

Aesthetic Education of Elementary School Students: Analysis of Dimensions and Components with a Qualitative Approach

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Purpose: Considering the importance of aesthetic education in students, the purpose of this study was the aesthetic education of elementary school students: analysis of dimensions and components with a qualitative approach.

Methodology: This research in terms of purpose was applied and in terms of implementation method was qualitative from type of exploratory inductive. The research population was specialists and professors of educational sciences of Tehran city in 2020 year, which according to the principle of theoretical saturation the sample size was determined 10 people who were selected by non-random purposive sampling method. The instrument of this research was a semi-structured interview whose validity was confirmed by the triangulation method and its reliability was obtained by the agreement coefficient method between the two coders 0.90. Data were analyzed by open, axial and selective coding methods in MAXQDA-2018 software.

Findings: The results showed that for the aesthetic education of elementary school students were identified 21 indicators in 10 components and 3 dimensions. The dimensions were included constructing learning experiences (with 3 components of reviewing the previous lesson and learning prerequisites, briefly stating the objectives of each lesson and presenting new material along with practice by students), progress in short steps, but at a fast pace (with 3 components of applying an appropriate behaviors with aesthetics features, applying a teaching model and planning for students' learning experiences) and presenting feedback and error correction (with 4 components of applying established learning principles, regular feedback and corrections, performing exercises with clear instructions and guiding students in doing the first exercises).

Conclusion: According to the results of this study, it is necessary to plan for the aesthetic education of elementary school students through the identified dimensions and components.

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1. Introduction

Education has many aspects and today, due to the importance of science and technologies resulting from it and its impact on economic growth and development, they are of particular importance in educational systems, and in recent decades, the role of aesthetic education in the education system has been re-emphasized (Toumajiri & Mehrmohammadi, 2021). The breeding process is actually a social effort to facilitate and direct the striving of existence through which human life continues and evolves. Therefore, paying attention to the nature of human existence reveals the necessity of education. As a result, education is the basic axis of improving human life and should be emphasized in all decisions and social planning of educational and educational purposes (Bilir-Seyhan & Ocak-Karabay, 2018).

The human soul is tender and seeks tenderness and beauty, and beauty has been an important part of human life since it was created. Man's attraction to beauty is due to his affinity with beauty. Because it is of the nature of beauty and that is why it has found art in beauty and beauty in art (Masoumy Shob, Forghani Ozrudi & Sadeghi, 2016). Beauty is one of the important social values with very diverse examples and manifestations, and it is usually emphasized a lot; So that its deprivation can sociologically cause deprivation of many social benefits and psychologically make people suffer from failure and negative consequences afterwards (Wakabayashi, Kitaguchi, Sato & Naito, 2021).

In the classification of Maslow's (1990) motivational theory, different needs were proposed in a hierarchical manner, the lowest of which are physical and psychological physiological needs, and the higher levels are the needs of love and belonging, respect, and self-actualization, and the three high-level needs in the aforementioned theory include cognitive needs. , aesthetic needs and transcendental needs were introduced (Shih, 2018). Aesthetic sense has existed in humans since ancient times, and this sense has always been growing in both individual and social experiences, and humans have always created their artistic creations with lines, colors, movements, words, and shapes in their interactions, has stated (Priem & Mayer, 2017). Aesthetic sensitivity is introduced as the focal point of aesthetic education and aesthetic experience, and lack of aesthetic sensitivity is a sign of dissatisfaction, boredom and monotony in life and tendency to abnormal behaviors. Another important point is that the most important goal of aesthetic education is to expand aesthetic literacy to increase learners' ability to express perceptions, feelings and thoughts through shaping experiences (Chen, 2020).

Aesthetics in all cultures with the same term (Aesthetic) or a slight change in the sense of sense and what is accepted about sense (Unluer & Zembat, 2019). At the beginning, aesthetics emerged as a branch of philosophy, which was related to the philosophical and theoretical study of the perception of beauty and ugliness, and tried to discover whether aesthetic features were objectively embedded in perceived phenomena or existed in the mind of the perceiver (Ling, Xiang, Chen, Zhang & Ren, 2020).

There are many theories about aesthetics, and although some theorists emphasized the importance of human senses in understanding beauty, some other theorists believe that beauty is not a quality in the object itself, but only in the mind that reflects on the object, and for this reason, every A different mind perceives beauty. However, there are other theoreticians who paid attention to both the sense and the human mind in understanding the problem of beauty and consider the perception of beauty to be a simultaneous product of the senses and the human mind (Stefan-Sebastian, 2014). The main aesthetic issue understands the logic of human feelings and emotions and how they can be transmitted. These cases are more apparent in artistic experiences that deal more with the senses compared to other human experiences. Therefore, the subject of aesthetics is a special type of experience that every person has with a phenomenon and a special way of understanding objects and situations that is manifested as excitement in the form of artistic disciplines (Javidi Kalateh Jafarabadi & Abdoli, 2018).

Cultivating aesthetic sense is very important in the education system, because it paves the way for deep thinking and deep understanding. Not all people can become great artists, but they can develop an aesthetic sense and see the world around them as beautiful (Hajiani, Rahmani & Shamshiri, 2020). Aesthetics also has an educational aspect and some defined it as the development of people's taste and feelings towards beautiful

subjects and explained that although aesthetic theory is related to human efforts to objectify their various insights and feelings in different artistic forms, but to the same extent Cultivating human beings who have a harmonious, balanced and beautiful life is also related (Dyganova & Karkina, 2015).

In the transformative documents of art education, subject-oriented is chosen as the main approach, and the approach of receiving feeling and meaning is chosen as the complementary approach to the field of artistic and aesthetic education. Despite the division of education into two types, general and specific, and the fact that artistic and aesthetic education focused on the individual and collective preparation of educators has been introduced in the path of realizing the artistic and aesthetic dignity of clean life, and despite the reference of the national curriculum document to the point that the general direction of this field in organizing Education should be artistic and aesthetic education with an emphasis on achieving cultural insight, but in practice, in the national curriculum, only artistic and aesthetic education is satisfied in the form of a subject-oriented approach, which also allocates the least number of teaching hours compared to other learning areas. The data and place of aesthetic education in the form of general education is still noticeable in the form of the approach of receiving feelings and meaning as the meta-program and spirit governing the lessons (Aghaie Abrandabadi, Mahrouzadeh & Imani Naieni, 2020).

Effective aesthetic training in students can increase their desire to acquire aesthetic experiences and plays an important role in moral and ethical development. Also, this type of education can guide people's value orientation and enable them to perform well in recognizing and evaluating beauty on the one hand, and on the other hand, cultivate people's feelings and make their lives more beautiful. Therefore, it can be said that the goal of aesthetic education of students is to increase their ability to understand and understand the beauty of nature and social life, to develop aesthetic sense and the ability to understand aesthetic facts and feelings, ideas and aesthetic concepts, especially through artistic creativity and the development of creative skills through related experiences, to artistic creation in different fields (Karami & Yusefzadeh, 2018).

Although relatively many researches have been conducted on aesthetics, few researches have been conducted on its cultivation and no research has been found on the analysis of the dimensions and components of aesthetic cultivation. In the following, the results of the most important research related to the current research are reported. For example, Ebrahiminia, Zanganeh Motlagh, Jafarian Yasar & Mohammadi Naeeni (2021) while conducting a research on the analysis of aesthetic education curriculum and identifying educational strategies for its development, concluded that the curriculum units related to aesthetic education need to be revised in terms of number and content, which in this Between the increase of aesthetic education units in the field of education for exceptional children and the inclusion of those units in the curriculum of skill learners, Article 28 is the priority. Based on the results of this research, aesthetic education guidelines include physical aesthetics, aesthetic micro-skills, aesthetic-based methods, student-oriented aesthetic teaching, technology-based aesthetic methods, aesthetic experiences, teacher's aesthetic literacy, general aesthetic strategies and the most important component of aesthetic education strategies. It was combination and diversity.

The results of the research of Hajiani, et al (2020) about the methods of aesthetic education from Hegel's perspective showed that reaching dialectical reflection, the confrontation between beauty and the mind in order to create mental self-awareness, creating creative and innovative arts are among the basic goals of Hegel's aesthetic education, which calls for thinking Contradictory in human consciousness, invoking opposite feelings in dealing with works of art and calling and invoking contradictory content in art are among the principles related to the goal of dialectical reflection. Calling for contradiction, incompatibility and conflict in the idea and engaging the idea with the opposing idea, combining the idea with the opposite of the idea, evaluating the idea and generating ideas are among the methods to achieve this goal and its principles. Achieving the confrontation between sense and mind in order to create mental self-awareness depends on principles such as using sensory materials and elements of nature and transferring it to works of art, which methods of sensory certainty, perception and self-awareness are among the methods to achieve this goal and principles. The goal of creating creative and innovative arts depends on principles such as putting spirit, intelligence, memories, taste and innovation in the work of art, which is the method of creating conflict in

the idea and the evolution of the idea, using genius, imagination and reflecting mental-psychological states, interests, values. And the mentality of the artist in the work of art is one of the ways to reach this goal.

In another study, Unluer & Zembat (2019) reported that the aesthetic education program played an effective role in increasing the development of children's aesthetic judgment. The results of the research of Lilliedahl & Rapp (2019) indicated that although the teachers tried to hold aesthetic courses, but the students showed less interest in aesthetic content. Karami & Yusefzadeh (2018) conducted a research on the practical framework proposed by teachers for the aesthetic education of children and concluded that the goals of aesthetic education include the development of aesthetic sense, imagination, creativity, critical thinking, intellectual and moral development, and beautifying people's lives. The necessity of aesthetic education including changing people's understanding and behavior, developing intra-personal and interpersonal skills, helping meaningful teaching and learning methods, preparing people to participate in a democratic society, transformative learning, helping to develop procedural knowledge and declarative knowledge, developing basic skills needed 21st century, improving the quality of teaching and learning, improving the emotional function of the brain and the development of imagination and creativity, and aesthetic education strategies including creating desirable aesthetic experiences, gaining experiences through different integrated teaching styles, gaining experience through the six subjects of aesthetic representation, gaining experiences Through metaphor and fresh perspective, engaging in strong scientific ideas, cultivating people's perceptive abilities and gaining experiences through engaging in aesthetic activities.

The results of the research of Entezaami, SeyfNaraaghi & Naaderi (2017) indicated that the most important components of art education based on curriculum elements in the experimental science course of the sixth grade of elementary school included developing the senses, creating an aesthetic sense, imagination and creativity. Adamzadeh, Sarmadi, Farajollahi & Esmaeily (2016) came to the conclusion that for multifaceted thinking in aesthetic education, simultaneous attention to reason and thought, external and internal feeling, emotion, faith and acceptance is needed. They stated that paying attention to and strengthening the development of the sensory qualities and aesthetic taste of the learners, along with the development and strengthening of common sense and paying attention to a healthy heart and nature, should be prioritized in the educational system programs. One of the dimensions of human existence that should be taken into consideration in a comprehensive view of him and should be cultivated is the artistic and aesthetic dimension of man. In fact, the research results indicate that the human nervous system, in addition to the ability to learn and process stimuli through logical and reasoning channels, also has the capacity to learn through emotion and attention, and attention can also lead to learning and problem solving. Therefore, it should be noted that aesthetics has a wide range that starts from movement and leads to emotional growth and finally leads to the growth and flourishing of attention (Aghaie Abrandabadi et al, 2020).

Another important point is that one of the important goals of the education system, which has always been neglected, is the development of students' aesthetic abilities (Karami & Yusefzadeh, 2018). Another important point about the importance and necessity of the current research is that one of the existing gaps was the lack of research on the analysis of the dimensions and components of aesthetic education. Although relatively many researches have been conducted on aesthetics, few researches have been conducted on its cultivation and no research has been found on the analysis of the dimensions and components of aesthetic cultivation. Therefore, the above cases prompted the researchers to analyze the dimensions and components of aesthetic education in a research. As a result, the aim of this research was the aesthetic education of primary school students: the analysis of dimensions and components with a qualitative approach.

2. Methodology

This research was applied in terms of purpose and inductively exploratory in terms of qualitative execution method. The research community was the experts and professors of educational sciences in Tehran in 2020, and according to the principle of theoretical saturation, the sample size was determined as 10 people who were selected by non-random sampling method. The purpose of using the purposeful sampling method is to

select people who can help the researchers in obtaining data and information as a sample according to the criteria of the researchers. The desired criteria in the present study, which were determined by the researchers, included having a book, article, research project or thesis guide or treatise related to aesthetic education, having at least 10 years of experience and willingness to participate in the research. Since theoretical saturation is the criterion for completing the sampling to reach saturation in data and information, the research reached saturation after interviewing the ninth person, but to be sure, an interview was also conducted with the tenth person.

The method of conducting the research was that after the approval of the proposal, the resources related to aesthetic education were reviewed and based on them; four questions were designed for the interview with the help of professors. Then, with the help of professors, sampling was done and the importance and necessity of the research was explained to the samples by phone or in person and they were asked to express their consent to participate in the present research and interview and sign the related form. After that, the conditions of the interview, including the place and time of the interview, and the conditions of the interview, including the recording of all the interviews, were coordinated for re-examination, and at the predetermined time and place, the interviewer and the interviewee (samples) were present, and the questions were asked one by one to the interviewees. And in addition to noting the key points of the interviews, the interviews were recorded with the help of a tape recorder to review and complete the notes. The interviews were conducted according to the questions and at the end the interviewees were honored with a gift.

The main tool of this research was a semi-structured interview that had four questions. Interviews were conducted individually and questions were asked to the interviewees one by one, and in addition to noting the key points, the interviews were also recorded. It should be noted that in order to make sure that the interviewer has a correct understanding of the information of the interviewees, the information of the interviewees was presented in a summary form and they got their approval. In general, the average duration of the interview with each person was about 30 minutes. The validity of the interviews was confirmed by the triangulation method and its reliability was obtained by the agreement coefficient method between two coders of 0.90. The secondary tool of this research was the demographic information form including gender, education, age, marital status and years. Finally, the data obtained from the implementation of the demographic information form were analyzed using the frequency and percentage frequency method and the data obtained from the interviews were analyzed using the open, central and selective coding method in the MAXQDA-2018 software.

3. Findings

Demographic information collected in this research included gender, education, age, marital status, and years of age, the frequency and percentage of which are presented in Table 1.

Table 1. Results of the frequency and frequency percentage of the demographic information of the samples, including gender, education, age, marital status and years

Variables	the floors	Abundance	Frequency
gender	Man	7	70
	Female	3	30
education	Masters	1	10
	P.H.D	9	90
Age	40-36	2	20
	41-45	5	50
	46-50	2	20
	Above 50	1	10
Marital status	married	8	80
	Single	2	20
years	15-11	1	10

20-16	3	30
25-21	4	40
30-26	2	20

As can be seen in Table 1, most of the samples of this research are male (70 percent) and have a doctorate education (90 percent), age 41-45 years (50 percent), married (80 percent) and have 21-25 years of age (40 percent) were The information of the interviews collected in this research by classification coding method and its results were presented in Table 2.

Table2. The results of the interviews collected by the coding method

Dimensions	Components	Indicators
Constructing learning experiences	Reviewing the previous lesson and learning prerequisites	1. Drawing students' attention to tasks and 2. Expressing appropriate expectations
	A brief statement of the objectives of each lesson	1. Asking lots of questions and active and open practice and 2. Directing the flow of class affairs without wasting time
	Providing new material with practice by students	1. Provide many explanations along with mentioning details and 2. Many exercises for students' activity
Progress in short steps, but at a fast pace	Applying behaviors appropriate to aesthetic characteristics	1. Aesthetics, the development of awareness and sensitivity towards aesthetic features and 2. Attitudinal backgrounds and its goals and applications in art.
	Using the teaching model	1. Necessary fields for acquiring other talents and 2. Frequent assessments in the classroom
	Planning for student learning experiences	1. Principles and rules of styles and drawing students' attention to tasks and assignments and 2. Drawing students' attention to school assignments
Provide feedback and correct errors	Applying established principles of learning	1. Reason and intellectual intuition as a much more comprehensive faculty than reasoning and thinking, 2. Using clear behaviors in explaining the contents and phenomenology of art, and 3. The established principles of learning.
	Regular feedback and corrections	1. Implementing continuous monitoring and 2. Asking many questions in the classroom
	Doing exercises with clear instructions	1. Setting the space and dividing class time and 2. Dividing homework into smaller parts
	Guiding students in doing the first exercises	1. Establishing a personal relationship and intimacy with students and 2. bringing disruptive students

As can be seen in Table 2, 21 indicators in 10 components and 3 dimensions were identified for the aesthetic education of primary school students. The dimensions include the construction of learning experiences (with 3 components of reviewing the previous lesson and prerequisite learning, briefly stating the goals of each lesson and presenting new materials along with practice by students), progressing in short steps, but at a fast pace (with 3 components of applying behaviors appropriate to the characteristics aesthetics, using the teaching model and planning for students' learning experiences) and providing feedback and correcting errors (with 4 components of applying established principles of learning, regular feedback and corrections, doing exercises with clear instructions and guiding students in doing the first exercises). The results of the dimensions and components collected by the coding method were presented in Figure 1.



Figure 1. The results of the dimensions and components collected by the coding method

4. Conclusion

All-round and correct education of human beings play an important role in realizing the material and spiritual goals of that society, and in the current situation where educational systems are responsible for teaching, learning and raising the new generation, the curriculum is a platform for action. Aesthetic education plays an important role in the success of the education system, and for this reason, the purpose of this research was aesthetic education of primary school students: analyzing dimensions and components with a qualitative approach.

The results of this research showed that 21 indicators were identified in 10 components and 3 dimensions for the aesthetic education of primary school students. The dimensions include the construction of learning experiences (with 3 components of reviewing the previous lesson and prerequisite learning, briefly stating the goals of each lesson and presenting new materials along with practice by students), progressing in short steps, but at a fast pace (with 3 components of applying behaviors appropriate to the characteristics aesthetics, using the teaching model and planning for students' learning experiences) and providing feedback and correcting errors (with 4 components of applying established principles of learning, regular feedback and corrections, doing exercises with clear instructions and guiding students in doing the first exercises).

Although no research was found on the dimensions and components of students' aesthetic education, the results of this research are in some ways similar to the results of Ebrahimi et al (2021), Hajiani et al (2020), Unluer & Zembat (2019), Lilliedahl & Rapp (2019), Karami & Yusefzadeh (2018), Entezaami et al (2017) and Adamzadeh et al (2016) agreed.

According to the indicators, components and dimensions identified for it, the aesthetic approach can be useful and appropriate in solving some educational problems. Aesthetic education not only deals with softening emotions, but as an epistemological field, it can play an effective role in enhancing insight and balance in human emotions. Aesthetics is one of the issues that thinkers of various scientific fields, including philosophers, artists, and psychologists, paid special attention to, and although each of these fields looks at aesthetics from a specific point of view, it shows their attention to aesthetics and its importance and complexities. Education based on aesthetics can be a solution to restore harmony between different aspects of students' personality. The examination of global experiences also confirms the importance of paying attention to the aesthetic concept and its application in the learning process of students, and the importance of this issue in the educational system also comes from the fact that aesthetic education is in the creation and fertilization of constructive fields such as the emergence of creativity and innovation, the development of intellectual and cognitive skills. And nurturing and adjusting emotions and feelings, making deep changes in individual behavior, moral growth, increasing self-confidence, and developing different skills have a tremendous role and impact. Therefore, in various intellectual, political and religious schools, art is viewed as an efficient tool in the development of various concepts and knowledge in the society.

In addition, it should be said that in fact, aesthetic education is the same as the education of aesthetic experiences, which refers to the element of pleasure in every human experience. Therefore, all forms of teaching and learning can be considered different aspects of aesthetic education. The findings of the present research confirm the fact that the education and learning based on indicators, components and aspects of aesthetic education such as drawing students' attention to tasks, aesthetics, the development of awareness and sensitivity towards aesthetic features, the use of clear behaviors in explaining the content and the phenomenology of art, the necessity Asking a lot of questions in the classroom, dividing the homework into smaller parts for better understanding of the students, establishing a personal relationship and intimacy with the students, implementing continuous supervision, reason and intellectual intuition as a much more comprehensive faculty than reasoning and thinking, etc. and in the teaching process, teaching and learning should be combined and the teacher should try to focus on the goals of the cognitive field by paying attention to and highlighting the emotional and skill fields of the students, the attitude of the students towards the school and its effective factors will improve in the same proportion, and the field of aesthetic development and development in More students are provided.

Every research has a series of strengths and a series of weaknesses or limitations, and as the most important strength of the current research, we can point out the analysis and identification of the dimensions and components of students' aesthetic education, which has not been researched until now. Also, among the most important weaknesses or limitations, we can mention the use of targeted non-random sampling method, the small sample size for conducting interviews and the time-consuming nature of this research. Of course, the use of targeted non-random sampling method is considered a good feature and a strong point in that it can help the researcher to obtain comprehensive information, but since the probability of sampling error is higher than random sampling methods, it is a weak point. And it is considered a limitation. One of the important research suggestions is to increase the sample size for conducting interviews or analyzing the dimensions and components of aesthetic education in first or second year high school students and comparing their results with the results of this research.

The findings and results of this research have practical implications for education specialists and officials. According to the results of this research, it is necessary to plan for the aesthetic education of primary school students through the identified dimensions and components. Therefore, it is suggested that teachers' attitudes and skills regarding the importance of paying attention to aesthetic aspects and components in the process of teaching, training and learning be developed through educational workshops. Another practical suggestion is to fundamentally revise the approach of training student teachers in the country and change the curricula of the educational universities in order to pay attention to teaching and education based on aesthetics. Another suggestion is to include spirit in the content of textbooks by paying attention to the indicators, components and aesthetic dimensions identified in this research. Another suggestion is to pay attention to aesthetic education in evaluation. In the approach of aesthetic education, the evaluation levels are not limited to the exam, but are comprehensive and focus on all the activities, behaviors and comprehensive functions and on all the characteristics of the students, including feelings and emotions, the level of interest and attitude, knowledge and the way of behavior, which is comprehensive with the participation of the students, classmates, teachers, parents and other executive staff of the school. The last suggestion is to change and improve the existing educational spaces in schools according to the indicators, components and dimensions of aesthetic education.

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References

- Adamzadeh E, Sarmadi MR, Farajollahi M, Esmaeily Z. (2016). From Allama Tabatabaee's epistemology to multidimensional (multifaceted) thinking in aesthetic education with a glance at the Holy Quran. *Journal of Educational Doctrines in Quran and Hadith*. 2(1): 113-130. [Persian]
- Aghaie Abrandabadi SE, Mahrouzadeh T, Imani Naieni M. (2020). An artistic and aesthetic education approach, a subject-based approach or an approach to feeling and meaning. *Research in Curriculum Planning*. 17(2): 1-11. [Persian]
- Bilir-Seyhan G, Ocak-Karabay S. (2018). Early childhood pre-service teachers' views about visual arts education and aesthetics. *Eurasian Journal of Educational Research*. 73: 131-148.
- Chen YT. (2020). An investigation of young children's science and aesthetic learning through a science aesthetic thematic curriculum: A mixed-methods study. *Australasian Journal of Early Childhood*. 45(2): 127-141.
- Dyganova EA, Karkina SV. (2015). Person oriented aesthetic education in the system of life-long music education. *Procedia – Social and Behavioral Sciences*. 191: 1750-1753.
- Ebrahimi A, Zanganeh Motlagh F, Jafarian Yasar H, Mohammadi Naeeni M. (2021). Analysis of aesthetics education curriculum and identification of aesthetic education strategies in Farhangian University. *Journal of Teaching Research*. 8(4): 164-192. [Persian]
- Entezaami M, SeyfNaraaghi M, Naaderi E. (2017). Art education through the constituent elements of science curriculum. *Quarterly Journal of Education*. 33(1): 75-92. [Persian]
- Hajiani F, Rahmani J, Shamshiri M. (2020). Explaining the methods of aesthetic education from the viewpoint of Friedrich Hegel and its educational implications. *Scientific Journal of Educational Research*. 15(61): 25-48. [Persian]
- Javidi Kalateh Jafarabadi T, Abdoli A. (2018). Aesthetics and art from Maxine Greene's view and its educational implications. *Journal of New Educational Approaches*. 12(2): 21-45. [Persian]
- Karami Z, Yusefzadeh MR. (2018). Proposing an applied framework for teachers to develop aesthetics in children with an emphasis on aesthetic discourses of Dewey, Steiner, and Vygotsky. *Journal of Teacher's Professional Development*. 3(1): 79-104. [Persian]
- Lilliedahl J, Rapp S. (2019). The status of aesthetic education in a revised centralized curriculum: a theory-based and content-oriented evaluation of the Swedish curriculum reform Gy11. *Nordic Journal of Studies in Educational Policy*. 5(1): 43-53.
- Ling Y, Xiang J, Chen K, Zhang J Ren H. (2020). Integrating aesthetics education into chemistry education: Students perceive, appreciate, explore, and create the beauty of chemistry in scientific photography activity. *Journal of Chemical Education*. 97(6): 1556-1565.
- Masoumy Shob M, Forghani OZRudi MB, Sadeghi M. (2016). Relationship between service quality and aesthetic dimensions with customer's loyalty. *Sport Management Studies*. 7(34): 91-112. [Persian]
- Priem K, Mayer C. (2017). Learning how to see and feel: Alfred Lichtwark and his concept of artistic and aesthetic education. *Paedagogica Historica: International Journal of the History of Education*. 53(3): 199-213.
- Shih YH. (2018). Aesthetic education for young children in Taiwan: Importance and purpose. *International Education Studies*. 11(10): 91-95.
- Shih YH. (2020). Teaching principles for aesthetic education: Cultivating Taiwanese children's aesthetic literacy. *International Journal of Education and Practice*. 8(3): 568-576.
- Stefan-Sebastian M. (2014). Schiller's aesthetic freedom and the challenges of aesthetic education. *Procedia – Social and Behavioral Sciences*. 163: 169-178.
- Toumajiri M, Mehrmohammadi M. (2021). [Aesthetic understanding of the nature of science and its implications for science education](#). *Foundations of Education*. 10(2): 46-66. [Persian]
- Unluer E, Zembat R. (2019). Examining the effects of aesthetic education program on aesthetic judgment development of five-year-old children. *Asian Journal of Education and Training*. 5(1): 44-49.
- Wakabayashi M, Kitaguchi M, Sato H, Naito T. (2021). Experimental verification for perceptual and cognitive processing of visual aesthetic experiences. *Vision Research*. 185: 68-76.