that teacher-centered approaches were abandoned and replaced by constructivist approaches in educational sciences, and the significance of the museums as an effective learning environment increased. Furthermore, the museum education, which conducted to allow communication between the museum collection and the visitors, became important and adopted by educational methods and theories. Önder, Abacı and Kamaraj (2009) reported that the convergence of museums with the public allowed the society to acquire a quality institution where the public and especially children could be educated. The educational function of the museum no longer entails spontaneous transfer of knowledge in galleries, but became a creative educational instrument due to the educational programs developed by the museums and the collaboration between the museums and schools. Onur (2010), associated four basic requirements with the development of museum education: Development of intercultural tolerance by discovering similarities and differences and raising awareness about other cultures, emergence of an awareness about the preservation of environmental and cultural assets, improvement of the quality of formal education, and employment of staff trained in archeology, art history and other fields.

Museums, the only institution that ensures the preservation of the cultural heritage and its transfer to following generations, are effective learning environments for art education. In art education, which requires collaboration between several disciplines such as art history, art criticism, aesthetics and art applications, museum visits significantly support the achievement of the objectives of art education. Art education does not target only talented students and aim only artistic applications. It also aims to train conscious viewers who enjoy art, have aesthetic sensitivity, and are aware about the works of art. This awareness is directly proportional to knowledge in art history, aesthetics and art criticism. Thus, it could be suggested that art education conducted in museums could lead to effective learning experiences and it would be beneficial to employ methods and techniques that could be attractive for different student profiles. Therefore, this section aimed to describe a museum visit, which includes activities that aim to develop various intelligence types based on the constructivist education theory that constitutes the infrastructure of museum education and the multiple intelligences theory. Thus, first, the historical development of museum education, the educational mission of the museums, the main educational theories that affect museum education are briefly discussed.

2. History of Museum Education

It is generally accepted that the educational mission of museums dates to the Museum of Alexandria, the first museum. This research institute was the first to collect Indian, Mesopotamian and Greek and other manuscripts and illustrations under a single roof. The institution that included a collection of artifacts, and plant and animal park was primarily a philosophical learning center (Artun, 2014). Museums were initially established in universities in the 17th century, and certain educators considered museum collections as educational resources even in that century (Onur, 2012). The museums became institutions that curated artifacts and exhibited these collections in palaces as a part of the aristocratic tradition and a symbol of social prestige for the nobility and clergy which possessed similar knowledge and social status. Due to the limited number of resources and access difficulties, various plants, animals, etc. were exhibited in addition to the works of art and antiquities, serving as education centers. With the enlightenment in 18th century Europe, collections and museums started to be established in London, Paris and other important cultural centers of the period. The establishment of museums for educational purposes were initiated due to the social structure induced by the enlightenment movement in France and public museums were established after the French Revolution in 1789 and proliferated with the industrial revolution. Louvre Museum was the first public museum and spread the idea of nationalism and public education after 1793, and educational museums were established in the United States in the same period (Tezcan Akmehmet, 2018). In the 18th century, the aristocratic collections were transformed into museums. Although public museums were inaugurated in Italy and the United Kingdom in the 16th and 17th centuries, the first public museum was actually the Louvre. In the 19th century, known as the “age of museums”, the monarchs were replaced by governments and the citizenship was emphasized in the museum model pioneered by the Louvre Museum (Artun, 2017). The educational mission of the museums served political objectives such as the establishment of the authority of the government and promotion of nationalist emotions, as well as the transfer of knowledge and values to train ideal citizens (Tezcan Akmehmet and Ödekan, 2006).

In early 19th century, museums were established to inform and educate people. In this period, museums curated historical artifacts from all over the world to inform people about the world they live in. In fact, they were considered as educational institutions to train uneducated individuals. The main factors behind the acceptance of the museums as educational institutions were the working- and middle-class beliefs about self-development and education, the recreational

activities provided by the museums for the working class, the civilizing and humanizing power of arts, and the fact that museums were neutral places that all social classes could peruse (Greenhill, 1999). In 1846, the Brooklyn Children's Museum, the first educational museum for children, was established in 1899 by the Smithsonian Institute, to which several museums are affiliated today, and then, by the Brooklyn Institute of Arts and Sciences for the dissemination of knowledge (Tezcan Akmehmet, 2018). Thus, it was observed that educational museums became prevalent.

In the 1920s, the educational role of museums was less supported. Different benefits of the museums such as development, preservation and sustenance of the collections came to the fore. Specialized educational staff were employed to serve students and adult visitors. The organization of school visits and loan services were vested in museum teachers in state museums. In the same period, gallery tours were organized for adults by counselors in national museums (Greenhill, 1999). It was observed that the problems experienced during the war disrupted the development of museum education, similar to other fields.

After the Second World War, the educational significance of museums increased. Until the 1950s, museums focused on educational activities for children and school groups; however, after the 1950s, the services for adults began to increase. After the 1950s, the view that learning should not be limited to formal education institutions and the concept of lifelong learning became prominent, leading to an increase in museums. Also in the 1950s, modern people started to have more time for leisure activities and to enjoy culture and knowledge, developed various interests including museums. The educational role of the museums were emphasized in various reports in Europe and the USA after 1960. The establishment of international organizations such as UNESCO (United Nations Educational, Scientific and Cultural Organization) and ICOM in mid-20th century led to the establishment of international standards in museum education and museology. In the second half of the 20th century, museums in several countries started to establish education departments and appointed education experts. After 1970, a new approach to museology began to emerge. Museology no longer adopted the object-oriented approach based on the curation of collections, but an approach based on transfer of knowledge to new audiences, and the interpretation of the existing collections (Tezcan Akmehmet, 2018). Thus, the educational role of museums became significant once more. Then, educational programs were designed for various target audiences that included interactive installations, theater and drama with different exhibition techniques and allowed visitors to participate in exhibitions more effectively (Greenhill,

1999). In early 20th century, the developments in educational philosophy in the United States and Europe led to the replacement of the traditional educational essentialism by the progressive education approach. Thus, museum education was emphasized in formal education. The philosophy of progressive education was based on the development induced by learning to learn and the interaction between the students and their lives and relevant environmental conditions, and concepts such as learning by doing and living, lifelong learning, individual differences, learning activities and problem solving became the emphasis of the educational approach. Due to these developments, education departments that serve schools were established in museums in early 20th century. Due to the developments in education, curricula were discussed and scrutinized by political scientists and sociologists in late 20th century (Tezcan Akmehmet, 2018). Several educational reforms such as the abandonment of the educational approach where the student is a listener and the teacher is a lecturer, introduction of equal opportunity and democratization in education led to the reorganization of educational activities for visitors in the museums, and the museums reached the masses. Museum collections were considered as educational assets (Adıgüzel, 2019). After the 1980s, it was observed that schools were more interested in museums. The museums also organized exhibitions that included educational activities based on the curricula to attract school groups. Museum education was thus accepted as a field that required a separate expertise and education after 1990. Thus, experts with knowledge, skills and experience in museum education were appointed. The advances in communication technologies and devices in the 21st century also affected museum education. Today, interactive and educational exhibitions are organized in museums that utilize technologies and allow communications with the audience outside the museum and with social media tools (Tezcan Akmehmet, 2018).

The development of museology dates to the Ottoman period in Turkey. In the Ottoman Empire, the museums were considered as a type of warehouse where ancient artifacts were preserved and stored. The first museum was established in 1846 at the Hagia Eirene Church in the Ottoman Empire to preserve old weapons. Then, the limitations of the Hagia Eirene led to the construction of an additional building, and the Imperial Museum, a milestone in Turkish museology, was established. This museum was named Ancient Artifacts Museum later on, and Istanbul Archeology Museum after the Republic.

The educational activities of Turkish museums were developed by the state, particularly the Ministry of Education, and in 1869, the museum was affiliated to the Ministry of Education and classified among educational institutions.

Although museums were affiliated with the Ministry of Education in the Ottoman Empire, they were accepted as educational institutions and collaborated with the schools in the Constitutional era. Due to the introduction of new museum types, the number of museums increased during the Constitutional era. The national political infrastructure is effective on the assignment of various meanings to the museums. Thus, apart from the duty of protection and preservation, the museum played a key role in public education and became the symbol of the state ideology. During this period, educators İsmail Hakkı Baltacıoğlu and Satı Bey significantly contributed to museum education (Baytar, 2017). Satı Bey emphasized the educational significance of the museum, and employed an instructional method that concentrated not only the education in school but also museum trips that allowed the investigation of the social and historical environment. İsmail Hakkı Bey, on the other hand, argued that museums played a key role in cultural history (Öztürk, cited by Baytar, 2017).

The 1939 report by the American educator John Dewey, who was invited to Turkey by the Ministry of National Education in 1924, contributed to the development of museum education in Turkey. The report emphasized the need to organize mobile exhibitions, allocation of the necessary funds, and the emphasis of handicrafts in education (Dewey, 1939). In 1980, the first educational “museum workshop” in Turkey was inaugurated by the Istanbul Painting and Sculpture Museum Association. In 1982, at the 1st National Cultural Council, “museum education” was emphasized and it was proposed to establish special sections for children in museums. In 1990, in Antalya and in 1995 in Istanbul Archeology Museums, Children’s sections were established in Antalya Archeology Museum in 1990 and Istanbul Archeology Museum in 1995 for museum education, which allowed children to have fun and learn about and experience history with games (Çıldır, 2014).

After the mid-20th century, the educational function of the museums became important. While these activities mostly aimed the school groups until the 1950s, educational activities and activities for different visitors such as students, teachers, adults, families and disabled groups were adopted after the 1990s. It was considered that the contributions of museums to schools were not realized until the end of the 1990s. This was due to the museology methodology based on the curation, preservation and exhibition, which focused on the object. After the 1980s, the community-oriented museology approach, which claimed that education was one of the primary objectives in a museum, was accepted. Educational programs for schools and educational departments were adopted by private museums that were established towards the 2000s (Tezcan Akmehtmet,

2012). Today, private museums host higher number of educational departments, assigned experts in these departments, and the diversity of educational activities when compared to the state museums.

3. The Educational Mission of the Museums

Learning is quite comprehensive in the museum, it could include several fields including historic artifacts, art pieces, scientific, technological and natural objects. In addition to these diverse collections, museums offer activities and programs that would contribute to the informal education of children, and educational activities that would support formal education conducted by expert staff in educational departments. Museums, the visitor profile of which is not limited by school groups, are prominent institutions that offer lifelong learning opportunities and activities for an audience that includes preschool children, families, young individuals, corporate employees, disabled individuals, the elderly, and disadvantaged groups. The educational mission of museums has become increasingly valuable, and the number and knowledge of professional museum educators have increased every day. Due to these developments, the quality of museum education increased, and these facilities attracted individuals from all walks of life.

The contemporary museology approach prioritized the education of the visitors instead to curation. The contemporary museum education approach is not satisfied with the classified exhibition of the museum collection allowing the visitors to comprehend the exhibited pieces. According to Onur (2012), “a museum expert who has not heard of Dewey, Piaget, Vygotsky, Gardner, a psychologist or educator who does not know that development and learning theories are tested in museums, a sociologist or public educator who is unaware of the community services available in museums could not know what she or he misses” (p.17). Today, museums are perceived as alternative spaces for modern formal education. The methods developed for universal and easily accessible collections are mostly associated with the “learning theories” proposed by Jean Piaget, Jerome Bruner, Maria Montessori, David Kolb or Howard Gardner (Pater, 2016).

Since the 19th century, especially in the second half of the 20th century, museums and schools have been in strong communication. As approaches such as learning with objects, learning by touching, learning by fun became important, innovations such as the establishment and expansion of children’s museums, museum services, mobile museums, museum-schools led to more effective and

accessible museum education (Onur, 2012). As experience became important in education, it was conceived that museums were also effective learning by living environments for all age groups. Since the student is not a passive receiver in the learning process, a process that includes searching, finding, structuring, interpreting and synthesizing knowledge leads to more effective and permanent learning, and museum visits could serve as adequate environments for all above-mentioned desired behavior. As an informal learning environment, museums create a fun learning environment. The student, who is a listener in the classroom environment, could be exposed to a higher number of visual stimuli in a museum and have more permanent learning due to the presence of activities that allow the students to use tactile, olfactory and taste senses.

The museums, where learning with objects and group learning are important, provide more effective learning experiences such as meaningful learning, learning by discovery, contextual learning, thinking about thinking, research and exploration when compared to the classroom environment. Museums allow learning by living by the association of the learning and daily life experiences. The activities that include objects activate skills such as close observation, questioning, discussion, comprehension, documentation and comparison. Education with objects makes it easier for the students to implement the knowledge they learned at school and to build bridges between learned knowledge and current learning. In a museum, the educators facilitate the learning process to allow the visitor to enjoy and experience the museum at the same time by balancing education and leisure (Onur, 2012).

4. Major Educational Theories That Affected Museum Education

It is observed that John Dewey's ideas contributed significantly to the development of museum education in the 20th century. American philosopher and educator John Dewey (1859-1952) accepted the educational value of museums and considered the museum as a part of educational experience in his theory. Dewey tried to integrate life experiences with educational activities at school. In the "Laboratory School" he founded at the University of Chicago in 1896, he organized museum visits for the students. The school educated children between the ages of four and fourteen with active instructional methods (Onur, 2012). Dewey claimed that learning is a social and interactive process and influenced museum education. He emphasized that the experiences with families and museum staff play a major role in the learning experiences of the children and was one of the most famous advocates of "hands-on" learning (Porter &

Cohen, 2012). “Hands-on” learning was based on learning by touching, doing and entertaining activities and involving the visitor in every aspect of the process, beyond the traditional exhibitions and courses that prohibited touching the objects.

Children’s museums were established in the late 19th century based on the educational theories of Dewey and Montessori. Both theorists argued that children should be allowed to think on their own and touch the objects during education (Onur, 2012). According to the Montessori Method, which is still popular, the basic educational principle is the freedom of the child, education should be based on life, not any calendar, schedule or program. The environment of the student should be adequate for the age, interests, requirements and skills of the child, the supervision and assistance of an adult should be reduced in this environment, allowing the self-improvement of the student (Korkmaz, 2012). Similarly, according to Bruner (1991), who developed the theory of learning by discovery, the environment should be organized to improve the willingness of the child to learn at school. Knowledge should be structured for easy comprehension by the student. After any idea, problem or knowledge is presented to the student simply, the student should be allowed to explore the problem-solving options with curiosity (Bruner, 1991). Bruner’s discovery method also provided an infrastructure for museum education. Learning by discovery proposes three modes: animation where children represent the world, iconic (representation by a mental picture of experiences), and symbolic (representation by symbols). Thus, several science museums presented exhibitions that encouraged learning by discovery (Ambrose & Paine, 2012). Another interesting theory on museum education was proposed by David A. Kolb. Kolb’s (2015) experiential learning theory argued that individuals learn by experience. In experiential learning approach, which prioritized direct experiences instead of reading, listening, speaking and writing activities that take place in traditional classroom environment, the emphasis was usually on direct sensory experiences and contextual acts as the primary source of learning.

Falk and Dierking (2013) discussed museum visits based on the “Contextual Learning Model” they developed. Given the existence of numerous and diverse museums and visitors, they discussed the museum visits based on three overlapping and interacting contexts to determine the reasons for museum visits, the activities conducted during these visits, and their perceptions about these experiences. These contexts included personal, sociocultural, and physical contexts. These three main factor groups contribute directly to learning in museums and could be associated with the personal context: (1) an individual’s

motivation and expectations from the visit; (2) the knowledge, interests, and beliefs of the visitor, and (3) the personalized learning in museums. These provide opportunities for the choice and control of learning, especially in museum experiences of most individuals (Falk and Dierking, 2000). The contextual model is a dynamic system. Each context is recreated by the visitor, and the interaction between the contexts over time actually becomes the visitor's museum experience. Each context influences the visitor. The first context is the "personal context": each museum is unique in visitor experiences, personal content and information. Personal content includes each visitor's preferred learning model, level of development, personal interests, attitudes, and motivations for the visit. These features determine the outcome of the museum visit by determining the personal experiences of self-realization. It also includes expectations about the museum experience and its end. The second context is the "sociocultural context": museum visits take place within a sociocultural context. Part of this context is based on the visitor, and the other part was organized by the institution. Visitors have different cultural backgrounds. The perceptions about the museums differ based on the different values, beliefs, ideas, language, country, socioeconomic status of the individuals. The values and belief systems of the individuals could be compatible or incompatible with the museums. In addition to cultural factors, every museum visitor is strongly affected by the factor of social interaction in the museum. The third context is the "physical context": it includes the architecture and feel of the building, the objects and artifacts in the museum. Physical content strongly affected everything visitors remember about and observe in the museum (Falk and Dierking, 2013). The interaction between these three contexts leads to personal experiences in the museum.

Learning in the museum offers informal learning opportunities, emphasizes tangible material, often based on museum collections and exhibitions. Learning research in the museum that analyze visitor experiences, who make active sense of their experiences, are based on learning theories. Although the development of museum exhibitions and programs is based on several above-mentioned learning theories, "constructivist approach" and "multiple intelligences theory" have been the most prominent theories (Onur, 2012).

Behavioral learning approaches were largely abandoned in late 1980s, and the constructivist approach that prioritized the creation of an active meaning by the visitors was adopted (Csikszentmihalyi, cited by Riedler, 2016). The behaviorist approach believed that behavior is mainly learned during practice and experience. It was criticized for suggesting that humans do not choose, but

only respond to environmental stimuli. In museums, this approach was applied by accepting the exhibition as a stimulus and investigating the impact of the exhibition on the attention of the visitors (Ambrose & Paine, 2012). Instruction and learning, conducted based on behaviorist theories in a teacher-oriented environment, in where the student is a passive receiver, are dominated by the museum instructor and based on the knowledge on the behavioral patterns of the visitor. Although certain scientists still advocate behavioral learning theories in museum education, the interest in new learning theories and applications has been increasing in museum education (Riedler, 2016). Constructivist theory was based on the works of Jean Piaget, John Dewey, Lev Vygotsky, and Jeremy Bruner. Constructivism emerged as a concept associated with the nature of knowledge, and is not a theory about instruction but knowledge and learning (Demirel, 2011). Constructivism refers to the construction of knowledge by the student. In contrast with the traditional educational approach, it advocated that no information is independent of the learner, the only knowledge is what we construct during learning. Constructivist approach became prominent in the late 20th century and opposed the previous behavioral approaches. In the behavioral approach, where learning is controlled by the teacher, the student is a passive receiver and acquires knowledge by repetition and reinforcement, the curricula are instructed inductively and prioritizes the basic skills. Constructivism, on the other hand, argues that learning is a process of making sense or constructing meaning and each student constructs meaning individually and socially. Thus, it emphasizes learning not instruction. In the constructivist approach, the student's autonomy and entrepreneurship are encouraged to improve the student's desire to learn, the student's knowledge is questioned, the student's sense of curiosity is activated, and it includes a process that allows experiences by emphasizing both what the student will learn but also how the student will learn. Environments where students could learn by self-experience are organized. In all these processes, estimation, creation and analysis play key roles (Özden, 2014). A constructivist classroom environment reaches beyond the traditional classroom physically, students are not expected to sit in fixed rows of desks and listen but the class is organized to allow the students to have rich learning experiences. The curriculum, on the other hand, is not fixed and could adapted based on the predictions about the students (Demirel, 2011).

Constructivism relies on Jean Piaget's theory that individuals construct new knowledge based on their experiences (Porter & Cohen, 2012, p.8). There are two basic views that explain the construction of knowledge in the constructivist approach. Cognitive constructivism, based on Piaget's views,

assumes that knowledge emerges during an individual's active interaction with the environment. The individual makes sense of the new knowledge based on his or prior knowledge and the cognitive structure based on the prior knowledge. Social constructivism, based on the views of Vygotsky, argues that culture and language play a key role in learning. Vygotsky argued that learning is not a process conducted only by the individual but affected by social interaction and language as suggested by Piaget. In education literature, the social constructivist learning model is christened as "collaborative learning". Social constructivism attempted to ensure that students study collectively and interact with each other, and the new acquired knowledge is shared and discussed with peers and teachers. In this process, the teacher is not a source of knowledge, but a guide in the construction of student knowledge (Özden, 2014).

'Constructivism' was effective in museums that provide natural opportunities for interaction with the environment and construct their worlds (Ambrose and Paine, 2012). George E. Hein was the philosopher who emphasized the constructivist theory in museum education. The constructivist exhibitions are developed based on the predictions about the visitor perceptions about the material and the concepts constructed based on these predictions. A constructivist exhibition primarily aims to create a visitor experience. Instead of focusing on the required instructional knowledge, these exhibitions offer facilities for the visitor to widen their perspectives, establish new bonds, and expand their understanding. Furthermore, museums allow interaction and sharing among social groups such as school and family groups and community members could learn from others and contribute to the experiences of others consistent with the dialogic structure of social constructivism (Onur, 2012). The idea of creating an experience for the visitor is supported not only by the organization of the exhibitions but also various activities. One of the most effective of these activities is the games. Games, the significance of which in learning was also emphasized by Piaget and Vygotsky, lead to both cognitive and social development of the participants. Several authors agreed on the significance of games in child development. Children learn to explore and invent, expand their imagination, identify and solve problems, play roles, and make sense of the objects when playing games. Some museums designed exhibitions that encouraged game play and employed structured artistic activities to achieve the same goals (Ambrose and Paine, 2012).

Postmodernism and postmodern ideas affected educational activities, exhibitions and curation in museology. The collections and curation aimed to

reach multicultural groups that included different races, gender, classes, skills and religions (Riedler, 2016).

Museum education methods were also influenced by the “Multiple Intelligences Theory” developed by Gardner. According to Gardner (2019), museums aim to instruct some things to the students to teach and to improve their comprehension through interaction. Museum visits should not be occasional and pleasant outings. For an effective visit that allows comprehension of the exhibition, long-term relationships should be established via effective and repeated visits.

The theory of multiple intelligences developed by Howard Gardner approached the intelligence as a problem solving or production skill within one or more cultural frameworks. Since 1983, when Gardner’s book “Frames of the Mind: The Theory of Multiple intelligences” was published, the theory became quite popular, and after the book, where 7 intelligence types were determined, 8th and 9th intelligence types were introduced. The theory, which was also often criticized, opposes the singular intelligence approach. Gardner did not agree with the idea that intelligence was innate and stationary, and it could be quantitatively measured with certain tests. He claimed that the popular IQ tests that quantitatively measure intelligence could reflect an individual’s ability to tackle school topics, but they provide little clues for success in life. According to Gardner, the methods employed in intelligence tests are not associated with daily life and lead to a “forced” analysis of human intelligence. Even before Gardner, certain theories proposed the existence of independent intelligences; however, these could not provide sufficient and convincing evidence. Gardner employed multidisciplinary data such as psychology, biology, neurobiology, genetics, and worked with different groups of individuals such as geniuses, intelligent people, people with brain damages, idiot savants, typical children, typical adults, and people from different cultures. He argued that intelligence types are often correlated, no performance is simply based on a single intelligence type; however, these intelligent types are independent. His theory was principally based on research on lost skills in individuals with brain damage. Gardner argued that the investigation of the educational implications of the theory would allow the determination of an individual’s intellectual profile at an early age, which could in turn improve the individual’s educational opportunities and options (Gardner, 2017). Gardner underlined that intelligence should not be confused with learning styles. While intelligence is like a computer with variable power, learning styles are the individual approaches to different tasks. Gardner (2019)

argued that in education, it is important to be aware of the student trends and to guide them based on their intelligence profiles.

The nine types of intelligence categorized by Gardner were linguistic-verbal intelligence, musical intelligence, logical-mathematical intelligence, visual-spatial intelligence, bodily-kinesthetic intelligence, intrapersonal intelligence, interpersonal intelligence, naturalistic intelligence and existential intelligence.

Linguistic-Verbal Intelligence: According to Gardner, linguistic competence is the most prevalent and democratic intellectual skill in human species. Language is the highest of human intelligence types. Especially poets and writers improved this competence to a very high level. It could be suggested that political leaders and lawyers with language skills to persuade others have higher linguistic intelligence in addition to the poets. Furthermore, language is important due to its potential to cipher, which mediates the remembrance of knowledge. The role of language in discussion, instruction and learning is another important aspect of language (Gardner, 2017).

Musical Intelligence: Music is associated with human symbol systems and intellectual skills. According to Gardner, music should be considered as an autonomous intelligence, although mathematical elements such as repetition and ratio in music are associated with mathematical intelligence or spatial skills due to the management of musical skills in the right hemisphere of the brain. Previous studies evidenced that musical skills are usually manifested at an early age. There are children who could recognize the melody and the octave and repeat it accurately at the age of three, or who could remember hundreds of notes and play the same melody on several instruments. Except for those with extraordinary musical skills, autistic children, or children with exceptional training (children trained with the Suzuki Method in Japan who could play musical instruments in preschool age), the development of musical skills remain at a certain level during the school years. Since the acquisition of language skills is prioritized in school, the school usually does not contribute significantly to the development of musical intelligence (Gardner, 2017).

Logical-Mathematical Intelligence: The logical mathematical intelligence is primarily based on the perception of objects. According to Piaget, young children acquire basic knowledge by organizing and counting the objects they encounter, and only later acquire pure abstract thought. The most important trait of mathematicians with high logical-mathematical intelligence is their ability to process long reasoning chains skillfully (Gardner, 2017).

Visual-Spatial Intelligence: The essence of spatial intelligence is the accurate perception of the visual world, and ability to alter or transfer this perception, and to reproduce visual experiences even in the absence of physical stimuli. The first spatial skill is the perception of a shape or object. This skill could be tested by asking to reproduce a shape exactly or asking questions about how the shape would look from different perspectives. Another dimension of spatial intelligence is the determination of the similarities between two seemingly dissimilar forms. Also, several scientific theories have been developed based on certain analogies that create visual images in the mind. Freud's comparison of the unconscious with the invisible section of the iceberg or John Dalton's comparison of the atomic structure with the solar system. Individuals with high spatial intelligence could find their way easily, estimate the shortest route, draw or read maps, recognize objects, faces, scenes, notice fine details and other peculiarities. Gardner christened this type of intelligence, which was referred to as visual intelligence in other resources, especially as spatial intelligence due to his studies with visually impaired, which revealed that spatial knowledge was not completely dependent on the visual system. It is very difficult for a painter, sculptor or mathematical topologist to advance without spatial intelligence (Gardner, 2017).

Bodily-Kinesthetic Intelligence: Bodily intelligence includes skills based on the employment of one's body. The peculiarity of this type of intelligence is that it allows deft employment of the body, both for expression or to complete a task. Pianists, typists, hunters, cooks, and farmers, who use their hands to guide, organize and change objects, actors, pantomimes, dancers and athletes, who use the whole body to act, have high physical intelligence (Gardner, 2017).

Intrapersonal Intelligence: Intrapersonal intelligence is associated with the emotions of an individual. The intrapersonal skills are about the analysis of emotions, the recognition of the differences between emotions, assignment of symbolic codes to the emotions and their employment to comprehend and adopt behavior. The key external skill is to notice other individuals and distinguish them, to sense their motives and moods. The typical form of intrapersonal intelligence is achieved by learning the symbol system of a culture. The better an individual recognizes own feelings, the more she or he would protect himself from being a prisoner of her or his emotions. An individual's personality also deeply affects her or his relations. As long as an individual understands the emotions, reactions and behaviors of others, the interaction of the individual with others would be positive and the individual could sustain as a member

of the society (Gardner, 2017). This intelligence type includes possession of an effective model including the capacity of recognition of one's self, desires, fears, and capabilities, and the employment of this knowledge effectively in daily life (Gardner, 1999).

Interpersonal Intelligence: Social or interpersonal intelligence could be defined as the basic capacity to notice the differences between individuals. People with social intelligence could immediately notice the differences between the moods, temperaments, motivations, and dispositions of others. This skill is highly manifested in religious or political leaders, teachers, therapists, and parents. Individuals with high social intelligence are more successful in collaboration, leadership, organization and solidarity (Gardner, 1993). Individuals with social intelligence also work effectively with others (Gardner, 1999).

Naturalistic Intelligence: Associated with the recognition and classification of various species in the flora and fauna, this type of intelligence entails the sensibility of an individual about the nature and the world, the skill to understand the natural environment. Individuals with high natural intelligence are more interested in the natural world of animals, plants, and events and they enjoy being in nature. They could identify, classify, and are sensitive to natural phenomena (Gardner, 1999).

Existential Intelligence: Gardner began working on existential intelligence after he determined the eight types of intelligence; however, he was hesitant to call existential intelligence a main type of intelligence. He continued to mention eight and a half types of intelligence. He clearly stated that his hesitation in declaring the existential intelligence as a main type was due to the lack of evidence about brain section that controlled deep existential issues. Based on Gardner's studies on existential intelligence, individuals with high existential intelligence could ponder the most fundamental questions about existence. These questions included "Why do we live? Why do we die? Where do we come from? Where do we go? Why do we fight? What is love?" and issues that are too big or too small to be perceived by the five basic senses. Philosophers, religious leaders, and influential statesmen first come to mind as individuals with high existential intelligence. In fact, existential problems exist in every culture, religion, philosophy, art and even ordinary stories of daily life. In any society that tolerates questioning, children could ask these existential questions at an early age (Gardner, 2006).

4.1. Museum activities that could be conducted in the visual arts course based on the multiple intelligences theorem

The activities that could be conducted in archeology and art museums during museum visits in the visual arts course based on the theory of multiple intelligences are presented below:

Linguistic-Verbal Intelligence: Museum activities should allow the participants to express themselves verbally. Activities such as storytelling, puppet theater, shadow play that are frequently organized in museums aim the development of linguistic intelligence. Also, activities such as poetry reading, acrostics, creating a dialogue between the protagonists in the museum collection pieces, development of thought balloons, writing a story about the artworks, creating a slogan, writing lyrics could be conducted.

Musical Intelligence: Particularly, the musical instruments encountered during art or archeology museum visits could be introduced and the music and the songs of the period could be estimated. The music of the period could be researched and listening activities could be conducted if possible. Questions such as “What genre of music or song could be associated with this piece,” could be asked. The relationship between a picture and a song that include movement could be discussed. Music research could also be supported by research on dance. For example, the type of choreography and the dance depicted in the “Dancing Girls” frieze presented in Image 1 and the type of music that the dance could be performed with could be discussed.



Image 1. Burdur Archeology Museum “Dancing Girls”

Logical-Mathematical Intelligence: To activate this type of intelligence, activities where the student could establish a causality should be conducted. For example, during the examination of an impressionist piece, it would be possible to talk about why the centuries-old classical traditions were abandoned and the artists began to search for new approaches. Different or similar works could be compared. It is possible to estimate the shape, form or purpose of a piece in the collection to reach a logical explanation. For example, visitors could be asked to think about the reasons for the pointed bottoms of the antique amphorae presented in Image 2.



Image 2. Bodrum Archeology Museum “Amphorae”

Visual-Spatial Intelligence: Museums activate spatial intelligence due to the presence of various visual stimuli. Two- and three-dimensional artworks could be created based on the museum collection. These could include drawings of objects in the museum, drawings that complete the missing parts of the original works, lithographs, photography, animations, flipbooks, collages, sculptures with various materials, reliefs, ceramics, mosaics, origamis, and assemblages. Furthermore, concept maps, videos, exhibition guides, direction maps could be employed to support certain activities.

Bodily-Kinesthetic Intelligence: The learning environment in museum visits, unlike the traditional classroom environment, allows the student to move constantly instead of sitting at a desk. Activities such as games, drama,

pantomime, and posing as the statues or figures in the pictures (Image 3) could also provide enjoyable learning experiences for students with bodily intelligence.



Image 3. Hatay Archeology Museum - posing activity

Intrapersonal Intelligence: Students could be asked to reflect on the emotional states of the figures in a painting or sculpture and the reasons behind to improve intrapersonal intelligence. Then, questions could be asked about their feelings about the artwork. Allowing the students to spend some free time in the museum tour would lead to personal experiences in the museum collection.

Interpersonal Intelligence: Museum activities based on groupwork, dramas and games aim the development of social intelligence. The popular games could be adapted to the historical period of study, or the games that were popular in that period could be played, the groups could design a brochure about the museum, prepare an album, a short animated film, design ceramic panels, create mosaics, and play charades.

Naturalistic Intelligence: The animal and plant depictions in the museum collection could be identified and their symbolic meanings could be investigated. The visitors could reflect on the properties of selected plants or animals. In Image 4, the four seasons are represented in the columns of the “seasons” sarcophagus exhibited in the Aphrodite Museum. Questions could be asked about the plant and fruit motifs in this artwork, and students could reflect on the relationships between ancient people and nature. Furthermore, the natural materials used to create the artworks could be discussed.



Image 4. Aphrodite Archeology Museum “The Four Seasons Sarcophagus”

Existential Intelligence: Throughout the human history, different civilizations established in various lands found different answers to their reasons for existence, and the spiritual values produced due to these differences determined the art in that civilization. Investigation of the artworks of different civilizations such as Egyptian, Greek or Islamic civilizations would reveal that these civilizations produced different reasons for existence. Examination of the works of different cultures, discussion of the ideas and behavior of that culture on existence are among the activities that would develop existential intelligence in art education or during museum visits. Several factors such as art criticism, the cultural structure, belief systems, and economic structure of the related society should be considered in the iconographic analysis. For instance, the painting by the post-impressionist painter Paul Gauguin called “Where Do We Come From? What Are We? Where Are We Going?” (1897-1898) visualizes the artist’s existential concerns (Simmons, 2006). Giotto di Bondone’s “The Last Judgment” (1303-1306) effectively reflects the existential views of a religion. Romantic painter William Blake’s “Urizen” descriptions are also examples of existential intelligence.

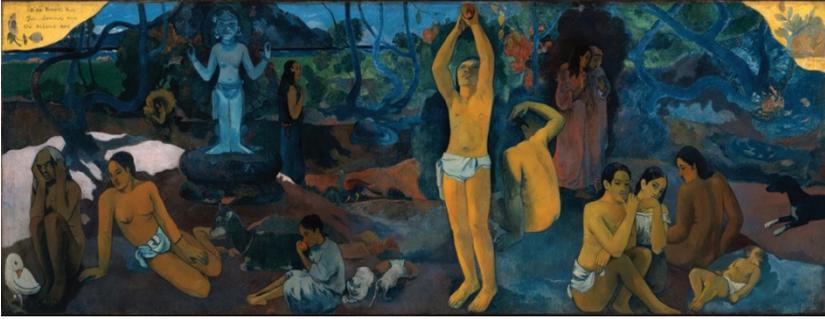


Image 5. Paul Gauguin “Where Do We Come From?
What Are We? Where Are We Going?” (1897-1898)

4.2. A Sample Museum Activity Plan Based on Multiple Intelligences Theory

AIM: Introduction to the cultures of various civilizations based on the artifacts exhibited in Istanbul Archeology Museum.

Sub-Aims

- Establishing a connection between the past and the present.
- Knowledge on the museum collection.
- Introduction of the civilizations that produced the artifacts in the collection.
- Raising awareness about the significance of Archeology Museum and Osman Hamdi Bey in Turkish museology.

GRADES: 9, 10, 11, 12

Achievements: (Based on visual arts course 2018 curriculum [9, 10, 11, 12] achievements.)

- Explains the developments in Turkish and global musaology.
- Explains the value and significance of artworks in the transfer or culture.
- Raised awareness on national museums.
- Raised awareness on different cultures via museums and art galleries.
- Analyzes educational functions of the museums.
- Produces original Works based on the artworks in museums and art galleries.
- Exhibits textual and visual resources on museums and art galleries.

PRE-VISIT ACTIVITIES

Duration: 1 course hour

Material and Equipment: PowerPoint presentation, worksheets

Methodology, technique and strategies: Instruction and presentation

General information about Istanbul Archeology Museum is provided. A PowerPoint presentation that includes general information about how the museum was established, brief history and the role of the museum in the development of Turkish museology, Osman Hamdi Bey and the museum collection is presented. On the museum plan, the locations of the museum halls and the halls that would be visited during the visit are indicated (Halls 8 and 9, which include the artifacts from Sidon Necropolis, and Halls 13-20, which include Greek-Roman Period sculptures). Worksheets could be used along with the PowerPoint presentation to facilitate student participation. For example, Worksheet 1 and Worksheet 2 below could be used to raise student interest and provide certain information before the visit.

After the museum information is provided, students are divided into groups. The groups are assigned various tasks during the museum visit. These tasks are developed to activate different intelligence types. For example, the first group is assigned a task about the ancient Greek poet Sappho, whose bust is exhibited in the museum, and they are asked to conduct research on the poetry and literature of the ancient period to promote linguistic intelligence. The 2nd group is tasked to research ancient music and dance, to discover ancient musical instruments such as lyre and kithara, and to reflect on ancient dances based on dance reliefs to promote musical intelligence. While the 3rd group was asked to explore the floral motifs on the sculptures and reliefs and to research their symbolic meanings to promote the naturalistic intelligence. The 4th group is assigned to investigate supernatural creatures such as griffins, sphinxes and centaurs to discover the symbols assigned to animals in ancient cultures to promote the naturalistic intelligence. It was ensured that the students in the groups are in communication and collaboration when performing the assignments to promote social intelligence. Voluntary group assignments should be ensured, and the number of groups should be reduced or new groups should be added based on the number of volunteering students.

Table 1. The Groups and Tasks Assigned Before the Museum Visit

	TASK	ASSIGNMENT	PRE-VISIT	POST-VISIT
GROUP 1	Find the poet	There is a bust of a female poet in the museum. Find it and take a photograph.	Which poets you know? Which is the favorite poem of this poet? What are the genres of poetry? What kind of poems were written in antiquity? Discuss with group members.	Share the knowledge you acquired with other groups. You may use a PowerPoint presentation, poster or brochure. You may read a poem you found. You may conduct a drama activity.
GROUP 2	Discover antique music and dance	Examine the Antique Greek sculptures and reliefs, find the musical instruments of the period and take pictures. Collect clues about the type of music that the people of the period danced to.	Reflect on the musical instruments you know. What are the musical genres? What are the types of dance? Brainstorm about the musical genres and dances of antiquity	Share the knowledge you acquired with other groups. You may use a PowerPoint presentation, poster or brochure. You may organize a small dance recital with the music of the period. You may conduct a drama activity.
GROUP 3	Find the plants	Find plant motifs on Greek sculptures and reliefs and take pictures and research their symbolic meanings.	Can plants have symbolic meanings? Reflect on this question within the group and find everyday examples for symbolic plant motifs. Research symbolic plants in Turkish culture (e.g., ear of wheat symbolizes agriculture, pomegranate symbolizes abundance).	Share the knowledge you acquired with other groups. You may use a PowerPoint presentation, poster or brochure. You may create a crossword puzzle.
GROUP 4	Find supernatural creatures	Identify the supernatural creatures in the museum, take pictures, and research what they represent.	Do people believe in supernatural creatures today? Where do we see these? Why could people have imagined supernatural creatures? Did people believed in supernatural creatures and super heroes in antiquity? Investigate	Share the knowledge you acquired with other groups. You may use a PowerPoint presentation, poster or brochure. You may create a crossword puzzle.

The group tasks and assignments are presented in Table 1. After the groups are formed, information about the museum rules that students should obey while performing their tasks and visiting the museum is presented. The rules for taking photographs in a museum are explained.

MUSEUM RULES

- Do not forget to take the materials you need in the museum.
- Do not touch the works and pedestals exhibited in the museum and do not write on them.
- No not make noise.
- Listen carefully and ask your questions the teacher and museum education staff (if available).
- Pay attention to the warnings in the museum.
- Write the information you want and consider necessary and draw in your museum guide.
- Ask your questions to the teacher or museum staff.
- Do not eat anything in the museum.
- Do not litter.
- Do not take flash photography (Buyurgan and Mercin, 2005, s.174).

WORKSHEET 1

WHO IS OSMAN HAMDI BEY?

Examine the clues about the professions of Osman Hamdi Bey, who had a versatile professional career, and discuss your estimates with your peers and write these in the spaces provided below.

1.



2.



3.



4.



WORKSHEET 2

- Greek Mythology includes verbal stories about Greek gods, goddesses, and heroes.
- There were 12 primary gods that included 5 females and 7 males, and it was believed that they lived on Mount Olympus.
- Zeus ruled the sky and was the supreme ruler of all gods, find out what the others ruled?

Poseidon



Hades



Apollo.....



Ares.....



Artemis.....



Athena.....



Aphrodite.....



Hermes.....



Hera.....



MUSEUM ACTIVITIES



Image 6. Sarcophagus of the Great Alexander

Duration: 2 class hours

Material and Equipment: Worksheets, pencil, museum brochure, museum floor plans, camera.

Methodology, technique and strategies: Review, lecture, group discussion, brainstorming, research, photography.

- During the first 30 minutes, the history of the museum building is instructed. General information on the collection is provided and the halls 8 and 9 are visited.
- Then children gather in front of the Sarcophagus of Great Alexander. The following questions are asked about the sarcophagus, and students are allowed to reflect on the artifact and establish causality to promote logical intelligence.
 1. What do you think this could be?
 2. Whose is it?
 3. Which material is used in construction?
 4. Which story do the reliefs on the sarcophagus tell?

5. Why was a war scene reproduced on a sarcophagus?
 6. Why was a chase scene reproduced on a sarcophagus? What are the similarities between the game?
 7. Why was it called the sarcophagus of Great Alexander?
 8. Who was Great Alexander? Why was he called 'the great'?
 9. Are there other similar sarcophagi in the museum?
 10. Are different sarcophagi in the museum?
- Finally, why such a sarcophagus was built for a dead person is discussed. The burial rituals of the period and the beliefs are discussed.
 - In the second part of the museum visit, students are allowed to complete the group tasks described in Table 1 and to freely move around the museum for at least 30 minutes (Halls 13-20).

POST -VISIT ACTIVITIES

Activity 1: Fulfillment of group tasks

Duration: 1 class hour

Material and Equipment: Worksheets, pencil, projector, costumes, music player, puppets, etc.

Methodology, technique and strategies: Presentation, drama, storytelling, etc.

After the museum visit, each group conducts a 10-minute presentation based on the data they collected for the task assigned for the museum visit. During the presentation, the students are counseled about the employment of the techniques and methods such as reading poetry, drama, musical performance, dance, storytelling, PowerPoint presentation, brochure and poster development, animations with photos or videos. Thus, a class hour is planned where all students could learn in collaboration, participate actively, which would contribute to various intelligence profiles.



Image 7. Puppet show

Students are asked to create an artwork based on the experiences and acquired knowledge during the museum visit. Thus, visual/spatial, bodily and interpersonal intelligence types are promoted. Artistic works may vary based on the course duration, student preferences, and the school facilities. Artistic activities that could be suggested after the visit to the Istanbul Archeology Museums are listed below.

Activity 2: Relief

Duration: 1 class hour

Material and Equipment: Clay, plate, modeling pencils.

Methodology, technique and strategies: Three-dimensional work, narration, question-answer method.

- The students are asked what they saw in the reliefs on the Sarcophagus of Alexander the Great in the museum. The significance of Osman Hamdi Bey and Sarcophagus of Alexander the Great is instructed again. Reliefs are created based on the reliefs on the sarcophagus with clay and modeling pens.
- Reliefs are based on design elements and principles.

Activity 3: Cartoon

Duration: 1 class hour

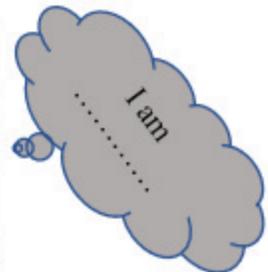
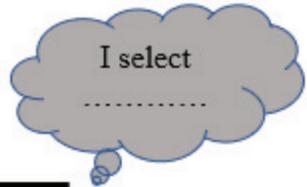
Material and Equipment: Paper, all types of paint.

Methodology, technique and strategies: Drawing, collage, storifying.

Students develop a story based on the knowledge they learned during the groupwork or the artworks they liked in the museum and create a comic book based on this story. If they desire, a preliminary study similar to Worksheet 3 could be conducted to give ideas.

WORKSHEET 3

Alexander the Great is preparing for a campaign and he needs heroes with superpowers to strengthen his army. But he can only take one with him during the expedition. All heroes depicted below want to join the expedition, find out who they are and help them convince Alexander.



Activity 4: Museum building design

Duration: 1 class hour

Material and Equipment: Paper, all types of paint.

Methodology, technique and strategies: Two-dimensional work.

- The building of the Istanbul Archeology Museum was inspired by the Crying Women’s Sarcophagus. Thus, the students are asked to review the museum building and the Crying Women’s Sarcophagus. Students are asked to design a museum building based on an artwork they liked in the museum collection.



Image 8. Istanbul Archeology Museum

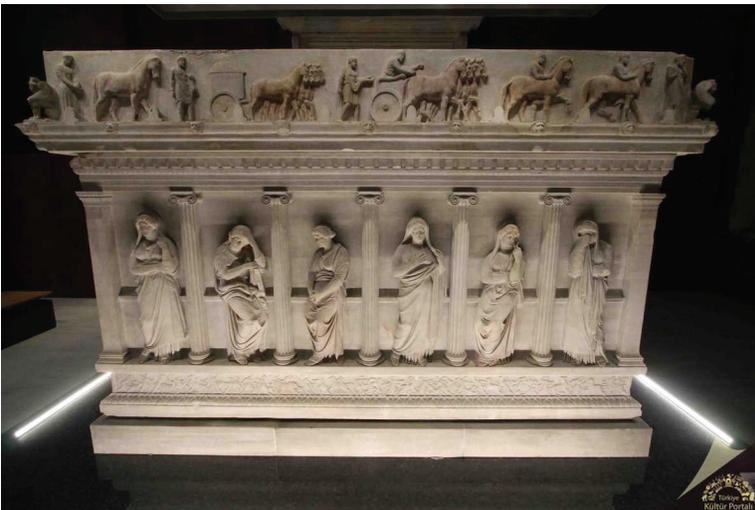


Image 9. Istanbul Archeology Museum “Sarcophagus of the Crying Women”

5. Conclusion

The above-mentioned museum visit was planned based on the constructivist approach and the multiple intelligences theory. Thus, the activities that aimed different types of intelligence were planned to allow the students to participate in personal learning experiences during the museum visit and they were guided to processes such as research-discussion-presentation. Although the above-mentioned activity plan is only an example, it is flexible enough to be substituted based on the interests and desires of the target group. As students take responsibility for self-learning, the teacher should guide the process. The following are recommended for the achievement of museum visit objectives.

- Active use of the allocated time is essential.
- Due to the attention span of the participants, every piece in the museum collection should not be examined, the most important pieces that could lead to a general understanding about the museum should be selected.
- Extensive information would make the visit boring and also prevent the expected benefits of the visit.
- Independent of the age of the visitors, activities that would promote excitement and curiosity, raise their interest should be planned.
- A framework, where visitors could associate new knowledge with prior knowledge based on their daily life experiences, should be determined. New knowledge should be built on prior knowledge, similar to putting together the pieces of a puzzle, for permanent learning.
- Museum activities should reinforce the knowledge acquired in the museum.
- When selecting the artworks that will be reviewed in the museum, different intelligence profiles should be addressed.
- Activities that would be conducted during museum visits could stimulate more than one type of intelligence. Thus, in museum visit planning, the number and difficulty of the activities should carefully be determined and a different event for each type of intelligence should not be planned.
- The activities should be adequate for the age, physical and cognitive development levels of the visitor group, as well as the physical conditions of the museum. When necessary, certain activities could be conducted in the classroom or a workshop, if available.

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- Image 1. Burdur Archeology Museum “Dancing Girls”. (From the archive İnci Bulut Kılıç)
- Image 2. Bodrum Archeology Museum “Amphorae”. (From the archive İnci Bulut Kılıç)
- Image 3. Hatay Archeology Museum - posing activity. (From the archive İnci Bulut Kılıç)
- Image 4. Aphrodite Archeology Museum “The Four Seasons Sarcophagus”. (From the archive İnci Bulut Kılıç)
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Image 7. Puppet show. (From the archive İnci Bulut Kılıç)

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www.kulturportali.gov.tr/turkiye/istanbul/gezilecekyer/istanbul-arkeoloji-muzeleri

Image 9. Istanbul Archeology Museum “Sarcophagus of the Crying Women”.

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Worksheet 1. Images 1, 2 and 3 number used in this worksheet downloaded on

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CHAPTER 5

MUSEUM AND DISABLED INDIVIDUALS*

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1. Introduction

In developing societies, museums are no longer spaces where certain artifacts and objects are protected and stored but that are visited by individuals of ages where these individuals could socialize and learn with pleasure. In addition to the collection, documentation, protection, and exhibition functions of museums, the education function is prioritized globally. Currently, the museums are considered informal education spaces that allow learning by doing and living. Thus, museum activities and programs are employed effectively in the education of children, young adults, and adults. Museums are accessible by visitors from all social segments, and also serve visitors with different types of disabilities through special programs developed based on their needs that further improve physical accessibility. In this chapter, the significance of learning in the museum for individuals with disabilities, and the access and educational programs and services that museums offer for visitors with various disabilities in Turkey and the world at large are discussed.

2. The Significance of Learning in a Museum

A museum is often a unique learning environment where unknown artifacts and ideas are discovered in disciplines that freely intersect. Due to their unique

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properties, museums are exciting and could play an educational role. In the development of learning spaces in museums, the unique qualities, and special needs should be prioritized based on an effective education method (Caston, 1989).

Learning in museums engages both the mind and the body in creative and successful activities. The power of museum education should not be questioned, as learning through the collections improves self-esteem with personal achievements and makes the individual proud. Today, one of the strongest claims made by museum educators is the value of sensory learning. As museum educators developed powerful teaching methods based on museum collections, the senses of touch, smell, hearing, and taste sensations were included in museum activities. The learning paths that include concrete approaches such as ideation, examination of the artifacts, and opportunities to design creative products in response to museum collections are effective in learners of all ages and skills (Hooper-Greenhill, 2007). The senses of touch, smell, hearing, and taste are especially important for individuals with disabilities. These individuals could benefit from the educational functions of museums via the development of instructional methods based on senses.

According to Ambrose and Paine (2012), museum learning includes not only learning facts but also experiences and emotions. It is the most enjoyable and easiest thing we all do with others. It is also important to remember that learning is a social experience for most individuals. Furthermore, the employment of various learning techniques is recommended in museums, and the organization of educational programs that include kinesthetic, literacy, and audiovisual features would appeal to visitors with various learning styles.

The impact of the social environment on learning is known well. The museums could play a key role in the social development of an individual by providing global, social, and cultural interaction and communication opportunities as social environments. Museums have an indirect role in the development of skills, attitudes, and values (Paykoç, 2014). Since individuals with disabilities experience participation problems in social environments, it was suggested that it would be easier and more effective for them to learn and socialize in museums.

We can suggest that the combination of the museum and education is justified with the learning outcomes. These outcomes include learning by doing, motivation for creativity and curiosity, permanent learning the transfer of abstract knowledge into concrete (Artar, 2010). Comprehension of abstract concepts is quite difficult for both adults and children with disabilities. However,

in museums, the artifacts in the collection could be observed and examined on-site and this activity could be supported with adequate educational activities, allowing for permanent learning by transforming abstract concepts into concrete.

Although many people think museums are a place for children to have fun, museum visitors and researchers are aware that entertaining experiences often lead to learning outcomes. Learning knows no boundaries and museums could be considered as a type of learning environment for all visitors. When learning is considered as a process of the development of knowledge, attitudes and values, museums provide an ideal and provocative learning environment. The child's prior knowledge and personal traits would determine the child's preferences. As soon as the child is introduced to any idea, artifact or experience in a museum, the learning process begins. The first contact with an artifact in a museum is just the beginning; learning extends over a long period of time and museum activities are important in the ongoing learning process (Piscitelli, Everett & Weier, 2003).

Museums and galleries provide diverse opportunities for active and iconic participation. They offer new learning approaches with facilities such as exploration rooms, applied exhibitions, movies, interactive videos and drama. New ideas about learning and new theories on the nature of intelligence also offer several opportunities for museums and galleries (Hooper-Greenhill, 1994). Previous studies demonstrated that there is more than a single type of intelligence and each individual's learning style is different. The advances in education and science led to comprehensive educational opportunities that could be offered in museums. Today, almost personalized museum education services have been introduced. Especially due to the inclusion of museums in more intensive school programs, the priority associated with various types of intelligence has increased.

Museum education is different from the education instructed at schools. There are no exams, grades, tests in museum education, and the program is flexible and variable. In learning, joy, having fun, discovering, to try and one-on-one experiences are important. Museum education should employ sensory techniques and methods. Thus, touching, seeing, and checking the artifacts using hands are expected behavior. The museum educator has to raise curiosity, stimulate the imagination and the senses (Onur, 2013). Museums offer a fun way of learning outside of the school facilitating curiosity and enthusiasm. They are extraordinary venues for several individuals and enchant them with diverse collections. Thus, it is very important for the museums to allow visitors of all age groups with or without disabilities to receive adequate and satisfactory services

including physical access and educational activities. Educational activities in museums should be planned well based on the capabilities of individuals with disabilities. Due to their potential, museums are undeniably accepted as effective and permanent learning spaces that could serve various disabilities associated with the five senses.

3. Accessible Museums and Individuals with Disabilities

Museums should be free of access impediments since they offer several experiences that allow us to go beyond who we are, what we can or cannot do. Several features that lead to an accessible space for individuals with disabilities make life easier and adequate for everyone. An individual does not have to be disabled to enjoy access. Thus, the design should be universal. Universal design entails the design of accessible spaces, staff, and systems for the majority of the society. Universal design is a relatively new name for an old idea; it means the development of accessible environments and objects for all, including individuals with disabilities. The museum needs to design an exhibition that all visitors could experience to reach a wider audience with or without disabilities (Hein, 1998). Thus, all museums should ensure physical accessibility first.

People of all ages and all walks of life could experience various forms of physical or mental disability permanently or temporarily. Thus, museums should be accessible and hospitable for everyone, and the needs of disabled individuals should be considered in the design. Museums need to develop policies and practices for individuals with disabilities. Disability legislation is different in each country. The museum should be consistent with the local legal framework and meet the legal requirements (Ambrose & Paine, 2012).

Countries have introduced certain standards in the form of laws to allow access for individuals with disabilities to buildings, landscapes and social spaces. In the Americans with Disabilities Act (ADA), certain standards were introduced for the museums in the United States in 1990. This enforces the standards set for “Accessible Design” in the analysis of the existing museum buildings and all-new museum buildings in the country. Further specialized modifications could be requested such as the construction or replacement of public spaces in the building, such as the introduction of ramps, elevators, steps, telephones and toilets, as well as repositioning the screens, installing assistive listening devices, “speaking” screens or designing alternate displays and exhibits. Furthermore, the federal laws set certain standards for museum buildings. In 1968, the Architectural Barriers Act (ABA) was legislated. The law ensures that facilities

will be accessible based on the minimum standard of accessibility in the design, construction or modification of museum buildings (Salmen, 1998).

The Disability Discrimination Act was adopted in the United Kingdom in 1996 that provided community services for disabled individuals and prohibited discrimination. Thus, further legislation ensured easy physical access for individuals with disabilities in the museums. Furthermore, the government's efforts continued on exclusion and to improve education and asked the museums to assist all for access (Merriman, 2000).

In Turkey, the first legislation for the disabled was enacted in amendment 1 to zoning law no 3194 in 1997, and stated that the Turkish Standards Institute standards should be adopted in zoning plans and urban, social, and technical infrastructure and buildings to ensure that the physical environment is accessible and habitable by the disabled individuals (Zoning Law, 1997).

Museums must be accessible from different sides for all visitors after it is ensured that both the museum building and landscape are accessible. The accessibility of museums has been discussed based on three aspects: physical, communicational and attitudinal. Physical access means the removal of obstacles that prevent access. Access to communication means the provision of assistive hearing and visual aid services to help people to communicate. Attitudinal access means sensitivity to human diversity. And only when these three types of access are provided, individuals would feel good and respected (Salmen, 1998).

In museums, participation in educational activities is as important as physical access for disabled visitors. Also, museum staff would ensure adequate and regular access of the visitors with disabilities to these services. The staff should be trained about the types and requirements of disabilities, they should be open to communication, and could adopt the important task of implementing the disability policies of the museums. Falk and Dierking (2013) stated that museum personnel should master the principles of "Universal Design" that advocates the construction of environments that are naturally accessible to all individuals, regardless of their disability. To design effective and beneficial museum experiences, a deep understanding of the various visitor attributes is required: How do people occupy and respond to the physical space? How is the need for visual, verbal and written information balanced? How are the exhibitions, interpretative materials, presentations and media utilized to meet individual requirements? What are the physical or intellectual disabilities of the visitors.

Working with individuals with disabilities could be a good experience for the museum staff. However, staff training is required to provide adequate and

sensitive assistance for the visitors. The museum should indicate the assistance available for visitors with disabilities, provide promotional material, and information about access and accessibility. Every museum should aim to create a universally accessible environment and provide equal opportunities for all individuals to utilize the museum services. In most cases, a museum accessible by individuals with disabilities means higher facility standards for all visitors. There are four steps the museum management should take to develop programs to improve the institution: Connecting with people with special needs to make them a part of the museum, determining their needs in meetings conducted with the visitors, have the courage and determination to take positive steps towards supporting individuals with special needs, and finally, to demonstrate the outcome of the learning process (Ambrose & Paine, 2012).

Museums should meet certain conditions in terms of the physical environment, presentation and exhibition, programs and social assistance and education in their action plan before disability policy notification. All physical spaces in and out of the museum should provide a safe and adequate environment. There should be a park for the disabled. The exhibition showcase displays and labels, fonts and sizes, colors should be adequate and positioned accurately. Visual, auditory or sensory aids should be employed to assist visitors with physical, visual, auditory or intellectual disabilities. The exhibition policies and implementation should be sensitive to social needs. The museum should collaborate with artistic and social welfare organizations. The museum should determine educational criteria. Whether programs are integrated into current policies or they are stand-alone, an action plan should be relevant to the school curricula, community policies and other requirements (Keen, 1991). Thus, certain prominent museums in the world and all private and state museums supervised by the Ministry of Culture and Tourism in Turkey are discussed based on available access and educational activities for disabled visitors in the next section.

3.1. Educational Activities and Access Facilities in the World Museums

In this section, educational activities and access facilities offered for individuals with disabilities in various renowned museums around the world are discussed, including the available collections, services and programs in these museums. The following museums are included: Royal Academy of Arts (London), Guggenheim Museum (New York City), Thyssen-Bornemisza Museum (Madrid), Vienna Art History Museum (Austria), National Museum of Modern and Contemporary Art (Seoul), Picasso Museum (Barcelona), Strozzi Palace

(Florence), Metropolitan Museum of Art (New York), Museum of Modern Art (New York), Australian Museum of Contemporary Art (Australia), British Museum (London), Smithsonian Institute (Washington), American Museum of Natural History (New York), Van Gogh Museum (Amsterdam), Baltic Center for Contemporary Art (Gateshead), and Tate Modern (London).

The Royal Academy of Arts (London) offers events for visitors with visual, auditory, physical, and intellectual disabilities and with autism and dementia. Furthermore, exhibitions, where disabled artists can display their artwork and applications, are organized. InStudio is an art workshops program designed for adults with disabilities or groups that work with adults with disabilities. The workshops focus on a selected exhibition, and under the leadership of the two artist-educators, individuals in the groups are assisted to research and respond and guided to create their artwork based on the themes and techniques in the exhibited works. Each workshop is designed to meet the access requirements and preferences of the group. The museum also hosts students with special educational needs or disabilities in workshop programs. These workshops are designed to meet the requirements of each group and include multi-sensory exhibition tours and artistic creation sessions. These workshops are sponsored by Special Education Access and Community Volunteers and other foundations. Art workshops and exhibition tours are offered throughout the year for families with special educational needs and children with disabilities. Conferences, daily lectures and discussion sessions, workshops and panels are organized. Various presentations and workshops are organized by the teachers of students with special educational needs, art educators, disability specialists and gallery and museum professionals. Furthermore, conferences are organized for teachers, gallery and museum professionals, counselors and art educators disperse the love of arts among children and young adults in need of special education and allow them to realize their creative skills. Workshops are organized in the creative studio where children with autism disorder could participate in interactive sensory activities with their caregivers, parents and siblings. In another workshop, sessions are organized with adults to reveal new ideas and demonstrate practical workshop techniques with clay to allow the children with intellectual disabilities and autism to discover the senses. Also, workshops are organized to create positive differences in the behavior of children with autism spectrum disorder using music and movement for teachers, counselors and museum professionals. Furthermore, sensory maps and visual stories could be downloaded from the museum website. Lectures by the experts such as curators and artists are streamed as podcasts on the museum website. The museum

provides an access guide, disabled parking lot and bathrooms. Special visits are organized in early morning hours for visitors with physical disabilities and wheelchairs are available for rent. Audio descriptions, tactile tours, Braille and large print guides are available for visually impaired visitors, and service dogs are allowed in the museum. Transcripts of audio guides, induction loops, and tours in sign language are organized for the hearing-impaired visitors. Their service dogs are also allowed to enter the museum. Art sessions, multi-sensory tours, coffee and chat sessions are organized for visitors with dementia. Also, painting, printing and creative workshops are organized for groups with disabilities and other groups (Royal Academy Of Arts, 2017).



Image 1. Royal Academy Of Arts

The Guggenheim Museum (New York) allows service animals. Wheelchairs are available in the museum. Special elevators and bathrooms are available for disabled visitors. On the museum's website, the subway and bus lines and transit routes with access facilities for the disabled are listed. Audio descriptions and tactile tours, large print and Braille guides are available for visually impaired visitors. Multimedia guides could also be rented in the museum. For the hearing-impaired, the museum is equipped with induction loops compatible with T-coil. The multimedia guide devices in the museum are compatible with the T-coil and include transcripts about all tour stops. Programs and tours are organized also in American sign language. Furthermore, the free multimedia guide application includes American sign language videos with open subtitles for visitors with hearing disabilities. These videos could also be accessed at the museum website. A 'social narrative guide' is developed for families with children with an autism spectrum disorder. The guide includes images and short descriptions of the spaces that await the child during the tour. The social narrative guide could be downloaded from the museum website. Programs that support the special

education student curricula are available in all museum tours. Guided school tours can be organized (Guggenheim Museum, 2017).

The Thyssen-Bornemisza Museum (Madrid) allocates resources and organizes activities for the visually impaired, the deaf, individuals with cerebral palsy, down syndrome and autism, prisoners, homeless, immigrants, women exposed to violence, and people at risk of social exclusion. Also, several activities designed in collaboration with healthcare professionals are organized for the social treatment of individuals with psychological disorders to ensure real and effective interaction and change (Museo Thyssen-Bornemisza, 2017).

In the Vienna Art History Museum (Austria), a parking lot and a bathroom are available for the disabled. Wheelchairs could be rented in the museum. There is a separate entrance for barrier-free access. The cabin width of the elevators is also specified. Guided tours are organized for all disability groups. Comprehensive tours are organized especially for visually impaired visitors. Visually impaired visitors could visit the masterpieces gallery alone or with the art educator. Tours are organized where the visual, tactile and sound elements are activated in four works in the gallery. A museum book was developed about the exhibited pieces. This book is available in CD and Daisy format. The electronic book could be accessed online or purchased at the museum store for a fee. The Austrian “Museum Book” application is one of its kind. Furthermore, workshops that help restore past memories are organized for visitors with dementia. In a relaxed atmosphere, visitors can freely express their feelings and ideas and produce artwork in the workshop (Kunsthistorisches Museum Wien, 2017).

The National Museum of Modern and Contemporary Art (Seoul) organizes exhibition-based museum visits and creative art workshop programs for families with children with an autism spectrum disorder. Programs that include museum visits and creative art activities associated with the museum collections are organized for individuals with developmental or learning disabilities. Furthermore, trips to the outdoor sculpture park and creative art workshops are organized for individuals with dementia and their families. Braille books that describe the museum videos for visually impaired visitors are available (National Museum of Modern and Contemporary Art Seoul, 2017).

The Picasso Museum (Barcelona) organizes the “Picasso in Memory” workshop for the elderly. The workshop aims to strengthen the cognitive capacity of the participants, as well as to help maintain healthy neurological performance and to encourage and develop social relationships. Special tours are organized for all disability groups with advance notification and when a guided tour is requested. Regular access is provided for visually and hearing-impaired visitors, their families and friends. There are one-hour paid tours of permanent and temporary exhibitions for groups of a maximum of 15 visually impaired visitors on the third Thursday of each month. Advance reservations are required from the “educational services unit” in the museum. Picasso workshops for all are also adapted for children with cerebral palsy. Easily accessible special exhibitions are organized for all. Furthermore, participation and research-based workshops are organized for long-term inpatient children. The products of these workshops are exhibited in hospital rooms (Museu Picasso, 2017).

Strozzi Palace (Florence) developed a project for children with an autism spectrum disorder. In the project, exhibitions and workshops were organized by museum educators. Another project was introduced in 2011 for visitors with Alzheimer’s disease. The project aimed to allow these individuals to express themselves through art. Both parents and nursing homes were included in this project. Exhibitions and workshops were organized for visitors with Alzheimer’s, their families, caregivers and nursing home employees. The museum also has special tours for visitors with psychological disorders and visitors with physical and intellectual disabilities (Palazzo Strozzi, 2017).

Audio guides for visual and auditory impaired visitors at the Metropolitan Museum of Art (New York). T-coil compatible headphones are available for the hearing-impaired visitors. The transcripts of selected tours in large print are available at the information desk. The museum also organizes group tours for disabled visitors. The tours could be adapted for students with special needs in school groups. Further, “social narrative guides” were developed to prepare disabled individuals for probable situations during their visit to the museum. It can be downloaded on the museum website. Art workshops are also organized in addition to audio narratives and tactile tours for visually impaired visitors. Furthermore, the museum published a book titled “Art and Alphabet: A Tactile Experience” for the visually impaired. Various workshops are organized for visitors with developmental and learning disabilities and autism spectrum disorder that allow the participation of their parents and friends. In these workshops, the participants discover various themes in each session using tactile and artistic applications. Also, programs are organized for the above-mentioned

visitors guided by music teachers and music therapists. Visual checklists, visit tips, social narrative guides are available for different exhibitions in the museum, sensory maps, interactive maps and maps that display temperature changes are available in pdf format to allow children, young adults and adults with an autism spectrum disorder to visit the museum with their families without any problems. These maps can be downloaded on the museum website. Furthermore, interactive multi-sensory workshops are organized for visitors with dementia, their caregivers and families (Metropolitan Museum of Art, 2017).



Image 2. Metropolitan Museum of Art

In the Museum of Modern Art (MoMA, New York), wheelchairs are available for individuals with physical disabilities. Bathrooms and elevators for the disabled are located throughout the museum. Several activities and resources are organized for disabled K-12 children. In collaboration with their classroom teachers, MoMA plans programs that examine the needs, strengths, interests of each child and facilitate full participation. Teachers and parents can plan their visits with the “Social Guide” developed for MoMA training programs. Also, group programs are available for schools. Audio museum guides for hearing-impaired visitors are T-coil compatible and all audio program transcripts are available at information desks. Tours are organized in sign language. The museum is equipped with induction loop systems and infrared sound amplification systems. Foreign language movies are screened with subtitles. Braille and large print guides are available for visually impaired visitors. Audio descriptions and tactile tours are organized. Special activities and resources are available for students with auditory, visual, physical and developmental disabilities. Discussion sessions, exhibition tours and various workshops are organized for individuals with dementia and Alzheimer’s disease, their families and caregivers. Visitors with physical disabilities can access the entire museum. Electric wheelchairs are also allowed in the museum. Furthermore, videos that provide information about

the planning and implementation of artistic applications and discussion sessions are available for individuals with Alzheimer's disease, videos that describe the museum activities and how to participate in these activities are available for all disability groups. The museum ensures access to the museum website for all individuals (The Museum of Modern Art, 2017).

In the Museum of Contemporary Art (Australia), tours, workshops, educational programs are organized for all disability groups, their families, caregivers and employees of relevant institutions by expert educators. Promoted within the "Art for Everyone" initiative, the Bella program was introduced in 1993 for individuals with disabilities or special access requirements. The aim of the program is to connect individuals with disabilities of all ages with contemporary art and provide creative learning and artistic work opportunities. Creative learning and access programs are instructed by an artist educator team in the galleries and at the National Creative Learning Center. Thus, each program meets the access requirements of disability groups. Programs groups are organized for different within the Bella program. This program is free and fully accessible. For example, Bella Family includes the multi-sensory Bella Room, an interactive setting created to engage and inspire individuals who require sensory experiences using the works of contemporary artists. Bella Room could be visited by all family members to explore the interactive gallery, creative studios and conduct multi-sensory and interactive activities with artist-educators. All activities are tailored to the interests and requirements of children with disabilities and their parents. Group Bella provides a creative and fun learning environment for children and young adults with multi-tactile and interactive tours. House Bella is a program that aims to stimulate the five senses and is organized with collaboration between the Sydney Opera House and the Museum of Contemporary Art. It includes an entertaining tour at home, a lunch at Circular Quay, and a distinctive and creative open-air trip. After lunch, it is possible to participate in a gallery exploration tour with artist educators and then attend art production sessions at Creative Studios in the National Center for Creative Learning. House Bella programs are tailored for student interests, learning stages and access requirements. Bella encourages teachers to explore new creative learning strategies in collaboration with artist-educators, participate in panels and discussions,

guest lectures and workshops in a two-day forum jointly hosted with the Sydney Opera House. The program aims to develop creative art instruction techniques by exchanging classroom implementation ideas. In the program for students, a pdf manual that includes sensory maps, precautions for the visits and after the visit, and required material for the activity, etc. is provided. Numerous workshops are organized that mostly include artistic practices (Museum of Contemporary Art Australia, 2017).



Image 3. Museum of Contemporary Art Australia,
“Auslan tour at the Art is for Everyone weekend 2019”

The British Museum (London) offers a free museum plan, guides for certain temporary exhibitions and selected galleries in large print for visually impaired visitors. Tactile tours are organized in several galleries. Magnifying glasses could be rented from the museum for a deposit fee by visitors with low vision. Furthermore, the museum collaborates with schools for individuals with special needs. For this purpose, a guide was developed. The guide, in which the basic guidelines to plan a trip to the museum for students with disabilities are detailed, could be downloaded on the museum website. There are designated study areas for students with special education needs (SEN). Inclusive learning opportunities are provided for all young visitors, as well as students with visual, auditory, intellectual and physical disabilities. In addition to tactile tours for all disability groups, multisensory activities are available for students in the Ancient Greece, Egypt, Roman Britain, Viking Britain or Medieval England galleries. Group tours are organized for students to full-access galleries and workshops, for up to ten

individuals. Study notes for different periods including Ancient Greece and the Middle Ages are also available on the museum website. Multisensory technological presentations are conducted for SEN students on the smartboard. In digital workshops, presentations that include movies, images and sounds recorded by the students in the museum are developed to create a digital screen (British Museum, 2017).



Image 4. British Museum “Deaf-led British Sign Language tour of the Hokusai exhibition”

The Smithsonian Institution (Washington DC) is a large organization that includes 19 museums and the National Zoo. Access map for people with disabilities could be downloaded on the museum website. Audio descriptions of the exhibition videos are available for visitors with visual disabilities. Tactile and audio tours are organized in the museum upon request. Smithsonian manual and maps are available in Braille and large print. Comprehensive educational activities are available for all disability groups and general visitors at the Smithsonian Institution. Certain files including tips about museum visits could be downloaded on the museum website. Pre-visit stories were designed to help prepare the children for possible situations during their visit. It includes information such as the museum rules, safety information and routines. Museum tips include all necessary information for families. Information about the bathrooms, cafes, loud spaces, etc. that may bother disabled individuals or families is clearly mentioned (Smithsonian Institution, 2017).

The American Museum of Natural History (New York City) is committed to the accessibility of all facilities, exhibitions and services. The museum offers various programs and resources for people with disabilities and their families. Not

only educational and physical access is provided, but also the museum updates its website and resources based on the Web Content Accessibility Guidelines for disabled individuals. Tactile guides are available in permanent collections such as the Discovery Room and Planet Earth. There are tactile objects in certain special exhibitions as well. Certified service dogs are allowed in the museum. Braille signs and audio signals are available in museum elevators. Scientific sensory tours are available with trained museum guides for the visually impaired with reservation. These tours include audio descriptions and touching the objects is permitted (American Museum of Natural History, 2017).

The Van Gogh Museum (Amsterdam) provides priority entrance rights to visitors with disabilities. There is a reserved parking lot for disabled individuals right in front of the museum and a waiting area. Visitors who cannot visit the museum individually are allowed to be accompanied by a companion free of charge. Their companion is provided a free ticket and a multimedia guide. Service dogs are permitted with an adequate harness. There is a large print booklet with information on the museum and exhibitions for the visually impaired. Floor plans are available on the website and at the museum information desk. Bathrooms for the disability groups are located on the ground floor. Visually impaired individuals could attend an interactive program called “Feeling Van Gogh” with their friends, family members and caregivers, and they can feel the “Sunflower” with tactile, olfactory, and auditory senses (Van Gogh Museum, 2017).



Image 5. Van Gogh Museum

The Baltic Center for Contemporary Art (Gateshead) organizes guided tours with specially trained museum staff who narrate the exhibitions for visually impaired

visitors. The tour is free with reservation and conducted every first Saturday of the month. Furthermore, a rehabilitation program is organized by the artists for children and young adults with special education needs. The student attends a half-day workshop with a professional artist at the student's school. The student then attends a three half days long workshop at Baltic Center with the same artist that aims at the development of the child's imagination and creativity. Various materials and techniques such as animation, sculpture and collage are employed in the workshop to develop creative skills and experiences. The project aims the expression of emotions through speech and practice, and to develop the confidence, self-esteem and motivation of individuals with disabilities as well as their communication, problem-solving and teamwork skills. The center also offers programs for teachers. The center encourages teachers to participate in a half-day workshop that fosters the skills and confidence to employ contemporary arts as an accessible environment to influence, inspire and motivate students both in and outside of the classroom. The teachers work with artists to learn new creative skills. A contemporary art resource pack is available online. Teachers can participate in exhibitions, promotional tours and workshops (Baltic Center for Contemporary Art, 2017).

Tate Modern (London) allows service dogs to enter the museum. Large print exhibition guides are available for all exhibitions for the individuals with visual disabilities. Furthermore, the exhibition guide is also available on the museum website. Wheelchairs, walkers and scooters are available in the museum for visitors with physical disabilities with reservation. Information and ticket desks for hearing-impaired visitors are equipped with induction loops. Information on the spaces with loud noise and flashing lights are provided on the website for visitors with autism, epilepsy, and potential seizures. Ear protectors are available in the museum for individuals with autism disorder and a quiet room is provided for these visitors. Tactile tours, narrated tours and sign-language tours are available. Information and ticket desks feature colored surfaces and magnifiers, and all exhibits feature large print titles for visitors with dyslexia (Tate Modern, 2021).

3.2. Educational Activities and Access Services in Turkish Museums

In this section, 338 state and 293 private Turkish museums that offer access, projects, and educational services for individuals with disabilities as of 2021 are discussed.

The Turkish museums that provide temporary or permanent education services and access facilities for disability groups include İzmir Archeology

Museum, Topkapı Palace Museum, Istanbul Modern Arts Museum, Hisart Living History and Diorama Museum, Pera Museum, Santral Istanbul Energy and Contemporary Arts Museum, Rahmi Mustafa Koç Museum, Sadberk Hanım Museum, Radio and Democracy Museum, Mask Museum, Ümran Baradan Games and Toys Museum, SEKA (Turkish Cellulose and Paper Mills) Paper Museum, Köstem Olive Oil Museum, Anatolian Civilizations Museum, Sakıp Sabancı Museum, Şehit Cuma Dağ Museum of Natural History, Seljuk Civilization Museum, Ephesus Museum, and Odunpazarı Modern Museum.

İzmir Archeology Museum (İzmir) provides physical access, but educational activities are not available. A sixty-minute long audiovisual electronic guide is available in Turkish, English and German for adults, a Turkish version is available for the hearing impaired, and a 30 minutes long version is available in Turkish for children. Headphone guides are available free of charge at the museum reception (İzmir Archeology Museum, 2017).

Topkapı Palace Museum (Istanbul) provides limited access services for people with disabilities. Visitors and their companions should present their disabled ID cards at the museum entrance to enter free of charge. Disabled visitors were asked to enter the museum at the Hagia Sophia gate. Wheelchairs are available at the museum entrance. There are bathrooms for the disabled. Information is available about the galleries that are accessible by physically disabled visitors. An audio guide is available in multiple languages. A museum handbook is also available. School and private groups can visit the exhibitions and conferences; however, there are no educational services (Topkapı Palace Museum, 2017).

Rahmi Mustafa Koç Museum (Istanbul) provides elevators and ramps in all indoor areas and visitors can visit the museum with wheelchairs, except for certain outdoor sections. Furthermore, wheelchairs can be obtained free of charge in the museum (Rahmi Mustafa Koç Museum, 2017). In 2005, during the Leonardo da Vinci exhibition, a special 24-page dossier was developed in Braille that included information and certain reliefs of the artist's works (Karadeniz, 2010). Furthermore, a design competition was organized for student groups including visually impaired children in the 'Leonardo: Universal Genius' exhibition in 2006, and exhibition labels written in Braille were provided for the students as a printed catalog (Bayam, 2017).

Köstem Olive Oil Museum (İzmir) is a museum without disabilities. The museum was constructed in compliance with the "Red Flag" regulation of the Izmir Metropolitan Municipality (Köstem Olive Oil Museum, 2021). Red Flag is awarded to private or public indoor and outdoor spaces and public

transportation vehicles which are suitable for disabled access after the “Izmir Without Disabilities Conference, 2013 “ organized by the Izmir Metropolitan Municipality for the first time in Turkey (Izmir Without Disabilities, 2021).

Şehit Cuma Dağ Museum of Natural History (Ankara) provides a section specially developed for visually impaired visitors. The section includes artifacts in and out of glass showcases that reflect the history of nature. Braille labels and Braille brochures are available for visually impaired visitors, the galleries are lit well, and labels and brochures are written in large and bold print for individuals with low vision. Furthermore, an audio CD that includes information about the museum and natural history is available. The visually impaired section in the Şehit Cuma Dağ Museum of Natural History is the first permanent collection in Turkey dedicated to these individuals (Şehit Cuma Dağ Museum of Natural History, 2017).

Seljuk Civilization Museum (Kayseri) provides is a perceptible pavement for visually impaired visitors. Furthermore, tactile replicas of works are available for visually impaired individuals and a booklet printed in Braille provides information about the Seljuks (Seljuk Civilization Museum, 2017).

Odunpazarı Modern (Eskişehir) was built based on the access requirements of individuals with disabilities. Wheelchair access is available, elevators are available for all floors and the bathrooms are designed to facilitate the access of disabled visitors. Furthermore, wheelchairs and stools with canes are available at the information desk. A section was dedicated to visually impaired visitors in the ‘my life partner’ mobile application that includes audio navigation and audio descriptions of the artworks (Odunpazarı Modern Museum, 2021).

There is a museum for the visually impaired in the Ephesus Museum (İzmir). One of the antique shops in the lower agora in Ephesus was restored and transformed into a museum for visually impaired individuals and includes two galleries where copies and original artifacts are exhibited (Ephesus Museum, 2021).

The main gate of the Pera Museum (Istanbul) is designed for the access of physically disabled visitors. Disabled visitors and their companions could enter the museum free of charge. Bathrooms are designed for disabled visitors. Pera Education Department organizes guided tours in sign language for the hearing impaired based on the “Barrier-Free Pera” program. In this tour, adults can find information about the Suna and İnan Kırış Foundation collections in sign language provided by a guide. In the education program for individuals with intellectual disabilities, workshops are organized for primary, middle and high school groups. The program includes a guided tour of the exhibitions and

a workshop where the students could produce three-dimensional paintings, collages, designs and clay artworks. Furthermore, hearing-impaired coffee conversations are organized, and the Coffee Break: The Adventure of Coffee in Kütahya Tiles and Ceramics exhibition can be visited with a guide fluent in sign language. The program also includes a discussion on issues relate with the hearing impaired, which is moderated by Dem Association Coordinator for the Relations with Hearing-Impaired (Pera Museum, 2017).



Image 6. Pera Museum

Istanbul Museum of Modern Art (Istanbul) offers special education programs for disadvantaged social groups and children, young adults, and adults with intellectual and physical disabilities. In collaboration with various institutions and associations, the museum organizes education programs based on the special needs of the visitors. In an activity called “Meeting,” an inclusive educational program is available for children and young adults with special learning needs. With the support of young volunteers, high schools, non-governmental organizations and special education schools, activities are organized based on auditory, tactile and visual senses for children with special learning needs. These activities aim to determine their learning tendencies, to reflect their newly acquired knowledge in their daily lives and to contribute to their socialization. A special activity program called “The Color I Touch” was organized for visually impaired children and young adults. In 2018, in collaboration with the Consulate General of Sweden in Istanbul, the Swedish Institute, Human Rights In Psychological Health Initiative and the Association of Women with Disabilities, an “Access to Cultural and Artistic Life for Individuals with Disabilities” panel was organized within the context of the “I access, therefore I am, Istanbul” project in Istanbul Modern. (Istanbul Museum of Modern Art, 2018). The “Words of Art” program, organized for children and young adults

with little or no hearing, included exhibition visits and workshops instructed by experts. Visitors, who visit exhibitions and view the artworks, can produce creative designs, performances and paintings in the “Portraits from Color Shapes, Fantastic Images and Transforming Objects” workshop. The program, available throughout the year, includes visual memory and attention games (Istanbul Museum of Modern Art, 2021). Furthermore, museum entrance and participation in the programs are free for individuals with disabilities.



Image 7. Istanbul Museum of Modern Art “Words Of Art Program”

In the Sadberk Hanım Museum (Istanbul), “SHM Barrier Free” workshops are organized for primary, middle and high school special education students. The groups participate in a guided museum tour and a workshop for an hour, where they create three-dimensional paintings, collages, various designs and clay artworks (Sadberk Hanım Museum, 2021).

Special programs for individuals for auditory, physical, intellectual and visual disabilities were available Sakıp Sabancı Museum (2017b) (2017a) during “Picasso in Istanbul” and the “Grand Master of Sculpture, Rodin in Istanbul” exhibitions.

Museums not only prioritize services for different disability groups but also provide services and organize workshops for disenfranchised groups who cannot afford to visit museums. Santral Istanbul Museum of Energy and Contemporary Arts (Istanbul) introduced a social responsibility initiative called “Suspended Workshop” within the context of “Child Istanbul” workshops, where children who could not afford to participate in other workshops. The aim of the museum is to encourage individuals and institutions to ensure the participation of many disadvantaged children in the “Suspended Workshop” (Santral Istanbul Museum of Energy and Contemporary Arts, 2018).

Anatolian Civilizations Museum (Ankara) developed a special program for students with auditory, visual and physical disabilities. The museum organized education programs for the orphans in the Social Services Child Protection Institution system, children at correctional institutions, homeless children and women who live around Ankara Castle that promote cultural awareness (Karadeniz, 2010). Furthermore, education programs were organized for visually impaired students since 2002. Some artifacts in the collection were replicated to allow the students to touch them. These students also attended practical education workshops (Buyurgan & Demirdelen, 2009).

Apart from physical access and education services for disabled individuals, the museums conduct temporary or permanent projects in collaboration with municipalities, social aid organizations, public and private institutions, students and volunteers. In the following section, these joint projects are discussed.

Istanbul Metropolitan Municipality and Istanbul Development Agency aim to improve the accessibility of social life areas for individuals with disabilities in the “Accessible Tourism, Barrier-Free Istanbul II” project developed within the scope of the “Global Tourism Center Istanbul Financial Support Program”. The project included replication of the artworks in 4 museums, “Adaptation to Social Life” education for 250 individuals, promotional films, technical access reports, sign language education for 200 individuals, identification of access capabilities in public institutions, digital accessibility maps, disabled card check-in system in museums. The project activities spanned 21 museums, 8 libraries, 5 mosques and palaces (Accessible Istanbul, 2014).

Hisart Living History and Diorama Museum (Istanbul) hosted special education and rehabilitation center students within the scope of the social responsibility project implemented in 2016. Museum entrance is free for disabled individuals and their caregivers (Hisart Living History and Diorama Museum, 2017).

A series of activities were conducted with individuals with visual disabilities within the context of “Barrier-free Konak Days” in the Radio and Democracy Museum in collaboration with Izmir Municipality (Radio and Democracy Museum, 2017), individuals with auditory disabilities at the Mask Museum (Mask Museum, 2017), and individuals with Down syndrome at the Ümran Baradan Game and Toy Museum (Ümran Baradan Game and Toy Museum, 2017).

SEKA Paper Museum (Kocaeli) and Genç İzmitliler Platform organized the “No-Barriers in Sharing Life” event with the participation of 160 disabled

individuals and 25 educators. The event included presentations for special education students (SEKA Paper Museum, 2021).

Other educational projects for disabled individuals organized by the museums were as follows; Sakıp Sabancı Museum Projects for the Disabled (2013), Koç Museum No-Barriers in My Country Project (2013), İzmir Archeology Museum Journey to Our Cultural Heritage in Small Steps Project (2014), Batman Museum Verbal Steps Application Project (2015), Istanbul Modern Museum “I Can Access, Therefore I am! Istanbul,” and “It is OK If You Cannot See It - Dance With Different Bodies” projects (2015), Bursa Museum Directorate and Bursa Metropolitan Municipality “Accessible Museum” project (2015), Gökyay Chess Museum project (2016), Turkcell Dialogue Museum “In The Dark And Silent Dialogue” project (2016), and Pera Museum “Barrier-Free Pera” project (2016) (Erbay, 2017).

4. Conclusion

Previous studies conducted on the museums reported that museums have contributed to several disability groups. The findings of the studies conducted with individuals with different disabilities demonstrated that the museum visits where audio information programmed based on learning methods, tactile and verbal descriptions, questions and answers, and practice were beneficial (Buyurgan, 2009a). When the physical conditions are available, the visit could be effective (Smith, 2002). Disabled individuals can learn in a scheduled museum visit (Buyurgan, 2009b; Buyurgan & Demirdelen, 2009) and museums contribute to the education of disabled individuals (Reidmiller, 2003). Museum visits are not significant only for education but also provide social activities (Gaffken, 2013). It has been evidenced that museums are beneficial resources as interactive, learning and development environments for children with disabilities and their families, caregivers and educators (Cho & Jolley, 2016). Museums also provide socialization in a safe and supportive environment, and individuals could establish strong social bonds while enjoying their independence in museums. It has been proven that museums also have a positive effect on the quality of life (Heineken, 2013).

In conclusion, it has been accepted that museums have several benefits for children, adults, parents, teachers, individuals with disabilities, the elderly, individuals with health problems, and disadvantaged social groups, such as spending pleasant time, learning, socialization, liberation, and cultural development. Particularly individuals with disabilities require more specific facilities during their visits to museums. Thus, various access services and

educational activities are organized in museums for different disability groups in the world and in Turkey. Access facilities in Turkish museums include ramps for the disabled, tactile opportunities that allow the visitors to touch the originals or copies of the collection pieces in a few museums, brochures and exhibition identifications in large print and Braille, reproductions, movies with commentary, audio guides, audio descriptions, tactile tours, tours in sign language, and wheelchair rental. It was observed that the facilities are predominantly for visually impaired visitors. Furthermore, disabled individuals could enter the museum and participate in workshops without a fee. A limited number of educational activities are also organized in a limited number of museums. These include a limited number of activities such as tours and workshops for parents and teachers, lectures, art workshops (painting, collage, three-dimensional, etc.), and competitions. It was observed that these facilities are mostly provided in private museums when compared to the state museums. Thus, more diverse workshops, tours and access facilities should be provided for all individuals, not only the disability groups, through state and private sponsorship.

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Image 1. Royal Academy Of Arts. Downloaded on 18.03.2021 <https://www.royalacademy.org.uk/access-at-the-ra>

Image 2. Metropolitan Museum of Art. Downloaded on 19.03.2021 <https://www.metmuseum.org/learn/workshops-and-activities>

Image 3. Museum of Contemporary Art Australia. Downloaded on 19.03.2021 <https://www.mca.com.au/plan-your-visit/access/art-everyone-weekend-2019/>

Image 4. British Museum. Downloaded on 23.03.2021 <https://www.britishmuseum.org/visit/accessibility-museum#accessible-resources>

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CHAPTER 6

GENERAL MUSIC EDUCATION FROM CREATIVITY PERSPECTIVE

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1. Introduction

Throughout human history, individuals and societies invented and developed new systems and altered their perspectives and behavior to survive. In the present age, we continue to exist as individuals who can think creatively, produce alternative solutions to challenges or problems, and solve them with a critical approach. However, over time, we lose our ability to use these skills in adulthood. Although our creative skills could be suppressed by the environment, profession and education, we could begin to utilize or improve them. The methods to achieve creativity that vary from one individual or culture to the other are different based on the individual, group, culture and objective.

Creativity is generally described as sensibility to problems, disorders, lack of knowledge, missing elements, incompatibilities, the ability to determine the challenges, search for solutions and estimations or to develop hypotheses for the problems, alter or retest these hypotheses, and to come up with a solution (Torrance, cited by Sungur, 1992). Creative thinking is independent, active, and productive. Creative thinking skills allow the children to come up with and propose new ideas, construct and propose hypotheses, employ their imagination, and search for alternative innovative outcomes (Wegerif, 2007).

Creative thinking was defined as thinking that allows students to use their imagination to generate ideas, questions and hypotheses, try alternatives, and analyze their and their peers' ideas, outcomes and processes. Everyone has creative thinking skills. However, since children are not fully aware of rigid logic and convergent views, they have different, open, original, playful, in other words, creative traits (Kampylis & Berki, 2014).

Education systems should improve the creativity of individuals. It could be suggested that art education is among the most adequate fields that could contribute to the development of children's innate creativity. Taggart, Whitby & Sharp (2004) analyzed the arts curricula in 21 countries and reported that art education aimed to improve artistic skills, develop the participation in several artistic work, improve cultural awareness, share artistic experiences, and train active art consumers and producers, as well as the improvement of personal and social traits such as self-confidence and self-esteem, individual expression, teamwork, intercultural approach, cultural participation and creativity.

Therefore, art and music education is significant in education systems based on creativity. Music has significant social, cultural, economic and educational effects on individual development (Uçan, 2005). Music education develops self-expression and creativity, movement and rhythmic abilities, aesthetic emotions, cultural knowledge, lingual, cognitive and analytical thinking skills of the individuals (Bilen, 1995).

2. Creativity

Creativity is the spark of life, and it is in our nature, we are born with it. It is the vitality that stimulates the desire to heal and change the present in a meaningful, responsible, intelligent and effective way. Employing the light of creativity, we put a distance between us and the past, understand the present, imagine the future and connect forever. We judge these actions based on the measurement of success, reactions of others, clarity of purpose, and personal needs. Creativity is a condition of our species. We invent, change action, develop new systems, and create new knowledge to improve the odds of survival. Human creativity is an extension or another expression of our biological imperative (Segal, 2001).

Creativity is not the privilege of a few individuals, but it is a significant behavior that everyone in could adopt, and is necessary in interpersonal life, relationships, and in several events or situations (Yavuzer, 1989). Everyone is more or less creative, similar to intelligence, and the creativity of each individual could be improved in a varying degree (Sternberg & Lubart, 1995). It is a multidimensional power that we all possess. It is a process that entails the observation of new possibilities and opportunities. It is not an independent skill but it is associated with our willingness to re-observe and rethink the things we are used to (Robinson, 2001). Thus, creativity is a potential in every individual and could be manifested and improved in adequate conditions. The creative stimulus that affects the emergence of creativity is reflected not only in

the production of a work of art, but also in the curiosity and interest about the solutions in the face of a problem.

Csikszentmihalyi argued that the road to a creative life is paved by nurturing the curiosity and interest, which is possible when an individual surprises herself or himself or someone else every day, follows her or his interests, wakes up in the morning to do something she or he desires, and spends time in environments that stimulate creativity. (Csikszentmihalyi, cited by Santrock, 2012). Sungur (1992) claimed that a creative individual should ask questions about events, objects and facts, and interact with own and external emotions and ideas.

Creative individuals could easily adapt to the situations they face, are flexible, fluent in diverse ideas, employ available material with various methods based on their needs, use their imagination to come up with difficult inventions, and do not respond with ordinary solutions to the problems. Creative individuals could analyze the details of an incorporated whole, diversify experiences by learning about the privileges of things as well as individuals. They can create new and meaningful forms based on the synthesis of small materials and various elements. They can exhibit organizational consistency by introducing neat, concise and essential solutions to problems, and can connect each stage with a logical approach. They are aware of all sensory stimuli and sensitive to the emotions, culture, problems, etc. of other individuals (Lowenfeld, 1962). Thus, it could be suggested that the development of an individual's creative potential also improves the quality of the individual's relations with others. Communication and interaction, which are both based on creativity, could have a positive effect on the whole society.

Torrance (cited by Orhon, 2014) reported that creativity is necessary not only for the development of new ideas, but also for personal happiness. Torrance (cited by Yavuzer, 1989) believed that the creativity of each individual is different and that the creativity skills could be improved with school activities that should be included in educational programs. Creativity is a potential that could be improved in the education and socialization processes.

3. Creativity in General Music Education

Music education is basically the process of the acquisition, development or change of musical behavior. It aims the acquisition of a minimal and general music culture via general music education instructed to individuals of all levels and ages, from pre-school to college without any exclusion. At the end of the process, structured based on the musical life of individuals, a healthy, productive and effective communication and interaction between the individual and the

musical environment are expected (Uçan, 2005). In creativity, an integrated act of reflection and execution is necessary. The creative process in general music education follows the same path due to the nature of music education. However, to improve the quality of music education and the creative potential of students, it is necessary to emphasize creativity.

3.1. The Significance of Creativity in General Music Education

Education should demonstrate the impact of creativity and creative energy on the content and quality of human life (Hagness, cited by Beetlestone, 1998). Sungur (1992) argued that the aim of education is to train innovative individuals, who do not repeat the work of previous generations, while Orhon (2014) claimed that it aims to train young generations who can learn and develop beneficial products for the society.

A society of creative and qualified individuals is open to scientific, technological and artistic development. Thus, education systems that include processes where educational strategies are employed to develop the creative potential of individuals are among the sine qua non in contemporary education. It is important that every educational field should aim to support and improve the creativity of individuals, and ensure the training of creative individuals.

Although the society believes that creativity is unique to artistic fields, creativity is not required only by artists but also every individual in every field. Creativity and the creative process should be considered in all grade levels. Such an approach would not aim to train artists but allow the self-realization of the child via improvement of creativity. This would affect the society as well as the future and happiness of the child. When children think differently and creatively, they are more likely to establish creative connections. Music courses structured with this approach could widen the horizon of the students and improve their creative thinking skills.

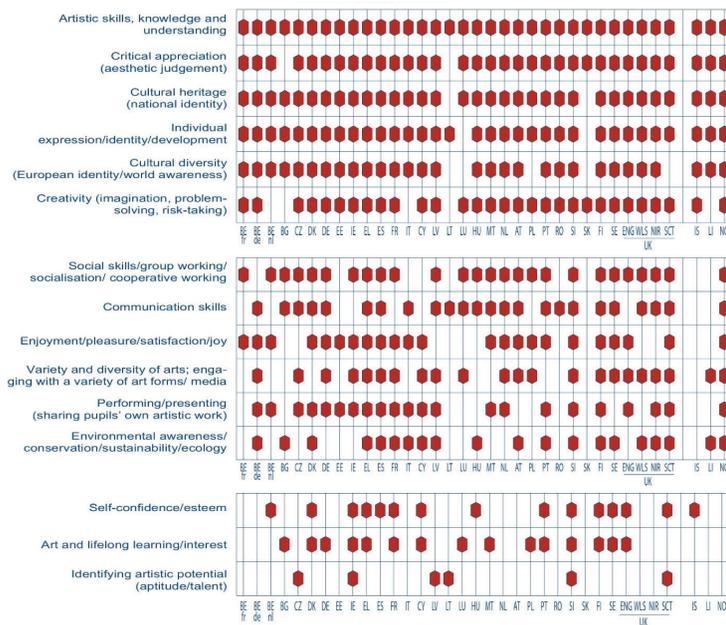
Art education included in formal education includes the processes of the establishment of communication with the objects, sounds, body and words in fields such as visual, music, dance, drama, and literature by employing all emotional and intellectual processes of the children and adolescents, and the acquisition of certain forms via new organizations and formations. At the end of the creative learning processes, the participants would realize that their experiences included creative expressions leading to self-expression and self-realization (San, 2000).

In the Arts and Cultural Education at School in Europe conducted by Education, Audiovisual and Culture Executive Agency (2009), the arts curricula in 30 European countries were reviewed and European policies on arts, cultural

education and creativity were determined based on the arts curricula. The potential of arts education was emphasized to enforce the creativity of young individuals and the significance of continuous improvement of education quality was also emphasized. The study focused on visual arts, music, drama, dance and media arts.

The study findings revealed the following arts and cultural education curricula objectives in European countries that are presented in Figure 1.

Figure 1: The objectives of artistic and cultural curricula in European countries



Source: Eurydice.
Additional note
 Spain: aptitude in performing or presenting a work at ISCED level 2 only. Self-confidence or self-esteem at ISCED level 1 only.
Explanatory note
 The aims are grouped according to the number of times they occur throughout the curricula of all the countries: the first table contains those found in the greatest number of curricula and the last table contains those found in the smallest number of curricula.
 For information on ongoing and future reforms, please consult the annex.

Source: <https://op.europa.eu/en/publication-detail/-/publication/0e41e888-7d1b-4073-adea-502974017735>

Although the aims of self-expression and development of creativity, which were among the first 6 learning objectives, was present in almost all arts and culture education curricula, this objective was not included in the arts and culture education curricula in five countries.

The above-mentioned study findings demonstrated that countries developed education systems that included creativity in the art education curricula. Music education is considered within the scope of art education. Uçan (2005) reported that music education contributed to the fulfillment of the aesthetic needs of the individual and the society, satisfaction of the artistic creation instinct, development of personal taste, achievement of a healthy musical life, improvement of effectiveness and productivity, and contribution to a happier private and social life via musical activities and interactions. Thus, it is important to adopt and implement music education approaches that prioritize creativity in training creative individuals with self-expression skills in art and music and contribute to the development of a modern society.

3. 2. The Significance of Creativity in General Music Curricula

Traditional education generally prioritizes convergent thinking, leading to the discouragement of divergent thinking and creative skills. Especially in formal education, categorized information is instructed in patterns, and memorization of the classified information is prioritized. However, for an individual to soak the information in the ever-changing world, the education should promote independent thinking through the observation of the interactions between the data, and the development of interdisciplinary outcomes, and divergent and critical thinking (San, 2004).

Turkish education system is based on the constructivist theory. In constructivism, knowledge is not acquired passively via the senses or various communication channels or that exists in the outside world. On the contrary, knowledge is constructed by the learner. Thus, the constructions are personal (Açıkgöz, 2006). Constructivist instruction is a creative and interactive process. Teachers teach the students within a particular context. The activities in the minds of the teachers and the students are only partially defined by the topic. The approach encourages the teacher and the student to consider the society that needs to work within organic collaboration as creative individuals (Garrison, 1998). Beetlestone (1998) argued that creative teaching could improve the quality of education, lead to more meaningful learning, and curricular approaches could lead to exciting paths. The inclusion of creative processes is inevitable in the education system, since courses structured with creative processes would generation of novel ideas, hypotheses and alternative innovative solutions by the students who employ their imagination.

In educational environments that instruct musical behavior, creativity and development of creative processes should be prioritized in course content, the

determination of instruction methods, textbooks, and learning environments. Because the development of an individual's musical behavior, musical self-expression, creativity, and creative self-expression are important.

The specific objectives of the music course curriculum (1st-8th Grades) include the development of student creativity and talent through music (Ministry of National Education [MNE], 2018a). Musical education approaches that would develop aesthetic sensibility of the students through music (listening, speaking, etc.) and music making (singing, improvising, composing etc.) were adopted in the curriculum. The curriculum aimed to train creative individuals with independent self-expression skills and who could create novel works at all levels of education. Furthermore, student self-confidence and creativity should be improved by positive attitudes towards music, and implementation of musical activities (singing, creative practices, research) based on their interests and skills (MNE, 2018b).

Music courses should include processes that would develop the musical creativity and creative potential of the students. Musical creativity is a skill that allows the individuals to express their personal relationships with sounds by employing cognitive, physical and psychological skills. Musical creativity is present in every musical act such as listening, playing, improvising, directing, arranging and composing (Padula, 2009). Furthermore, creative movements/dance are also important in the development of creative potential.

Music course curriculum (MNE, 2018a, 2018b) includes four basic learning areas that are consistent with each grade content: listening-singing, musical perception and knowledge, musical creativity and musical culture. The learning outcomes of the course are also classified based on these learning areas.

The listening-singing learning area includes acquisitions in music listening and singing. Main outcomes of the area are as follows:

- Listening to music, identifying the sound resources (instruments, etc.)
- Accompanying the music and songs with body percussion and simple rhythm instruments
- Singing songs in the accurate tone
- Singing songs with accurate dynamics and tempo
- Singing melodies with different rhythms
- Performing as a group (canon, two voices songs, etc.)
- Singing the songs suitable for the student level as sight reading
- Performing musical works.

Musical perception and knowledge includes acquisition of the basic musical elements and the following objectives:

- The intuitive acquisition of musical elements based on the rhymes, counting rhymes, school songs, etc. that students know before the instruction of theoretical notation
- Rhythmic accompaniment of the songs
- The intuitive acquisition of musical elements with rhythm/melody repetition, tempo, dynamics, pitch activities
- Taught of basic musical notation, related symbols, etc.
- Theoretical and practical instruction of knowledge on reading and writing music and musical expression.

Musical creativity includes acquisitions that lead to creative expression of music by the student and the following main objectives:

- Transformation of the melodies into movement
- Animation of the stories with sound resources
- Transformation of the rhythmic and melodic phrase into movement and dance
- Create rhythmic and melodic phrase and singing self-compositions
- Expression of emotions with music, movement, and dance
- Expression of emotions and views on the music they listen to.

Music culture includes acquisitions of musical behavior associated the affective area, and the following main objectives:

- Respect for the national anthem and musical activities about Mustafa Kemal Atatürk.
- Compliance with the music listening rules specific to the environment
- Improvement of the music taste and culture by listening to different genres of music
- Participation in school and nearby musical activities with pleasure
- Knowledge on Classical Western Music, Classical Turkish Music works and composers
- Recognition of the significance of art for Mustafa Kemal Atatürk.

The music course achievements in several learning areas are distributed across the grade levels. The distribution of the music course achievements for 1-12 grade levels are presented in Table 1.

Table 1: The distribution of the music course achievements for 1-12 grade levels

Grade	Listening-singing		Musical perception and knowledge		Musical creativity		Music culture		Total	
	f	%	f	%	f	%	f	%	f	%
1	11	46	3	13	5	21	5	21	24	100
2	7	39	5	28	2	11	4	22	18	100
3	7	32	7	32	4	18	4	18	22	100
4	5	24	6	29	5	24	5	24	21	100
5	6	26	7	30	6	26	4	17	23	100
6	7	30	4	17	6	26	6	26	23	100
7	7	32	4	18	5	23	6	27	22	100
8	10	40	2	8	4	16	9	36	25	100
9	11	46	3	13	5	21	5	21	24	100
10	7	39	5	28	2	11	4	22	18	100
11	7	32	7	32	4	18	4	18	22	100
12	5	24	6	29	5	24	5	24	21	100

Source: MNE, 2018a, MNE, 2018b.

The analysis of the music course curriculum achievements based on the learning areas revealed that the acquisitions in musical creativity and music culture learning areas are not included in sufficient numbers. However, our values and competencies, which will establish the connection and integrity between the knowledge, skills and behaviors that are tried to be gained through the programs, can be achieved through the acquisitions that will be enriched under the musical creativity and music culture learning areas.

The Curriculums of the Ministry of National Education can change under the conditions of the day and can be updated with constant revisions and are created in a renewable structure. Thus, the Ministry of National Education curricula should be revised based on the aim to train individuals who can produce

knowledge, employ knowledge in daily life, solve problems, think critically, be entrepreneurial, determined, with communication skills, empathize, contribute to society and culture, etc. The revision of the music course curriculum should be conducted based on the target skills, the achievements in learning areas, and grade-based achievements and their suitability.

The learning outcomes should be planned to include further achievements and practices associated with creative potential, aesthetic perception, music listening habits, music culture and the association of music with other arts. Furthermore, it is important to develop learning processes where students could discover and learn and associate knowledge with several activities/applications. Thus, a detailed section on the learning and instruction processes in music course should be included on listening, rhythm, improvisation, and choral singing with special music instruction methods and techniques.

3.3. Creativity in Contemporary Music Education Approaches

The implementation principles for the music course curriculum should include the employment of various instruction methods by the teacher such as lecture, question-answer, interview, debate, research-analysis, game, drama, learning by doing, production, task sharing, and exhibition to ensure active participation of the students in activities. It could be suggested that special music instruction methods such as listening, rhythm, improvisation and choral singing would allow the students to love the music course and lead to effective instruction. The instruction process should be balanced between philosophy of the development of the students' aesthetic sensibilities through music (listening, speaking, etc.) and the philosophy of education with musical performance (singing, improvising, composing, etc.) (MNE, 2018a).

Music instruction methods play a key role in effective acquisition of the required knowledge and skills by the students. Music instruction method is the regular approach selected and implemented with awareness to reach the goal of the music instruction process or the musical teaching-learning activities (Uçan, 2005). About the implementation of the music course curriculum MNE (2018a) suggested the employment of methods and approaches such as Dalcroze, Orff, Kodály the common methods in music education, especially for the acquisition of musical understanding and musical skills via active learning, and the traditional education and instruction methods should.

Many world-renowned educational methods and approaches are employed in music education. Among them, the most frequently used methods or approaches today that promote creativity is active involvement include which

Dalcroze, Kodály, Orff-Schulwerk Music and Movement Pedagogy, and Gordon Music Learning Theory.

Dalcroze approach was developed by Emile Jacques Dalcroze. Musical listening, reading, writing and speaking, musical elements (tempo, dynamics, measure, beat, rhythm, etc.) are instructed with bodily movements and movements. Thus, not only the student's sense of rhythm, but also general musical perception improves systematically via the movements (Dittus, 2017). The aim is not only to train the body, but also to create rhythmic emotions and ideas with the brain-body interaction created by the music for a permanent musical education (Yıldız, 2002).

According to the Dalcroze system, when there is harmony between the cognitive and physical activities, children enjoy the work. Focusing the attention is the most important point in this process. The student should reflect the music directly in the body. Then, the student should use intelligence to analyze and understand the music she or he hears. Finally, it is the turn of the movement. The body moves, and the degree to which children participate in music by movement reflects their attention and interest. The child innately enjoys invention and movement. The harmony between the cognitive activities and physical movements allow the child to enjoy the musical activity and relax (Yıldırım, 1995).

The Dalcroze approach is a combination of music, sounds and movements. The most dominant musical element associated with life is rhythmic body movements. Thus, the first step in the instruction approach is the rhythm and physical movements are emphasized in the method. It was suggested that the music courses, where the students actively make music, move and dance, would be more effective. Thus, musical student experiences are multidimensional, employing both the ear and the body. Dalcroze approach prioritizes action and movement when compared to the theoretical knowledge, and since everything that the student experiences is a foundation for learning the theoretical knowledge, the student primarily experiences movement (Choksy, Abramson, Gillespie, Woods, & York, 2001).

In the Dalcroze approach, the students install the music they hear in their body, feel the music, and immerse themselves in its rhythm. They accompany the music with their body movements and interpret the music. Thus, they use their body as an instrument to interpret sounds. The significance of the approach is concentration, and then sensibility (Bozkaya, 2001).

Dalcroze approach includes three main parts: eurhythmics, solfège and improvisation (Choksy et al., 2001). Eurhythmics includes the instruction

and practice of the rhythm and dynamics in rhythm with movement, solfege includes instruction of the melody and harmony on the staff, and improvisation includes the development of the student's improvisation skills with rhythm and music by the support of the movements invented by the student with sounds and instruments.

In the Dalcroze approach, the foundations of creativity are laid with improvisation. The teacher improvises on a piano or a percussion, and the students improvise with movements. Speech, clapping, singing, storytelling, and percussion are the instruments used in improvisation. Improvisation fulfills the needs of the students such as research, discovery and freedom of expression, and allows spontaneous musical expression (Gürgen, 2006). Physical movement and hearing during musical mastery training and improvisation allow the children to experience all their skills, imagination and creativity, develop aesthetic and motor coordination, improve concentration and listening skills (Blom, cited by Erdal, 2005).

In classrooms where the Dalcroze approach is adopted, students improvise with several methods. They express the music with improvised movements. At the beginning of the class, the focus is on analysis with the ear, body and eye, improvisation is experienced with various methods during the class, and at the end of the class, the analyzed items are synthesized with improvised performances. In the improvisations by the beginners, measure and tempo assist solo or group improvisations. In advanced classes, rhythm and sound are integrated in increasingly complex musical sentences, periods and variations. Students perform complex improvisations where rhythm and sound are combined, and then they improvise with instruments (flute, strings, piano) (Choksy et al., 2001).

The Dalcroze approach improves the sense of rhythm and rhythm ideas of the children. It helps self-recognition by improving their sensory, psychomotor, intuitive and cognitive traits. It strengthens and improves musical attention and memory. It develops internal hearing skills. It allows them to transform musical expressions into psychomotor expressions (Uçan, Yıldız & Bayraktar, 1999). The approach is based on movement, and the latter is associated with musical comprehension, listening, expression, and the sense of self. It allows the students to experience music precisely through movement by improving the individual's sensibility and awareness of musical dynamics. It provides a bridge between the concrete and the abstract in musical comprehension.

Kodály Method was developed by Zoltan Kodály, colleagues and students in Hungary and focuses on the requirements and conditions of reading and writing music. Zoltan Kodály established certain music education principles,

and these were later developed by his colleagues and students. After Kodály became interested in musical pedagogy, the basic principles of the approach were determined and implemented in general schools in Hungary in late 1920s (Kodály Institute, 2021).

The aims of music education determined by Kodály included the maximization of the musical capacity of each child, instruction of the language of music to children, and allow them to read, write and produce in that language. The method aims to introduce the products of the native language and culture (folk songs, etc.) and the world's greatest works of art to the children, and train children who love music and life based on a confidence of their musical knowledge while listening, studying and analyzing music (Choksy et al., 2001). Kodály believed that the simplicity, beauty and heritage property of the folk songs rendered these as the best material to fulfill the physical, developmental and psychological needs of young individuals (Houlahan & Tacka, 2015).

According to the method that aimed to instill a real music culture in everyone and to train an audience as large as possible, every individual who speaks, writes and understands a language could learn the language of music. Singing is the most important skill of a musician. Folk songs are the musical native language of the child and should be a tool in further education of the child as well. Only music with artistic value should be used in education (Kodály Institute, 2021). Kodály emphasized that children could improve their voices by listening to model singers since they develop linguistic skills by constantly hearing/listening, and argued that children could learn better with their own natural instruments, that is, their voices (Howard, 1996).

The basic philosophy of the Kodály method included the following (Choksy et al., 2001):

- Every literate individual could become music literate.
- Singing is the best foundation for a musician.
- Music education is effective when initiated at an early age.
- The lingual heritage of the children, folk songs are their native language of music. Thus, folk songs should be employed as an early education instrument.
- Music instruction should be conducted with music with the highest artistic value and folk songs.
- Music should be focus of the program that education is based on.

Tonic solfa, hand signs (phonomime), rhythm duration syllables and stick notation are the learning tools employed in the Kodály method. Hand signs was developed by John Curwen in 1870 and rhythm duration syllables were developed by Jacques Chev e in the 1800s were adapted by the approach (Choksy et al., 2001). Furthermore, inner hearing skill practices develop and support musical comprehension, feeling, analysis and memory based on intervals, tonalities, forms etc.

Improvisation skill is a natural skill for children; however, the skills they acquire as they sing, learn to read and write music, and understand the form of the songs in the repertoire provide a model for composition. Houlahan & Tacka (2015) reported that two types of improvisation and composition activities are employed in Kod ly classes. In the first type of activity, students improvise the rhythms or melodies without describing these. In the second, the improvisation is conscious and employ rhythmic and melodic elements. Creativity skills should be developed by manipulating the familiar rhythmic and melodic structures before students could compose. Furthermore, for the development of musical creativity skills of the students, Kod ly argued that the teachers should guide student improvisations based on small rhythmic and melodic patterns from the known repertoire.

Kod ly stated that students should have a well-trained ear to improvise and compose music, the compositions of the children with an untrained ear are usually different from their imagination, or those who are not fluent in musical literacy could make an effort to compose simple harmonies (Houlahan & Tacka, 2015).

It was reported that Kod ly musical method could be employed effectively at every stage of education in Turkey (U an et al., 1999). In summary, Kod ly's educational philosophy was based on the developmental level of the child, instruction at an early age with games, employment of singing in understanding and learning music, with a focus on reading and writing notes, training the ear, rhythmic movement, singing and listening. It aims to develop an ability to appreciate and actively listen to music, to train a good audience, and a public who understands music not artists. Creativity and improvisation, on the other hand, are mostly employed after the children become musically literate.

Orff-Schulwerk Music and Movement Pedagogy was based on the work of Carl Orff and Gunild Keetman in the 1920s. The essence of Orff-Schulwerk is the natural, simple, primitive soul and music. Thus, Orff-Schulwerk accepts that every child has a unique talent, and the aim of the music and movement

education is not solely musical training but also to train individuals (American Orff-Schulwerk Center, 2007).

Orff-Schulwerk is a way of musical instruction and learning and base on the interests of a child such as singing, clapping hands, dancing and keeping the rhythm (American Orff-Schulwerk Center, 2007). Elementary music includes the integration of movement, dance and speech, is close to the world, natural and physical, which could be experienced by all; and therefore, suitable for a child. Anyone can play this music and become a performer, not only a listener (Orff, 2008). Thus, elementary music allows the development of the existing potential of the individual in a creative process that includes music, movement, rhythm and with a natural, innate sense of movement and musical impulse.

Kugler (2010) discussed the rhythm and melody in Orff-Schulwerk method as follows: Rhythm is an ever-present, basic, essential and integrating element in music. It is employed in body percussion, dance forms and percussion instruments. Melody includes spontaneous vocal expressions and could be observed in emotionally charged speech, chanting, reciting, humming, singing, or in studies that aim to explore the xylophone.

Another element, movement/dance occurs due to the impulse to play in children and the impulse to act in adults. Participants could transfer the physical discoveries or improvisations and experiences to an instrument or music. Thus, movement, rhythm and speech -completing one another- allow the individual to discover the existing and new phenomena, to improvise and to create a product. Playing an instrument is not the primary objective of the Orff-Schulwerk method. Instruments should be non-specialized, simple, those that could be considered as a part of the body, that could allow large body movements to produce sounds and played with a natural bodily movement. Also, every instrument could be an elementary Orff-Schulwerk instrument as long as the playing technique is simple. However, the sound quality of the instruments is important, and all types of noise should be avoided.

Improvisations are not limited to instrumental improvisations in the Orff-Schulwerk. It also includes movement improvisations during the self-discovery of the body and movements and became a self-expression via movements. Creativity exists not only in cognitive processes, but also in physical behavior. Creative thinking is manifested in cognitive, affective and physical domains (Orhon, 2014). According to Kugler (2010), Orff emphasized that the class should start with all lines of improvisation and listed the following pedagogical and learning principles in the Orff-Schulwerk: Process-oriented baselines that lead from discovery to improvisation should be employed and

learning should be accomplished with predetermined or improvised content (question-answer, reflection, rondo charts) and in-group interaction. Also, the instructor should be open for different paths for different levels. Movement, speech, singing and playing an instrument should be incorporated and these should be allowed to emerge from each other, and this process should lead to summary presentations or products. Building block or model principle should be adopted and small, predictable units should be employed to reduce the coercion or fear of creation, and globally accepted musical presentation principles should not be neglected.

In this student-oriented method, teachers should prepare the children for learning, provide clues and guide them. Thus, the method is beneficial for the development, organization and implementation of effective musical instruction and learning (Uçan et al., 1999). In brief, in all creativity and improvisation activities, the instructed should allow enough time and opportunities during the individual's discovery process; however, in the next stage, the individual should be supported to prevent mediocrity and to achieve quality discoveries. Also, the development of the product by the individual would ensure permanent learning. However, the learning process should not be dictated by the teacher, but discovered by the students, and depend on improvisation. After the presentation, process-oriented feedback should be provided based on the product and multiple perspectives, without judgment or criticism. Because each individual presents a new product based on the topic instructed in the course through a unique process. Thus, every product is unique, original and valuable.

Gordon Musical Learning Theory was developed by Edwin E. Gordon based on his research on musical leaning, psychology and education and the tests he developed about musical aptitude and ability.

The theory was finalized as a result of Gordon's work, observations and studies in an academic setting in the United States based on scientific data. It is based on the musical learning of an infant or a child rather than being a method for music instructors. The theory was based on the similarities between native language learning and musical training. An infant hears and listens to the native language constantly after birth. When the child is ready, he or she could speak without any grammatical knowledge imitating the sounds and words available in the environment. Musical learning should be based on song repertoires to develop the musical knowledge of the infant, like learning the language. This knowledge would be the basis of the predisposition to music. As the familiarity and meaning of music increase for the child over time, the child is instructed to read and write music and play an instrument (Borsacchi, 2017).

In Gordon Musical Learning Theory, breathing, movement, listening, audiation, and listening to oneself and others are important. Rhythmic duration syllables, rhythmic/melodic patterns, and movable do are used. Musical education is conducted in two sections: informal (0-6 years old) and formal (over 6 years old). In informal education, the child is not expected to perform. The instructor attempts to include the child in the musical conversation by singing. The instructor assists the student in the acquisition of musical knowledge by providing examples only by listening/singing (audio/oral). In formal education, the child is expected to perform, and a certain program is applied to initiate musical literacy and instrument education (Borsacchi, 2017).

The learning of musical skills is gradual. A new step is not initiated before the completion of the previous step, and completion of the learning process is ensured by returning to the previous step when necessary. Informal education is described as “preparatory audiation”. Gordon (2013) analyzed informal education in three basic stages: acculturation, imitation, and assimilation, which included steps of their own.

1. Acculturation: Absorption, random response, purposeful response
2. Imitation: Shedding egocentricity, breaking the code
3. Assimilation: Introspection, coordination

Formal education was analyzed in two basic steps of discrimination and inference learning, which included steps of their own (Gordon, cited by Bluestine, 2000).

1. Discrimination learning: Audio/oral, verbal association, partial synthesis, symbolic association, composite synthesis.
2. Inference learning: Generalization, creativity/improvisation, theoretical understanding.

In Gordon Musical Learning Theory, creativity/improvisation is initiated after children is musical literate and acquire musical skills. Gordon (1989) claimed that a comprehensive musical repertoire that includes tonal and rhythmic patterns should be mastered to improvise, and improvisation and creativity is the product of the employment of the rhythmic and melodic patterns in the music repertoire with a logical and reasonable approach. Azzara (1999) reported that improvised performance is based on several basic structures such as tonality, harmonic development, measure, form; and thus, creativity has fewer limitations than improvisation.

4. Conclusion

An individual with creative thinking skills could approach problems from different perspectives, adapt the objects in the daily life with different methods, or create new products, and come up with practical and meaningful solutions to the problems. Thus, creativity skills improve and positively affect the life of the individual. Creativity, an indispensable factor in personal and social development, is not independent from education. Creativity is the basic element in developed nation educational systems. The main goal is the development of the creativity of individuals.

Eurydice European Education Information Network (2018, p. 217, 218) stated the following on the Turkish Education System: "...Based on the 2020 Strategic Framework for European Cooperation in Education and Training, factors such as innovation and creativity should be promoted are independent of the education level. (...) There are national resource centers for creativity, innovation and entrepreneurship with significant missions such as promotion of science and mathematics education, raising the interest of students and teachers in mathematics, science and technology, and promotion of teacher collaboration." Furthermore, the 2020 Education and Training strategic goals included "lifelong learning and mobility, improvement of the quality and effectiveness of education and instruction, promotion of equality, social cohesion and active citizenship, entrepreneurship, creativity and innovation at all levels of education."

The Turkish education system emphasized the development of creativity at every level of education. In the present age where the world constantly changes and develops, it is important to train individuals who are aware of these changes, interact with others to keep up with the times and follow the developments. Art education is undoubtedly one of the fields that would train individuals with creative potential and independent, multidimensional, interdisciplinary, and critical thinking skills, who could ask questions and support the development of this potential.

Art education aims to develop independent and productive thinking, entrepreneurship and creative activities. Observation, research, discovery, implementation, experimentation, inspection and conclusion, the main elements of basic art education, are almost similar to scientific research methods, and prepare children and young individuals for the scientific and technological conditions (San, 2000). Thus, music education, a branch of art education, is important for the development of the creative potential of individuals.

Various methods and techniques are employed in musical education to improve student creativity. Methods such as Dalcroze, Kodály, Orff-Schulwerk

Music and Movement Pedagogy, and Gordon Musical Learning Theory are commonly used in musical education, especially for the acquisition of musical understanding and skills via active learning. These methods, which establish a musical foundation, focus on the development of the creative potential as well as listening to, making sense of, reading and writing music skills. The selection of the method or the process to develop the creative potential of the student in educational environments is associated with the readiness of the students and the approach of the instructor. It is important that the teacher uses own inner sensitivity to direct the student to listen to herself or himself and discover her own music internally, without straying from the guiding role, and to create an environment without prejudice and build trust with the student. Thus, the student could independently self-express avoiding old habits and opening herself or himself to the new or unknown.

In addition to the employment of these methods directly in the general music education system, their philosophies and the process of guiding the students towards creativity should also be carefully considered. Additionally, the applicability of these methods in terms of materials, physical environment and facilities, the readiness levels of the students, sufficiency of music lessons duration, teacher proficiency and several other aspects could sometimes lead to question marks among the teachers. Thus, it is also important train music teachers with creative potential, who can employ and adapt these methods based on the current conditions to develop the musical and creative potential of the students. The teachers who can adopt these methods should be specifically trained in courses that aim to develop the creative potential and include contemporary music education methods and approaches that support creativity. Furthermore, undergraduate music teacher training programs should train pre-service teachers who are equipped with contemporary music education methods and approaches that support creativity, and who can improve their creative potential.

Settings, courses, studies and projects should be developed to support the creativity of the students in formal education with an interdisciplinary approach, and students should be trained to acquire a creative perspective. Thus, students could reinforce their experiences with creativity skills in different fields and situations, which in turn would contribute to the creativity of the society in different fields and positively affect social development.

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CHAPTER 7

VOICE PHYSIOLOGY AND VOCAL TRAINING

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1. Introduction

Singing dates to ancient times and before the use of spoken language (Koopman, 1999). The first songs imitated the sounds of nature such as the roar of wild animals or the song of a bird. Primitive tribes used rhythmic sounds to pray to their gods, to communicate with other members of the community, as an expression of enthusiasm and emotions in ceremonies that their magicians considered sacred. These sounds were non-communicative shout outs rather than entertaining or artistic sounds.

The evolution, development and transformation of human beings and their search for self-expression led to the recognition of the harmony of the voice, timbre sounds were discovered, and the voice became an art due to the development of aesthetics, which became important for the cultural needs of humans, and as the significance of aesthetic views-sensations-perceptions increased, a need for vocal training emerged.

The concept of education was defined as the acquisition of desired behaviors with personal experiences as mentioned in the literature. Turkish Language Association (TDK, 2021) describe ed education as “the task of helping individuals, from birth to youth, to acquire necessary knowledge, skills and perspectives to develop their personality, directly or indirectly, inside or outside of the school to take part in the society.” Uçan (2005, p.7) described education as a conscious, purposive and desired process of acculturation, enculturation and acculturation.”

Good education is considered a fundamentally methodological question rather than an ethical one. Good education is not only a function of sound

procedures, but also beneficial objectives and outcomes. The main objective of scientists and educators is the welfare of individuals. For the acceptance of their research, educators and educational researchers should establish a solid association between their studies and a good and justified approach to human well-being. It is extremely important to develop the required conditions for this approach. The circumstances should allow collaboration and concert for ethical education between the researchers and the individuals they work with. In other words, the context should prioritize, welcome, and vigorously discuss the well-being (Hostetler, 2005).

Vocal training is the process of training the voice and raising the awareness of an individual about her or his voice to obtain a better sound from the speech organs. Singing entails the vocal production of musical tones. Vocal training is an individual training process that entails both theoretical and practical methods. A well-equipped educator and the individual's personal traits such as talent and learning ability play a key role in vocal training.

2. Acoustic Properties of Sound

Before a discussion on vocal training, it could be helpful to briefly mention the acoustic properties of sound. Since experience (learning by experience) is possible only by repetition not only among singing or vocal students, but also among vocal instructors, there could be misconceptions about basic acoustic terms such as sound vibrations, sound waves, amplitude, frequency, and resonance. Thus, it may not be possible to sing beautifully and effectively, to recognize the particulars of the sound and vocalization during singing and speaking due to acoustic misconceptions. Acoustics is the science of sound, however; sound is an emotion that is difficult to explain. The perception of sound is physical, and scientific investigation of the phenomenon of physical sound leads to the main topics of the sound theory or acoustics.

Voice is a physical event that stimulates the brain as a result of an stimulus created by a source and transmitted to the ear through a medium. The presence of a source that creates this effect, an environment that delivers the stimulus to the ear and the ear and brain that identifies this stimulus are the elements required for the perception of a sound. These three elements should exist for the development of a sound and when one is not present sound does not occur (Çevik, 1999).

The analysis of the physical sound events first leads to the concept of vibration. Colloquially, oscillations are generally perceived as the movements

that describe only a circle or parts of a circle (swing of an arm, a sling, or a pendulum). However, sound oscillations are slightly different, namely, these are high-speed but small, smooth movements (thousands per second) and include minimal vibrations (Forchhammer, 1937).

Sound originates due to the vibrations at a sound source (the result of a repetitive motion). These sources could be simple or complex. For example, a pipe filled with air or a tuning fork are simple systems that could produce sounds. Vibrating air mass during a lightning or a rolling stone, vibrations produced by the sounds of human crowds are complex sound systems or sources (Zeren, 2007). These vibrations could be simple back and forth movements or a compound movement. In the latter, relatively large, simple movements accompany smaller movements in the same direction. The process could be visualized by slowly moving the hand left and right and allowing it to make smaller right-left movements at the same time. Physically, tones are composed of such compound oscillations. Since the oscillations always move on a straight line, they do not have any form. The term “oscillation mode”, often encountered in acoustics literature, should therefore have a different meaning. It is very difficult to comprehend and investigate these small, rapid vibrations in the air (Forchhammer, 1937). Vibration curves are employed to understand vibrations. Several methods are used to create these curves.

According to Zeren (2007), when a small and pointed wire is attached to a tuning fork, the wire slightly contacts a smutty glass, and as the tuning fork vibrates, when the glass is carefully and quickly pulled upright on the vibration plane, a sinus curve that reflects the trace formed during the movement is created. When an inked nib is used instead of a pointed wire, and paper is used instead of smutty glass (Image 1), since the pulling speed of the glass or paper is known, the size and duration of the length could also be known. Thus, exactly the length of the sine wave or the period of the motion could be easily determined. The amplitude and extent of the movement could be found based on the trace on the paper. As the tuning fork vibrates, the curves formed by the oscillations are called sound waves, the time required for the formation of a wave is called the period, and the number of waves formed in one second is called frequency. The half distance between the crest and trough of a wave is called the amplitude. The low or high amplitude of the sound waves determines the sound volume. As the amplitude of the sound waves increases, the increase in the energy and the sound volume is called high volume. As the amplitude of the sound waves decreases, the energy and the sound volume decrease. The sound created by low amplitude sound waves is called low sound volume.

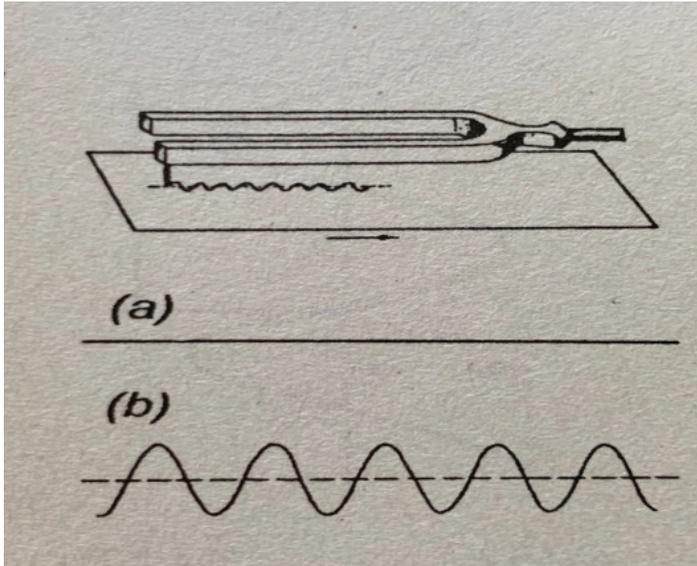


Image 1. The image of the trace of tuning fork vibrations on paper.
Traces obtained with (a) non-vibrating tuning fork,
(b) vibrating tuning fork (Zeren, 2007).

3. The Principles of Breathing When Singing

The correct breathing methods in vocal training has been discussed. Do we make mistakes in breathing patterns, and if so, what are these mistakes? How should we breathe and when should we perform respiratory movements while speaking and singing? What is the importance of healthy breathing when singing? Should we breathe through our mouth or nose? Should breathing be natural while speaking and singing, or do these actions require separate breathing techniques?

There are different views that attempt to answer the above-mentioned questions. Certain experts consider breathing as an important function of the vocal system. Certain vocal experts claimed that correct breathing automatically leads to correct singing and speech. Others did not care about breathing at all and believed that proper breathing occurs when correct voice is produced. According to Vas (2014), everybody knows how to breathe. It is an automatic process, and people breathe without realizing it. However, this system deteriorates with unhealthy habits. Since people tend to slouch and take short breaths and live under unhealthy conditions for the respiratory system, their lung capacity decreases.

Above all else, breathing is a chemical pulmonary process to oxygenate the blood. This process is important for professional singers for a healthy and strong body. Strong breathing and the balance between breathing-in and breathing-out are therefore essential.

In breathing during singing and speaking, taking clean, oxygenated air into the lungs and exhausting carbon dioxide from the lungs, in other words, the physical process, not the chemical one, is perceived. This constant breathing provides the air flow required during singing and speaking.

Until a few years ago, not only ordinary people, but also vocal trainers and pedagogues had incorrect ideas about the physiology of breathing. It was generally believed that air was sucked in by voluntary muscle movements and the chest walls moved with internal pressure. It should be known that this view was based on cause-effect confusion. The reality was the expansion of the chest cavity and thinning of the air inside. As a result, external air flows into the lungs when the airways are open. During inhalation, there is no excessive pressure in the lungs that separate the chest walls, but rather a negative pressure that allows the air to flow in. During exhalation, the opposite takes place. The air is expelled by elastic contraction of the alveoli and abdominal wall, as well as the muscular force of the ribs and active exhalation (Forchhammer, 1937).

Depending on the body part where the expansion or contraction of the chest cavity occurs, respiration is divided into three types:

1. Chest Breathing
2. Costal Breathing
3. Diaphragm Breathing

3.1. Chest Breathing

As an individual inhales, the shoulders rise, the upper chest expands, the abdomen is pulled in, and the diaphragm moves up. This is the involuntary (spontaneous) breathing method adopted by non-athletes and individuals without breathing training. In this breathing method, the oxygen requirement of the individual to survive is fulfilled automatically. However, this breathing method is not adequate in singing. On the other hand, since the diaphragm goes up in this method only to provide space for the expansion of the ribs, there is no room for the sufficient expansion of the lungs. Thus, the flexible muscles are replaced by a tense and hard environment when singing, and the body is strained during long phrases. When compared to other breathing methods, the air intake into the lungs is lower (Forchhammer, 1937; Kartal, 2013; Sabar, 2013).

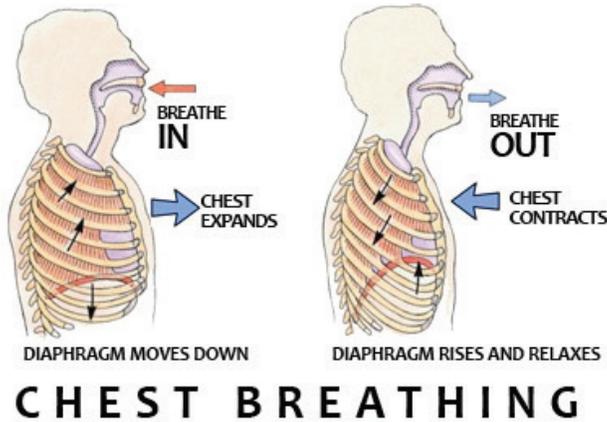


Image 2a. Chest Breathing

3.2. Costal Breathing

Costal breathing is a breathing method that employs the rib movements to determine both the inhalation and exhalation phases. Costal breathing is different from chest breathing where the entire rib cage is raised and lowered. In costal breathing, the rib cage expands and rises. Easy breathing focuses on bending the spine forward and backward during breathing and employs both the spinal erectors and intercostals. While costal breathing could include this method, it also focuses on lifting the lateral and posterior ribs (Keleher, 2021).

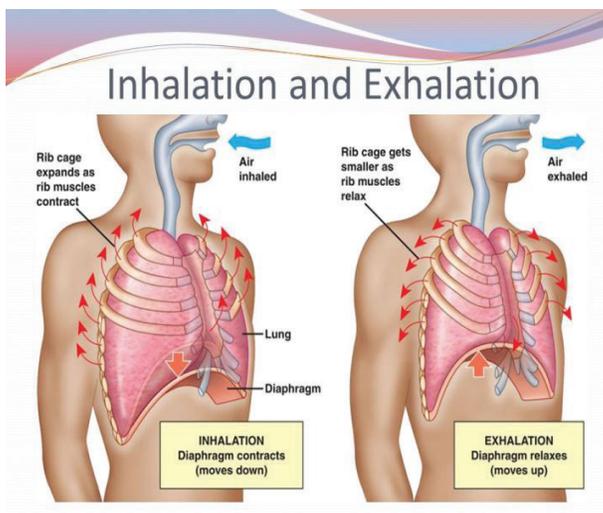


Image 2b. Costal Breathing

3.3. *Diaphragm (Abdominal) Breathing*

This method is the natural breathing method. When the diaphragm is static, it is rounded towards the rib cage, and contracts and lowers during inhalation. The lower section of the ribs expands to the sides, allowing the flexion of the rib cage. During inhalation, the abdomen expands outwards, and it returns to its original state during exhalation (Sabar, 2013).

In abdominal breathing, the diaphragm is arched and then flattened, providing a regular air flow. During diaphragm breathing, the shoulders should not be lifted and there should be no noticeable movement in the chest. This breath method is the most suitable for vocal training, and the air facilitates singing along with the diaphragm and vocal organ. This breathing method allows the discharge of the breath at a slower, regular and desired pressure required for singing. Also, this breathing method does not restrict the resonance of the chest cavity (Kartal, 2013).

The most important exhalation muscle in the abdomen, the Rectus Abdominis, is a vertical and smooth muscle that extends to the cartilages of the fifth and seventh ribs (Çevik, 1999).

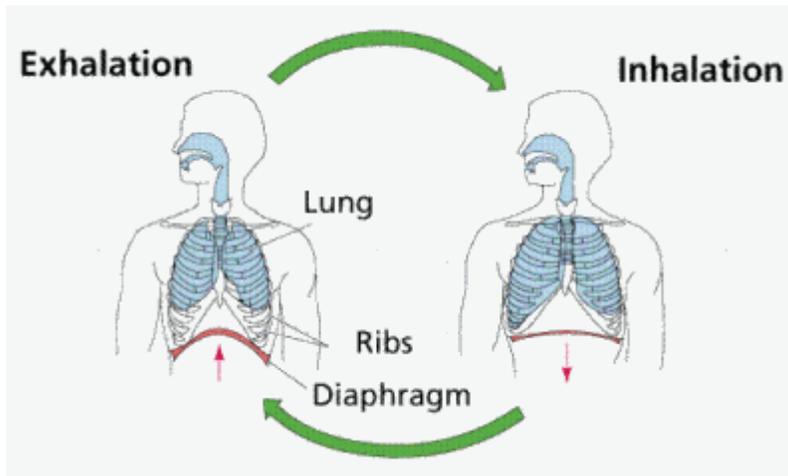


Image 2c. Diaphragm Breathing

The following issues should be considered about the breathing technique when singing and speaking:

Inhalation should be silently from the nose and, if necessary, from the nose and mouth at the same time, as calmly as possible, keeping the chest upright, widening the rib cage to the sides, and loosening the shoulders.

Exhalation should be tailored to the particular function of the vocal chords. This requires full mastery of the breath with both strong air pressure (*forte*) and weaker air pressure (*piano*), calmly flowing notes (*legato*) and short interrupted notes (*staccato*).

4. Breathing Support

It is important to breathe through the nose in daily life due to several physical and emotional reasons. The hairs inside the nostrils filter the particles that could harm the lungs such as dirt and dust, and the mucous membrane on the septum that separates the two nasal cavities warms and moistens the inhaled air before the delivery to the lungs. Breathing through the nose helps balance the oxygen and carbon dioxide in the blood. Breathing through the mouth leads to a larger volume and speedier inhalation and exhalation. This often results in excessive breathing. Breathing more than required has negative effects on our physical and mental health. Since the inhalation volume is higher in breathing through the mouth, it leads to a higher rate of carbon dioxide intake. Mouth breathing is more common in anxiety, when talking fast, walking fast and running. In these cases, the vessels that carry the oxygen to the blood narrow, the red blood cells become sticky and hold on to the oxygen in the blood. Thus, the amount of oxygen intake in the lungs and circulation could be high, however; the oxygen in the blood could not be delivered to the brain and other body cells adequately. Insufficient oxygen in the cells could stimulate the sympathetic nervous system. As a result, the individual could become tense, restless, uneasy and pessimistic. Also, hyperventilation (excessive breathing) induced by chronic mouth breathing could cause several medical problems such as asthma, high blood pressure, and heart diseases (Lewis, 2015).

Breathing support is an indispensable factor to achieve a quality singing tone. When a singer or vocal trainee sings or allowed to sing without or neglecting breathing support, this could lead to a direct vocal distortion and significant damages to the voice in the long run. This is especially the case in songs that include high pitched tones. According to Stern (1928), excessive support movements often spoil the natural beauty of the voice and lead to false discourses.

The views on the nature and purpose of breathing would reveal a consensus on the fact that respiratory pressure includes the contraction of the inhalation muscles to regulate the airflow to the vocal cords, to restrict the air behind the vocal cords. On the other hand, it was also suggested that breathing support entails the compression of the air under the vocal cords (Forchhammer, 1937).

A common sitting position in breathing exercises include sitting on a hard chair while the feet are flat on the ground. If there is no health problem associated with the spine, leaning on the back of the chair is not recommended. It is important to prevent the unnecessary impact of the breathing effort on the body or mind. When excessive tension is observed in the body, it could be due to extensive effort. In these cases, the individual should stop spending effort and concentrate on listening and perceiving. It is recommended to reflect on the expression “effortless effort”. For example, an individual, who complains about car brakes and taking the car to the service all the time, does not realize that her or his foot is on the brakes continuously even when the other foot is on the accelerator. In fact, there is no structural problem in the car, but the problem is caused by the driver whose feet are constantly on the accelerator and the brake at the same time (Lewis, 2015).

5. The Concept of Register

There are several studies in the literature on the concept of register; however, there are still unclarified issues for the singers, vocal trainers, and vocal scientists. Register is a physiological phenomenon manifested as a break in vocal tone. Previous scientific and pedagogical studies described the term as follows:

The term register was defined as a set of tones perceived to reflect similar sound quality and produced in a similar physiological fashion (Jennings, Finnegan, Hoffman, Jaiswal, Hull, 2014). A register is a series of sounds with similar timbre, vocal cord vibration patterns, physiological relationship between the vocal cords and the breath, and adjacent notes with similar tones (Sabar, 2013). According to Titze (2014), register could be defined as several distinct vocal timbres with relatively abrupt shifts, and which may vary slightly based on the basic frequency, vowel, and lung pressure. The combination of these definitions would reveal that the set of tones produced by the vocal cords with the same vibration mechanism is called a register. Forchhammer (1937) described register as the integrity of the tones created by a single and same vibration mechanism of the vocal cords. The sound register is the division of the human voice based on the source of the sound, the perception of the resonance cavity, shape, color, and tone, and the high and low tones (Muhathir, Muliono, Khairina, Harahap, Putri, 2019).

Thus, there are several definitions of register. Since the works of Hollien dates back to the 1970s, several studies cited the definitions in these articles. In an attempt to resolve the confusions induced by the diversity of the definitions, Hollien described the vocal register as a sequence or interval of successive vocal

frequencies that could be produced with almost the same quality. Furthermore, Hollien argued that a voice register was a purely laryngeal phenomenon and to identify the presence of a particular register, it should be defined perceptually, acoustically, physiologically and aerodynamically (Hollien, 1972). According to Nadoleczny (1923), the better a voice is trained, the smaller the laryngeal movement. Especially when singing in the higher registers, the position of the larynx should be adjusted well during the transitions between the tones. Less trained a voice, the laryngeal movements are observed more clearly.

The term of register was derived from the harmonious combination of organ pipes of different sizes and thicknesses that regulate the sound of the church organs to create a certain tone (Fric, Šram, Švec, 2006).

Although several studies claimed that voice includes three registers, other registers could not be ignored.

5.1. Chest Register

The chest register, also called the bass register or the lower register, is the low frequency (bass) register, where the vibrations are produced in the chest, under the pharynx (Çevik, 1999). In male voices, the bass and baritone tones and those between the masculine bass voices and middle range in females include chest voices. These voices are emotional, majestic and magnificent (Sabar, 2013).

5.2. Middle Register

This is also called mixed voice since it is created by various resonator regions. It is the continuation of the chest voice in male voice and it is quite different in female voices. According to Hollien (1972), the middle register includes the basic frequency range normally employed in speaking and singing. This was a quite inclusive statement, and several individuals, especially vocalists, claimed that this register was actually a sub-register that included the chest and head registers, and the low, medium, and high frequencies. The combination of the middle and head registers becomes round and flexible. It is created in in the frontal timbre chambers known as the “mask” and provides personality to the voice (Sabar, 2013).

5.3. High Register – Head Register

It should be noted that this register is not actually produced by the head. When the treble registers (the highest notes) are achieved, these are called

head voices because they are produced by vibrating the upper resonators in the head.

Head voice is produced by the vibration of the free edges of the vocal cords, and it has nothing to do with the perception of resonance or vibration in the head (Otacıoğlu, 2012).

Its essence is piano, and it is the upper register. It reflects emotions such as lightness, flexibility, sadness, and grace (Sabar, 2013).

5.4. Falsetto

Falsetto could be confusing for a novice singer. Certain vocal pedagogues called the feminine male voices and the voices produced by males when singing like women falsetto. However, falsetto could be observed in both men and women. It is also a big mistake to define it as “false voice”. On the contrary, it is true and real, and it has intended use.

Several experts still argue that female singers cannot sing in falsetto, however; previous studies demonstrated that singers of both genders could sing in falsetto. Because the vocal cords of everyone basically function the same way. According to Ömür (2004), it is more prominent in male voices, it is used to prevent the straining of the voice, and high volumes are quite difficult to reach in falsetto. Presumably, the higher vocal range of females makes it difficult to recognize their falsetto.

5.5. Whistle Register – Flageolet

This register includes the keys after C5 in the highest female voices (coloratura soprano) (Çevik, 1999). This voice that a coloratura could easily produce after C3 or D3 is used when signing high-pitch songs (Sabar, 2013). (It was observed that certain vocal trainers used C3 instead of C6, since they accepted the C4-B4 sequence as C1-B1.)

5.6. Strohbass (The Vocal Fry Register)

This is the unusual bass voice in keys lower than 70 Hz and E2 in male bass voices (Otacıoğlu, 2012). (It was observed that the key that should be “E3” if it was used as the “4th string” instead of the basic string, was mentioned as “E2” since the basic string was accepted as the “1st string” even though it is the same string.)

Several properties that singers describe as registers are actually derived from the variations in resonance quality and could be supraglottal (Hollien, 1974).

To prevent future confusions, it should be noted that vocal experts such as Forchhammer and Hollien employed the following terms:

1. Pulse, vocal fry, creak: The lowest frequency rare voices employed only in speaking. (Vocal Fry)
2. Modal, chest, heavy: The vocal range used when speaking and singing low frequency songs, which is generally used by almost every human being. (Chest voice)
3. Loft, falsetto, light, head: The high register keys used only when singing. (Head register)
4. Flute, whistle: Very high register range used when singing. (Whistle register) (Otacıoğlu, 2020).

The difference between the two basic registers, namely the chest and head registers, is the difference between the vibration of the vocal cords. In the chest register, the vocal cord vibrations are thick and bulging over all three dimensions, similar to the lips. If the air pressure is sufficient, the voice would overflow, if the air pressure is insufficient, the voice is sharp and scratchy or cramped, based on the force. In contrast, in head register, only the edges of the elongated vocal cords vibrate, leading to a thinner, lighter, but only slightly amplified tone, at least in the lower and mid registers. The difference between the two registers is based on the difference in tension (Forchhammer, 1937).

6. Resonance

Resonance is a common term in contemporary vocal training. Expressions such as light and dark, high and low, upper and lower resonance, head and chest resonance, mixed resonance are used by several vocal trainers. Unfortunately, not every vocal trainer has a clear idea about the meaning of resonance and the elements of the voice produced by resonance or other factors. Thus, scrutinizing these issues could contribute to their clarification.

Resonance could be briefly described as forced vibrations that occur when the eigen frequency of the excitatory system and the resonator are the same, or as the response of a resonator to a stimulus on its frequency. The quality of the voice is determined by the pitch, timbre, and volume. Although the resonators in string instruments do not affect the pitch, they increase the volume, which is their main function. They significantly alter the timbre of the voice, changing the quality of the voice. The main factor that determines the quality of the voice

is the sound spectrum. In other words, components of different frequencies and amplitudes in the composition make a difference in timbre. The phases of these components play a key role in the development of timbre. However, the difference in the phases plays a minor role, especially for the first few most important sounds. Furthermore, the way the sound of an instrument increases and fades provides significant clues for the auditory system in perceiving the timbre. In other words, timbre is actually a multidimensional psychophysical quantity (Zeren, 2007).

6.1. The Role of Resonance in Vocal Training

Since the skull and chest wall resonance regions are activated when using head and chest voices, the vibrations occur in these regions. But if these vibrations amplify the voice or a section of the voice, then resonance is present. Only when the resonating body tone or its sections are reinforced, we can talk about resonance.

For instance, the wood instrument body and the air in it create the resonance and the resonance chamber in string instruments. Due to the wooden body and the air in the space, the sounds produced by the strings could be very powerful due to the resonance that occurs in these two elements. The vibrations are initially produced in the wooden body via the strings, and then transferred to the air inside the body. In wind instruments where the sound is produced directly in the air, only resonance spaces are used.

Since the mechanism that produces the human voice, which is the most beautiful musical instrument, functions like a woodwind instrument, the resonance cavities, which are the resonator helpers, are not the hard body sections, but the internal cavities. To raise the volume of the voice, the initial key should be low in volume. While producing the tone, the development of strong vibrations that vibrates the internal cavity walls and the dissemination of this resonance to the body surface allow the vibrations to be felt in the skull or chest walls.

The sections that allow resonance in sound production include the larynx, pharynx, sinuses, nasal cavities, soft palate, hard palate, oral cavity tongue, lips and chin. Resonator sections, except for the tongue and soft palate, could differ in shape and size. The resonator sections function to amplify the primary tone created in the vocal cords based on the size and shape of the resonator regions (Cevanşir and Gürel, 1982).

The real voice of an individual is formed by the development of harmonies in the resonance spaces based on the raw voice that exists the throat. Since

the shape of resonant cavities are different, their operation is different when compared to musical instruments; however, the differences in shape increase certain frequencies while eliminating certain others. These frequency densities are called formants. 4 - 5 formants have been identified in singers, and the third formant, which reflects the vocal beauty of a singer, is called the singer's formant. This is where the singer's voice resonates, and the singers, who can develop this formant, could make the listener sitting in the back row of the hall hear her or his voice very clearly despite the presence of a large orchestra (Ömür, 2004).

6.2. Resonator Sections Effective in Vocal Production

The physical resonators that vibrate and create resonance during vocal production are as follows:

6.2.1. Larynx

The larynx is the vocal organ where the vocal cords are located in mammals. The larynx, commonly known as the voice box, is a tubular chamber about 2 inches (5 cm) high, composed of cartilage walls connected by ligaments and membranes, and moved by muscles. The human larynx is the windpipe, also called the trachea. During silent breathing, the vocal cords rest along the walls of the larynx, availing the passage of air. During speech, the cords are stretched along the larynx, the air released from the lungs is forced through the vocal cords, vibrating them and thus producing sounds (Columbia Electronic Encyclopedia [C. E. E.], 2021).

The larynx is divided into three regions based on the level of the vocal cords: supraglottic, glottic and subglottic. The supraglottic region is above the vocal cords. The sections of this region include the epiglottis, aryepiglottic folds, arytenoids, Morgagni ventricles, and false vocal folds. The glottic region is the section where the vocal cords are located. The subglottic region, on the other hand, is the section where the first tracheal ring is located under the vocal cords (Basut, 2003). The Morgagni ventricle, which is located between the vocal cords and false vocal folds, is significant in the production of quality voice (Sabar, 2013).

6.2.2. Pharynx

The posterior wall of the pharynx forms a wall for all sections of the pharynx; the soft palate, the tongue base, and the upper resonator sections are associated

with the nasopharynx, frontal sinus, eustachian tube, and conchae. The spaces between the conchae are the most important resonator regions (Çevik, 1999). The voice resonates and rises in these regions (Sabar, 2013). The nasopharynx, located on the hard and soft palate, covers all nasal cavity, starting from the tip of the uvula. The nasal bridge is located between the two eyes, a little inside, near the olfactory nerves (Sabar, 2013).

6.2.3. Oral Cavity

The tongue in this region plays a role in articulation. The tip of the tongue is effective in the vocalization of letters, and the tongue base is effective in the determination of the soft palate movements. Thus, the physical skill of the tongue is directly associated with the quality of speech (Çevik, 1999). Also in this region, the soft palate and hard palate cover the top of the mouth and separate the nasal and oral cavities. The hard palate is bony and covered with mucous membranes. The soft palate includes muscles and is covered with mucous membranes. The uvula is a protrusion in the middle of the soft palate. The soft and hard palates are moved by a complex system of muscles called levators and constrictors. When these muscles contract, a funnel-shaped valve is formed in the upper pharynx (Cevanşir and Gürel, 1982).

6.2.4. Sinuses

Sinuses are air-filled spaces in the bones around the nasal cavity. The largest, the maxillary sinus, is located between the eyes and palate. Ethmoid sinuses are in the forehead behind the eyes. Furthermore, the sphenoid is located deep in the skull in the posterior upper part of the nose. The mini microphones placed in these cavities in certain studies demonstrated that the sinuses are silent during speech and these studies could not confirm the thesis that the sinuses echo the voice. It was suggested that this was due to the fact that the sound waves could not penetrate through the small sinus holes (Ömür, 2004).

7. Articulation and Diction

Human is a social, social and cultural being in addition to other traits. These traits are the result of the thinking skills of the humans. The human intelligence led to a search for modes of expression and the development of the ability to speak, the proof of human superiority. Speech is the most basic tool that allows the individual to establish a healthy relationship with the environment. It is a legacy audio signaling system introduced by culture. In this system, at

least two individuals could exchange emotions and engage with each other. This environment, where emotions such as pain, sadness, happiness, joy and enthusiasm could be shared, includes a rhythm, harmony and melody specific to the flow of life instead of monotony. The existence of so many emotions led to introduction of songs among the human wealth.

Singing is not only a musical mode of speech, but also music, a vocal art. It is a vocal art that employs not only the tones of music, but also the tones of the human voice, the sounds of the language. Correct articulation and diction are required to properly perform this vocal art. According to Sabar (2013), articulation is the integration of letters and syllables by the speech organs. Diction, on the other hand, is the vocalization of sounds, words, accents, meaning and pauses based on certain rules” (TDK, 2021).

When addressing a large audience, the speaker should specifically plan the speech, where improvisation should not play a major role. However, the voice of the speaker should be lively, and the speaker should not just read the text. However, this requires a pre-established order of thought and commitment to the plan. Particular attention should be paid to pronunciation. The pitch of the speech is increased by a few tones, usually by a third (Luchsinger, 1951).

As the ability to speak in a clear and comprehensible language is improved and developed with language-speech practices, singing practices allow the individuals to acquire the skills to speak with correct punctuation with vowels and consonants, proper meaning and diction (Yiğit & Karakaya, 2006).

In speech that include vowels and consonants, vowels are produced by the air in oral cavity based on the shape of the cavity. Consonants, on the other hand, are produced by the obstruction of the air on the trachea following the larynx. Vocal studies determined thirty-five high tones in a vowel. The consonants are articulated in three locations: Between the lips or the upper teeth: P, B, F, V, M, 2. Between the upper teeth, the tip of the tongue and the anterior hard palate: T, D, R, L, S, Z, S, 3 The tongue base and the soft palate: K and G (Ömür, 2004). The vocal tune up exercises conducted to sing beautifully and effectively start with the vowels, also called vocals, instead of consonants, since they are easy to produce, and this is more beneficial for the trainee/trainer. A vocal that the individual can resonate beautifully and comfortably with the right articulation should be determined and the exercise should be started with this vowel.

It should be noted that when the words in a language could be pronounced differently in songs and normal speech. For example, the consonants are important in speech, while vowels are important when singing. Harmonies, melodies, resonances are emphasized with vowels. For accurate articulation

of the words when singing and speaking, phonetic instruction could be quite beneficial. A vocal trainer can easily determine that the errors were due to certain speech sounds during the detailed analysis of a vocal performance, which are particularly evident at certain volumes or amplitudes. Thus, vocal trainers should be more interested in phonetics, articulation and diction to make an accurate judgment.

8. Conclusion

It is clear that one should with a really good vocal trainer and sing songs that match the vocal tone. One should select a good trainer. The trainer should be an expert, a master in instruction, and possess the qualifications of an understanding and good educator. Because in vocal training, a voice educator who could not do the job well and determine the register of an individual accurately could stress the individual and may cause irreparable problems in the vocal cords and psychology of the individual.

Breathing support is essential to achieve a quality singing tone. When a singer or vocal trainee sings without or ignoring the breathing support, this could lead to a direct distortion of the voice and significant vocal damages in the long run.

The main factor in vocal training is breathing training. It is important to instruct the breathing with the diaphragm and control the inhalation. After the breathing exercises are established, transition to breathing-controlled vocal exercises should be implemented.

The register is not associated with resonance, only the vocal cords are based on various activities. The register is associated with the larynx. The laryngeal movements are minimal in a trained voice, while these movements are obvious in untrained voices.

The vibrations of the vocal cords are different in the chest and head registers.

The best vocal production entails an accurate diction and articulation. The vowel pronunciation rules are completely different in singing when compared to speech.

To achieve a strong and effective voice when singing and speaking depends on deep breathing and the movements of the waist, chest and abdominal muscles that allow to exhale the air in the lungs. It is possible to increase or decrease the volume of the voice by altering the register and respiratory pressure.

A quality singing and speaking voice should be audible, clear, fluent, flexible and aesthetic (for both the ear and the soul).

The exercises should be based on the talent, vocal capacity and the vocal limits of the individual and should not exceed the capacity and avoid a pretentious voice. Furthermore, to improve the vocal quality, the exercises should be long term and systematic.

The employment of the most beautiful form of the human voice depends on natural, noiseless and clear tones in middle registers during speech, and awareness about the unique physiological structure, the musical spirit of the song, and singing with adequate breathing support when singing.

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Image References

Image 1. The image of the trace of tuning fork vibrations on paper. Traces obtained with (a) non-vibrating tuning fork, (b) vibrating tuning fork. Zeren, M. A. (2007). *Müzik fiziği*. İstanbul: Pan Yayıncılık.

Image 2a. Chest Breathing. Downloaded on 16.05.2021 <https://yogalatesblis-sblog.wordpress.com/2017/01/31/yoga-costal-breathing-for-spinal-health-fluidity-100hr-hatha-yoga-teacher-training-feb-24-march-7-2017-dubai-uae/>

Image 2b. Costal Breathing. Downloaded on 16.05.2021 <https://return2health.com.au/articles/unhealthy-breathing/>

Image 2c. Diaphragm Breathing. Downloaded on 27.08.2021 <https://www.angelfire.com/sc/mrcomeau/respiratorynotes.html>