

Original Research Article

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آموزش نقاشی به کودکان با بهره‌گیری از نظریه اجتماعی-فرهنگی «منطقه مجاور رشد» ویگوتسکی

Teaching Painting to Children Using Vygotsky's Sociocultural Theory of «Zone of Proximal Development»

Abstract

Problem Definition: The child's painting is a subset of his various activities in children's art. The central taste of this type of activity, which has always been associated with children's games, has challenged the artistry of this activity. While considering the mentioned challenge, painting is an activity aimed at improving children's thinking and creativity, and in this regard, it is necessary to be studied educationally. Therefore, in the present study, an attempt is made to use Vygotsky's «theory of development» to answer the question of «How to teach drawing to children so that their creative activities are not harmed in the natural path of development»?

Objective: From the above-mentioned point of view, children's tasteful and creative activities in painting may be exposed to educational damages with incorrect training. Having the aim of preventing possible damages, one of the effective theories on the development and achievement of children is the evaluation index of this educational activity to witness favorable exploitation in this field.

Research Method: The present study is based on fundamental theoretical research (Vygotsky's socio-cultural theory of «Zone of Proximal Development») and is of a descriptive-analytical type. The research is included in the group of qualitative investigations. The painting will be taught, and after analyzing and presenting 33 painting samples selected from over three thousand works, a suitable educational solution will be suggested.

Results: The findings of this research show that children who, according to the mentioned theory, have faced the mediation and proper training of parents and trainers in teaching painting. Accordingly, they have presented painting works beyond their current level in a social process in line with the natural process of development.

Keywords

Art Education, Children's Painting, Zone of Proximal Development, Vygotsky, P4C

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Introduction

The wide dimensions of human personality require that those involved in education in various fields and majors should not rely merely on the knowledge of experts in one discipline and use the information and opinions of experts in disciplines related to the subject and educational discussion in question. Therefore, the use of interdisciplinary sources and opinions for educational purposes is one of the important goals that has been considered in this research. According to the mentioned goal, this research seeks to prevent possible harm in art education by applying one of the famous theories of education, «Vygotsky's theory of Zone of Proximal Development», and to meet the needs of educators and those interested in teaching children's painting. In the aforementioned theory, Vygotsky believes that the greatest learning of a child occurs in the range within minimum and maximum mental ability. By proposing this concept, he refers to tasks that the child cannot handle alone due to lack of experience while with the help of more skilled people, trainers, parents, and more knowledgeable peers, he can do them. When the discussion of education in a subject or discipline is raised, «What are the educational materials and resources», and «Who are the audience and the trainer of that type of education» are asked. In training that requires a trainer, the manner and quality of the trainer's presence will be defined according to that educational field, so that under- or over-training in education does not harm the children. In teaching drawing to children, which is the subject of the present research, it is assumed that the student is a child who needs a trainer or a helper to learn painting. It is obvious that the trainer or parents need specialized information and knowledge of painting to teach this art, and of course, besides that, they need to obtain information about the characteristics of this age group in order to communicate with children. They should at least benefit from technical and professional knowledge about painting following the age of the child and have knowledge and skills in this field and know that the purpose of teaching art and painting to children is not to make them artists. They also should realize that pursuing effective educational goals in socialization, mind development, creativity and thinking of children is more important than the work that students create as a painting with artistic methods. On the assumption that child educators have this knowledge and basic skill in teaching art methods to learn painting, the necessity of this research is to deal with a specialized and educational subject to prevent possible harm and show where the limits of education are for educators and parents who are aware of the generalities of art education and education so that their education is not considered as unintentional interference in the work and development process of children. Therefore, as it was said, in the current research, an attempt is made to use Vygotsky's theory of development to answer the question of «How to teach painting to children so that children's creative activities are not harmed in the natural path of development»? In other words, this research aims to determine the boundaries, guidance, or interference in children's work for educators, workers, and scaffolders who communicate with them directly or indirectly in painting education, from Vygotsky's sociocultural theory of the Zone of Proximal Development.

Research Method

The current research is based on theoretical and descriptive-analytical fundamental research and is included in the qualitative research category. Based on the theoretical, library, and electronic resources and workshop experiences in teaching children's drawing classes, this research explains a theory and its effect in teaching painting to children with a theoretical approach and a practical view. The samples provided and analyzed in this research include

33 paintings and they were selected from the writer's personal and workshop collection with over 3000 paintings of children between 4-14 years old. The level of involvement of the trainer in these samples is following the theory discussed in this research. Of course, it should be mentioned that various samples in this collection have been chosen under the mentioned theory, but because of the length of the article, limited samples have been provided.

Research Background

Vygotsky's theory and sociocultural perspective and its explanation by different researchers are considered the main backgrounds of the current research, which are discussed in this section. These studies are generally in the field of developmental psychology and have been repeated and proven numerous times, and the guidelines for working on the general issue of education and training in children's age groups have been presented from this point of view. However, these studies lack background and information about art education. Therefore, this research intends to use this theory with a specialized approach to the subject of teaching children's art and painting. In line with the present research, in an article entitled «Examination of Vygotsky's Theory from the psychology perspective and its connection with the theoretical foundations of teaching philosophy to children», «Rashtchi» (2010) examined the theory of Zone of Proximal Development. In this article, after reviewing some theories about child language development, the researcher has taken a special look at Vygotsky's view on language development and thinking, and their relationship with each other. In this article, she used Vygotsky's theory in the interpretation of the relationship between language and thinking and explained from the perspective of the Zone of Proximal Development and mediation that this theory is effective in the process of teaching philosophy to children (P4C¹). This author has also examined the association of Vygotsky's theory with the basics of the philosophy program for children, children's education, the role of education in improving their thinking process, and the social role of language in promoting children's thinking from various dimensions. She believes that examining Vygotsky's theories explains the necessity of teaching philosophy to children, and this theory is one foundation that are compatible with the teachings mentioned in this program. In this article, there is no mention of art education. «Lurii» (1989) also in the book entitled «Language and Mind of the Child, in the Stages of Development», in the linguistic theories which are considered as the foundations of Vygotsky's socio-cultural theory of proximal development, explains that a person has to go through the animal stage, which is the stage of development of higher neural processes and the product of individual experiences. Because of acquiring the experiences of others, near society, the mind evolves and enters the human stage. In this book, he describes experiments to prove that the child reaches linguistic and mental development compared to individual experiences in a collective relationship and through objective forms of reflection of events and with the cooperation of adults. Another study, in a book entitled «Early childhood curriculum suitable for students and trainers» conducted by «McLachlan, Fler, & Edward» (2018) simply explained Vygotsky's Zone of Proximal Development. These explanations have been used more in explaining Vygotsky's theory in the current research. Also, in a relatively related article entitled «Necessity of art mediation in teaching philosophical thinking to children», «Sodagar» (2011) discussed the necessity of art mediation in teaching children's thinking. In order to advance the programs of teaching philosophical thinking to children, this article considers art as a medium and a tool that helps to facilitate the reasoning of children in P4C

programs. Also, in this article, it is explained how art can make the abstract resources of P4C for children's education tangible and accessible to them through art. Finally, this research proposes to benefit P4C from art instead of wisdom because he considers children's art education as their intellectual training. In the studies found, where relevant samples were given, there is no discussion of painting education. However, the above interpretations of Vygotsky's theory (the influence of the trainer's mediation in education) and his expanded theory in terms of the current research, of them are considered a model for the effective interaction between trainers and those around the child in his education and development. Based on these interpretations, painting instructors can choose ways to help their students without creating harmful obstacles in the path of the natural development of children and other students, and guide and direct the child or student from their current level to a level beyond what they are.

Vygotsky's Sociocultural Theory (Zone of Proximal Development)

«Lev Simkhovich Vygotsky» (1896-1934) was one of the prolific and prominent Russian psychologists who worked in language and language development and believed that acquiring knowledge is a product of social development. This scientist is an expert in various scientific fields, such as linguistics, psychological analysis of art and literature, and child psychology. Vygotsky presented his thesis on the psychology of art in 1925 and died of tuberculosis in Moscow in 1934 at the age of 38. In the field of cognitive development, he is a prominent theoretician who refers to internal and external forces (Crain, 2005, 283-285). Vygotsky believes in the theory of the Zone of Proximal Development that the child's greatest learning occurs in the range between his minimum and maximum mental ability. By proposing this concept, he refers to tasks that the child cannot handle alone due to lack of experience while with the help of more skilled people, he can do them (Hedayati, 2009). Also, in another sense, according to Vygotsky, «the Zone of Proximal Development is the distance between the current level of development, which is explained by independent problem solving, and the potential level of development, which is achieved through problem-solving with the guidance of adults or cooperation with more capable peers» (Crain, 2005, 312).

Examining Vygotsky's Point of View in the Theory of Zone of Proximal Development

Various interpretations of Vygotsky's point of view have been developed so far on the Zone of Proximal Development. The generality of these perceptions, in a common way, considers the people around the child, including peers, adults, and trainers, to contribute to his sociocultural development. However, what on which the current research is focused is the role of trainers in this event and the process and how they influence it. One of the most important of these views is that some have considered the Zone of Proximal Development (Diagram 1) as a measurement method (McLachlan et al., 2018). With this view, Vygotsky's Zone of Proximal Development focuses on the development of the child and what he can do with the guidance of an expert. Instead of focusing on what children can do now without the help of others, this view of assessment focuses on what they can achieve on their own in the future. From this point of view, teaching and assessment are completely connected. From the second point of view, the Zone of Proximal Development is proposed as scaffolding in the sense of designing a path for the child, modeling, clear instructions, questions, and discussions about assignments, and in the third point of view, the Zone of

Proximal Development as cultural knowledge refers to the distance between the child's daily experiences and his cultural knowledge set, which can be predicted in the official curriculum. From the fourth point of view, the Zone of Proximal Development is interpreted as collectivist learning. This interpretation of the Zone of Proximal Development considers an active role for the learner and defines it as a distance between the learner's formal knowledge and types of learning. This learning, which is made in the group, often occurs in the teaching process and the child's encounter with learning. This view claims that «children are never able to learn by themselves, and this knowledge never fits into the framework of a person's brain alone; knowledge is collectively constructed, implemented, and given meaning in a social context. For example, in a study conducted by «Fleer and Richardson», a group of young children of different ages and abilities sat next to each other at a drawing table. Older children wrote their names, some younger children wrote some letters that were the first letters of their names, and a two-and-a-half-year-old looked at them and then drew signs on the paper. What happens to children shows how this community of writers (children of different ages) becomes a group that is aware of the concept of writing and tries to learn its knowledge. One child writes a letter on another child's paper, the younger child adds a few more letters they are familiar with, and both children make up a story together. The trainer notices what is happening and asks the two children to talk about their story. The younger child tells him what the words say, and tells what they mean in his story, then the older child adds things by reading the words. The older child moves to another place where the younger child says: I can't say anything else, but I can tell you more about it when my friend comes back» (McLachlan et al., 2018 as cited in Fleer & Richardson, 2004).



Diagram 1. Zone of Proximal Development

Source:

<http://mahdekoodakan.com>.

In the fifth point of view, which is considered to be a kind of completion of Vygotsky's theory of Proximal Development, the concept of the Zone of Proximal Development has been expanded. In these interpretations, Vygotsky added the «Zone of Potential Development» (Diagram 2) which is wider than the Proximal Development and was further conceptualized by others.

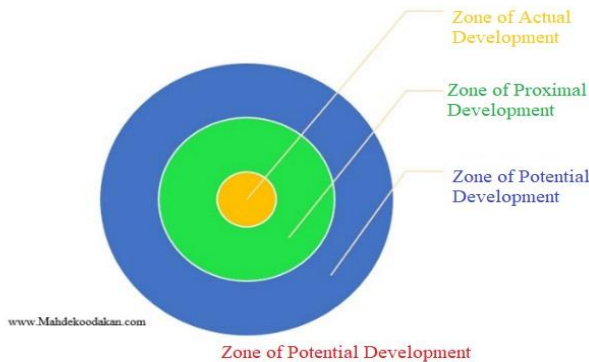


Diagram 2. Zone of Potential Development.

Source:

<http://mahdeKoodakan.com>.

The Zone of Potential Development, from another point of view, can be generalized to the entire community of learners and is said to complement Vygotsky's opinion about children's learning and refers to the future of their learning. Vygotsky personally hoped to provide educators with a better index to recognize the child's real potential capacities with the approximate development domain plan (Crain, 2005, 312). «The community of learners well represents the developmental zones introduced by Vygotsky and described by others. The youngest child draws marks on the paper. This child does not write anything, only in his work there is evidence or potential for writing because this child is placed in a context in which other children draw his attention to his ability and potential to learn to write; As Vygotsky (1987) said, this is the future and it is education that begins before transformation» (McLachlan et al., 2018). By examining the explanations given about the Zone of Proximal Development and the Zone of Potential Development and the views raised above, it can be said that these theories are of more interest in this article because they can be generalized to the entire community of learners; Therefore, to benefit from this theory, it is necessary to look at painting and art education for children from this perspective.

Art and Teaching Painting to Children

In various topics of psychology, various theories about child development have been presented that explain different aspects of human development. Child development theories usually provide a framework for thinking about human development and learning. Some of these theories are known as the main theories of child development. They describe different aspects of development and generally take a step-by-step approach. Some of these theories are also known as sub-theories that focus only on aspects of development such as cognitive development or social development. A group is interested in inner development and self-motivated learning and pays attention to the theoretical and practical aspects of development. On the other hand, another group has focused more on environmental influences on development. On the other hand, thinkers have sought to integrate the effects of cognitive and social development. Among the opinions and theories of development, what is intended in this research is Vygotsky's balanced and unifying theories of development, which will be explained for the benefit of teaching painting. In the present research, children's painting and determining its educational limits from the perspective of Vygotsky's theory have been discussed, mainly by examining two major and popular viewpoints in teaching drawing to children, one from the perspective of developmental psychology and the other from the popular educational dominant point of view throughout the history of art and various current schools. It should be noted that each of these views

has opponents and supporters at all levels of art education at all ages and levels. Especially, this difference of opinion in the education of children's art and painting is more prominent because of the possible harm caused by the trainer to children in the education of art.

The first point of view, the trainer's non-interference in children's drawing. Proponents of the first point of view generally believe that «the traditional psychological approach to children's painting leads to the conclusion that it should not take much effort to formally teach children drawing and painting techniques. Many developmental psychologists, such as «Harris» (1963) and «Piaget and Inhelder» (1969), who have dominated the traditional thought in the field of children's painting, have not paid much attention to the drawing process. The consequence of this view is that there is no need to teach painting. Because as children age, their more mature ability will automatically pave the way for further development of mental images, and this process will in turn lead to drawing better images, and they generally agree that a kind of free and «facilitating» approach but non-directive is the most appropriate way to teach children painting. The recommendation of this tradition is that imitation (copying) should not be encouraged» (Thomas & Silker, 1991, 221).

The second point of view, following the trainer's instructions to acquire skills. In a general view, to teach something in the art area, it is necessary to learn techniques and methods and to see patterns in painting and other arts from the trainer to the student. Students of any age need a trainer's help. Countless books on these patterns and how to work based on them are available. Most of these patterns lead to copying by the student in an extreme way. This copying becomes an obstacle to children's creativity until the age when the trainer is not allowed to set definitive instructions for the student (4-9 and up to 12 years old). Opinions supporting children's benefit from trainer's instructions and guiding models in art education indicate that the formulas discovered by art professors in drawing, painting, and teaching techniques play an important role in the development of students' art. From this point of view, "copying is not as harmful as some new experts think; For example, Gardner has noted that copying may also play a constructive role in the acquisition of artistic skills; Because it is a means to achieve more accurate representations. The results of some studies show that children copy anyway and regardless of their trainer's opinion» (Thomas & Silker, 1370, 221). According to some researchers, those who were the most against copying considered children's painting as a form of art in which self-expression is important, while those who gave a role to copying were more concerned with learning painting techniques by children (Thomas & Silker, 1991, 223).

In the comparison and analysis of these two views, the result showed that it seems Vygotsky's theory is the mediator and determines the border between these two views. Although it is considered a criticism of Piaget's opinion or completion of his opinion, it can be a way forward for educators and those involved in the education of children's art. In a way, Vygotsky determined the limits of the trainer's intervention and how to use and utilize the guidance and instructional manuals, and for this reason, he has reduced the differences of opinion in the way of teaching painting to children.

Child and Childhood

From Vygotsky's socio-cultural point of view, as well as from a cultural-educational point of view, the conceptualization of childhood, as a social phenomenon, is a forgotten or ambiguous necessity. In simple language, our familiar child is still strange and unknown to us. Nature wants children to be children before they become adults. Therefore, it is necessary to pay special attention to the social structure in which the child grows while

recognizing the natural needs of this age (Jenks, 2009, 20-12). Vygotsky's socio-cultural theory, while recognizing the natural state of childhood development, pays attention to this social structure. According to the natural period of development, in the Universal Convention on the Rights of the Child², until the age of eighteen is childhood. But the child in question in this research is the one who can draw on any surface and with anything from around the age of two to the activities that are at the age of natural development of children's art up to the end of fourteen. Also, the education in question is a child-centered approach. From this point of view, art consists of explaining the changes of the child in the process of his development. They look at the child as a person whose artistic expression reflects the place of his life and the way he relates to the environment around him. The child-centered approach is based on developmental psychology and proposes the theory of child development in art. Art education, which is based on the aforementioned theory, uses the stages of child development as guidelines and strategies for designing art education programs (Gaudelius & Speirs, 2011, 23).

Children's Art

The works that children do during their natural development within the scope of artistic activities can be called «art» from the perspective of expressing feelings and emotions (expressing, drawing, or expressing what they have seen and heard), creative explanation, and the use of artistic tools and equipment. However, from the perspective of a stage of natural development in childhood, because children unknowingly draw these roles in their natural development process (like any other natural work during the general development period, such as learning a language, etc.), they are not considered «art» because they are not compatible with the criteria of defining art which is based on human consciousness and intention. In the stage of natural development, children unknowingly and playfully express their feelings in designs, colors, patterns, and other actions. They use various tools and equipment at their disposal, including tools for creating works of art or other daily life tools, to explore their surroundings, practice living and learning, and in this way, they are willingly or unwillingly exposed to the judgment and actions of adults. Therefore, the performance of adults, whether parents or trainers, affects the child's continuous behavior, and that is why it is important and needs to be taken care of. In this collection of behaviors and games, painting is the most famous part and sub-category of children's art by them, and among other arts that are known as children's art (pottery, handicrafts, etc.), it has a special generality and extension in different dimensions. Therefore, many parents, educators, psychologists, and researchers are trying to get to know him beyond children's drawings; it is as if a child's painting is a mirror that reveals all the personality traits of this young being, a mirror that may be destroyed by the carelessness and ignorance of adults, including parents and trainers. On the other hand, appropriate and conscious action toward this character mirror may have a significant contribution to improving the child's personality and thinking. The author's experiences in the educational classes have shown that when children's drawings are criticized, they consider this to be their personality and are strongly affected, whereas when criticism is introduced to the works of adults, they seek to improve or strengthen that skill or defend themselves. Adults do not realize the problem and want to review their works to learn more; Therefore, encountering children's works can be considered as encountering them themselves. As a result, it is necessary to manage this situation consciously and to develop the child's personality by making the necessary use of this feature in his comprehensive education.

Children's Painting

From a psychological perspective, some child art researchers believe that children's painting is an activity whose evolutionary significance has yet to be overlooked, and their reason why painting should be considered important is that child painting is a complex cognitive activity that appeals numerous children and they engage in it on a wide scale. The cumulative effects of painting together with other forms of play can have a significant effect on the development of early childhood intelligence and increasing ability in a range of activities in later years (Thomas & Silker, 1991, 232-3). From this point of view, children's painting can be studied in at least three areas of child psychology, including the psychology of emotional expression (measurement of personality and emotional compatibility), the psychology of writing (learning to write), and the psychology of thinking (Painting is a product of thought). In the psychology of thinking, drawing a picture by a child is a complex achievement, and according to «Freeman», it is a cognitive task worthy of attention. Painting is a product of thought and its facilitator (Thomas & Silker, 1991, 230). During natural development, the development stages of a child in the painting, according to the opinion of «Victor Lowenfeld», happen in successive stages. From 2 to 4 years of age, infants draw randomly, and from 4 to 7 years of age, doodles, colors, and shapes become symbolic and schematic control. From 7 to 9 years, they describe their surroundings, and from 9 to 12 years, they turn to realism. At the ages of 12 to 14, the natural development of children's art ends when they engage in the stage of naturalism to understand proportions, depth, and color changes, and it is necessary to engage in skill training at this stage (Gaudelius & Speirs, 2011, 25).

Discussion and Analysis of Samples

As it was said, painting is a way of expressing the mentality, and as a result, of the child's thinking. This way of expression will undergo normal changes in a natural development process along with the age of the child. Mostly in groups of children of the same age, the mentioned changes are the same unless they are familiar with educational procedures, with more expressive methods and techniques. Children's acquaintance with different techniques and methods of painting with the said recommendations happens in the optimal situation in the Zone of Proximal Development so that it is not considered undue interference in the child's work, and of course, the suggestion emphasized in this article is to determine the limits and boundaries of this interference. As explained, Vygotsky believes that the most learning of a child occurs in a range between his minimum and maximum mental ability, which he called the Zone of Proximal Development. By proposing this concept, he refers to tasks that the child cannot handle alone due to lack of experience but can do with the help of more skilled people. Vygotsky considers the Zone of Proximal Development as an area where the child can move beyond his current level, so conventional tests in the current educational system (educational systems influenced by Piaget or the like, without the help of people) do not detect the child's cognitive capabilities because they can only measure the current level of development and cannot determine the child's cognitive capacities (Hedayati, 2009). Therefore, in response to the level of involvement and assistance in children's painting education from the perspective of the proposed theory (the socio-cultural perspective of Vygotsky's Zone of Proximal Development), samples with brief explanations have been presented. These samples are presented and examined within the permissible scope of mutual understanding and indirect help of the trainer and children's drawing. Samples of children's paintings before and after the help of the trainer and others are:

1. The child's painting before the trainer's training and assistance, at the level of the child's minimum ability (in the period of natural development, regardless of Vygotsky's theory)

As it was said, in the child-centered approach, which is based on the psychology of development and considers the stages of child development as guidelines for the design of educational programs, children's art and painting experts believe that the stages of child development in painting happen sequentially at different ages, even if the child does not receive special education. «During these stages, the child uses any means at his disposal for necessary activities and painting. That is why, in response to the question of families teaching their children how to draw, it has been pointed out many times that children only need the right drawing tools and how to use them before primary school or even during the elementary education period, unless a knowledgeable trainer takes charge of their child's education. In this period, the child's trainer should either be aware of the role, duty, and limits of his involvement in the child's art education, or he should only guide the child to use the tools so as not to suppress their creativity and not harm their development» (Sodagar, 2020). From this perspective and the author's experience, the idea is also true that first, the period of the natural development of children (Jean Piaget's staged maturity period) should be considered seriously in painting education; Second, the trainer's guidance for children up to the age of at least 9 should be based on the student's spontaneity and to the extent of their ability to teach painting. The trainer's questions about the techniques, subjects, and phenomena around the child, as will be explained in the future, will cause this spontaneity, and teaching art to children will open the way to create original and unique works that will distinguish the children's works from each other and have a scaffolding effect. It also will show the positive role of the trainer in their work. Two samples painted by students (7-year-old Morteza Ghafourian and 9-year-old Seyyed Mohammad Hossein Amini) (Fig 1 & 2) show children's works which were painted without the involvement of the trainer or the family in the child's painting and mentality, using ordinary tools to which most children have access. These students can create many works at a level higher than their current level with a little guidance or change in tools or with the explanations and mediation of a knowledgeable instructor. In the following samples, the influence of the tool and the trainer's opinion is clear.



Fig 1. Morteza Ghafourian, 7 years old (with no intervention of the trainer /colored pencils).
Source: Author.



Fig 2. Seyyed Mohammad Hossein Amini, 9 years old (with no intervention of the trainer /colored pencil).
Source: Author.

In the following samples, the works of a 5-year-old child (Mohammed Hossein Rekabsaz) (Fig 3 & 4) are presented. These devices have been provided to him by the recommendation of a trainer and his family; devices with which the child can easily create an effect and do not pose any danger to him. From the family's point of view, the change in work tools has

created a great passion for painting in the child and has increased the number of the child's work.



Fig. 3 & 4. Mohammad Hossein Rekabsaz, 5 years old (with no intervention of the trainer, in these samples, instead of ink, the new tool of oil crayons is provided to the child). Source: Author.

2. Children's painting after the trainer's scaffolding and educational conversation (according to Vygotsky's theory of the Zone of Proximal Development)

In this section, we will encounter samples of children's paintings that were formed with the guidance of the trainer and the educational models explained. This guidance is done in two general headings, including the method and technique of using work tools and then focusing on the subject and developing the mindset and developing the student's perspective by the instructor (Fig 5 & 6). In these samples, generally, the entire painting page is painted according to the trainer's recommendation; while in the samples where children draw without the trainer's intervention, they do so on a white screen with no color.

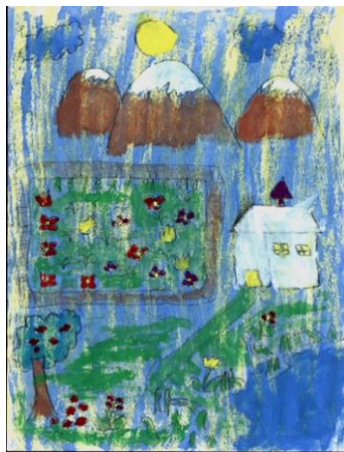


Fig 5. Saeedeh Yousefpour Yousefi, 11 years old
Technique: Crayon, color pencil and gouache with the guidance of the trainer in teaching the technique of combining materials, crayon, and watercolor.
Source: Author.



Fig 6. Maryam HoushmandZadeh, 8 years old
Technique: fabric collage and gouache, with the help of a trainer in teaching fabric collage technique and use of gouache paint. Source: Author.

After observing these samples, important questions are raised that generally express the amount of help the trainer or parents give to the child. The answer to these questions is important for trainers because it determines the extent and contribution of the trainer's or adult's involvement in the child's thinking, creativity, and expression.

Models for the level of trainer involvement based on Vygotsky's socio-cultural theory (Zone of Proximal Development).

Based on the author's experiences working with children and studies conducted in educational methods (memory-based or thinking-based methods), the idea was obtained that children need to «know the working tools» (as a tool for expressing thoughts and stimulating the mind by creating questions and inquisition), acquire hand skills, and have «a careful look and an inquisitor mind». Therefore, programs and work patterns were designed in stages based on knowledge of work tools, hand training, and eye and mind strengthening. Samples and descriptions of each painting are related to one of these stages. The theoretical basis of benefiting from these models for teaching painting to children are the models that are currently under the title of teaching philosophy to children (P4C) in the program of teaching philosophical thinking. These models believe in strengthening the inquiring mind for the development of children's thinking in the thinking-oriented educational method, in contrast to the memory-oriented educational method. This model is a criticism of Piaget's thinking (developmental thinking and staged development in the stages of cognitive development³), which considers the child's mind immature for abstract thinking except in the stage of formal operations from around the age of 11 to 15 years. Also, this model takes Vygotsky's theory of the Zone of Proximal Development as its supporter. Vygotsky's theory, as mentioned, emphasizes the use of the help of adults or more skilled peers to raise the child's mental ability (in the Zone of Proximal Development) to teach children to think from childhood.

The first model: Recognizing work tools and increasing hand skills

The intended program for learning about work tools was designed in such a way that the child gets to know the tools of painting with different characteristics of the tools and then uses them on a topic of his choice. In the samples, the child has learned to work with gouache, crayons, and other tools, experienced the characteristics of combining materials such as thin gouache and crayons in manual exercises, and then presented with a topic of his choice. In this process, the trainer's verbal scaffolding is always done with no manual intervention. The trainer's assistant is a guide, and the child learns how to use techniques, methods, and materials based on his experiences and exercises. In his conversations with the child, the trainer asks questions in the manner of the Philosophical Thinking Training Program (P4C) to engage the child's mind, and finally, the child's answer to these questions appears in his painting (Fig 7 & 8). The questions that the trainer considers for this program include: Why do you get the equipment and work tools like this? Can you use this tool in another way? Without a stencil, what can you use instead of a stencil for painting? If you combine colors (a) and (b), what color will it be? What happens if you combine (c) and (d)? What will happen if you use the substance (g) a little more diluted? What happens if you use the substance (c) unusually and conventionally that you have learned so far? and questions can have answers that even the trainer himself has not experienced some of those answers. The trainer asks questions according to his theoretical and practical information

and in this way awaits the student to personally achieve the joy of discovering colors and combining materials.



Fig 7. Dariush Sangari, 7 years old.
Technique: Crayons and watercolors with the help of a trainer in understanding techniques and colors.
Source: Author.



Fig 8. Amir Meysam Jahandideh, 9 years old/
Technique: Painting with a stencil, brush, and gouache with the help of a trainer in learning the technique of painting with a brush and gouache. Source: Author.

The second model: Training a careful look

In a program that was designed based on the training of the eye and increasing the accuracy of observing, the child was told through a conversation to prepare tools, look around him, and observe the things he has seen once more, and carefully and curiously draw what he saw. The events of everyday life and being careful in one's own life and those around are the most suitable subjects that the child deals with in this practice. The presented samples are paintings that are based on the program of developing a careful look. The questions that the trainer considers for this program include: Have you ever looked down on your surroundings? Look out the window, are the colors of things the same as the colors that are near you? Are colors better seen in the light or the dark? Why? Can you show the difference in colors in your drawing? Focus on the surrounding people, what is in their hands? Can you draw them walking, talking, fighting, etc.? (Fig 9 & 10).



Fig 9. Iman Qazvinian, 8 years old
Technique: Pencil and gouache with the help of a trainer in giving a mindset to reach the subject.
Source: Author.



Fig 10. Fatemeh Musapour, 9 years old
Technique: Pencil and watercolor with the help of a trainer in giving a mindset to reach the topic.
Source: Author.

The third model: Educating the inquiring mind

Storytelling and imagination are the first steps to developing the child's mind. In this program, the child is guided by story-based dialogue toward things he has never seen and may imagine and picture in his mind. In this program, topics such as «life under the sea», «what happens in space and the world of stars», «the invention and discovery of impossible things», and «the depiction of dreams and imagination» are among the topics towards which

children are guided. The topics that the trainer considers for this program include a painting of a journey to the night sky and picking stars, a journey to fall in the veins of leaves, a journey to the depths of the earth, etc., a painting of a rainbow device, a rain-making device, a wish-changing device, etc. (Fig 11 & 12).

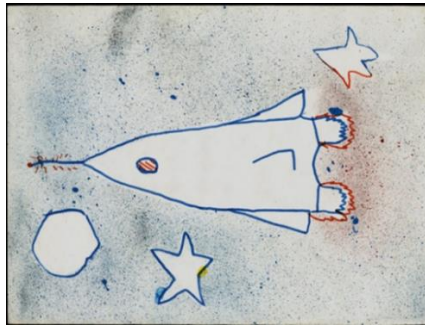


Fig 11. Ehsan Emami, 8 years old
Technique: Marker and spraying with a brush and gouache with the help of the trainer in explaining the method of spraying and the idea of the subject.
Source: Author.





Fig. 12. Najmeh Mahdian, 10 years old
Technique: Gouache and crayon with the scratch board method with the help of the trainer in the method and idea of the subject. Source: Author.

Other samples of children's painting before and after being influenced by targeted education

These samples show the difference between students' work before and after training. In line with Vygotsky's theory of the Zone of Proximal Development, the trainer has played a guiding role in the process of creating these works in a pre-defined range proportional to the minimum and maximum ability of the child. The operational and educational recommendations of the trainer (guidance and scaffolding of the trainer and parents) following the child's ability to draw pictures and how to use techniques have a visible and favorable effect on their work. In the table below, it is summarized as models for trainers to deal with students in teaching painting to children.

Table 1. Samples of children's paintings before and after using the trainer's recommendations in line with Vygotsky's sociocultural theory of the Zone of Proximal Development. Source: Author.

No	Student profile	Painting before the intervention and scaffolding of others (trainers, elders, parents)	Painting after the intervention and scaffolding of the trainer and others in line with the theory of the Zone of Proximal Development	The model and titles of the training recommendations of the trainer and others in line with the theory
1	Milad Khorasani 6 years old			Guidance on the same topic; advice to look differently; Using a pencil to draw and paint with watercolor













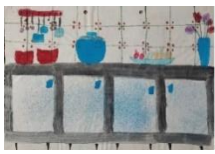
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Journal of Art Faculty, Shahid Chamran University of Ahvaz

Teaching Painting to Children Using Vygotsky's Sociocultural Theory of «Zone of Proximal Development»

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No	Student profile	Painting before the intervention and scaffolding of others (trainers, elders, parents)	Painting after the intervention and scaffolding of the trainer and others in line with the theory of the Zone of Proximal Development	The model and titles of the training recommendations of the trainer and others in line with the theory
2	Abd ol-Reza Fazeli 8 years old		 	1. Guidance for using the technique of combining materials (Crayon and thick gouache) in the scratchboard way. 2. A guide to using surrounding objects to make a stencil combined with painting and using the spraying method.
3	Mohammad Ansari Jaber 9 years old			Recommendation to continue the topic and change the material; Using thin and thick gouache after drawing with a pencil.
4	Nastaran Mirdamadi 6 years old	 	 	1. Recommendation to continue the topic and draw some parts bigger and use thick watercolor and crayon. 2. Recommendation to continue the topic and draw some parts bigger and use thin gouache and drawing pencil.
5	Mohammad Ali Akhavan 8 years old	 	 	1. Recommendation to observe other things in nature and change the materials according to the subject and change the technique from ink to thick watercolor. 2. Recommendation to draw another part of the house along with changing the materials; Using pencil in drawing and painting with watercolor.

No	Student profile	Painting before the intervention and scaffolding of others (trainers, elders, parents)	Painting after the intervention and scaffolding of the trainer and others in line with the theory of the Zone of Proximal Development	The model and titles of the training recommendations of the trainer and others in line with the theory
6	Mohsen Namdar 9 years old			1. Recommending to observe other things in nature and changing the materials according to the subject and changing the technique from ink to watercolor. 2. ecommendation to draw other family members along with changing materials; Using gouache for coloring.
				
7	Ehsan Tanhaee 8 years old			guidance on the same subject (house and tree) and recommendation to change materials; Collage with handmade colored paper.

Pre-Conclusion Discussion

The current research is based on a theory in developmental psychology studies entitled «Socio-Cultural Theory of the Zone of Proximal Development» by Leo Vygotsky, and seeks to answer the question that «in the methods of art education in teaching painting to children, which is a creative activity and sometimes with no need for trainer's scaffolding is being done by the children, what role should the trainer play so that it is not a roadblock in the development of young students?» In other words, this research seeks to determine «where the limits of the child's trainer 's involvement in teaching children to draw are». In response to these questions, explanations were provided showing that the art trainer should be a facilitator, a scaffolder, or a mediator who guides and directs the child or student from their current level to a level beyond what they are. While examining the samples, solutions were given to explain this mediation. Also, in the sample of paintings of this research, the works of children were presented, with no trainer's scaffolding, to the extent of his usual ability, and also with the scaffolding and mediation of the trainer, which led to the improvement of the quality and quantity of the works. In this process, the reviewed paintings are the works that have been done according to the models following Vygotsky's theory of the Zone of Proximal Development. As mentioned, the mediation of the trainer and the help given to the child has been done to the extent of providing a solution for the student to familiarize himself with the technique, topics, and explanations according to the mentioned models (under the supervision of the trainer or with the parents). The method of using the applied technique (pencil and other tools), topics, and patterns are verbal and questioning, and in the process of learning experiences during the educational program, along with recommendations and troubleshooting, they are given to children. Awareness of the subject, from the sum of what is heard, the media and the school during different times,

and the social and economic status of the families has also been effective in advancing this program. According to the mentioned cases, the findings of the research show that Vygotsky's Zone of Proximal Development can be called the process to open the way and the extent of the trainer's involvement in teaching drawing to a child. Of course, it seems that this theory is more supportive of children. Because the basic foundations of the development of the child's personality and individuality are built at this age and flow throughout his life, and future as a human being, it is of special importance, and therefore, it is the focus and emphasis of psychologists. However, since the upbringing, development, and education of a human being is always important and ongoing, this theory can be extended to all methods of teaching art to teach painting in all grades and age groups. Because usually, all those who are trained in art programs need to be encouraged to do personal experiences with the mediation and guidance of their trainer to realize their abilities, and in the next step, they go beyond their imagined abilities, which can be defined within the scope of each person's development. If the art trainer does not provide this opportunity for discovery and experience along with the guidance and workshop for the student, he has blocked the path of creative and audacious activities for the student. In other words, the art trainer should be able to guide and scaffold each person's potential abilities in the area and region of their development without interfering wrongly in the work of their students, without suppressing their creativity, so that these abilities in the actual situation become works that result from the trainer's scaffolding and the student's work, not the reproduction of the trainer and his usual methods. In this case, each of the students continues his artistic activity in his creative way and with an idea that he has achieved personally but with the guidance and teachings of the instructor, without having an industrial activity similar to others or the trainer in his career.

Conclusion

According to Vygotsky's socio-cultural theory of the Zone of Proximal Development and the samples of the presented paintings, the defined abilities of each person change beyond the current level, because these people undergo artistic training with the mediation and scaffolding of a knowledgeable trainer. In the same way, the correct role of the trainer leads to the motivation, persuasion, and encouragement of children and students, and will motivate them to review the surroundings, topics, research in the issues, and types of aesthetics. According to this theory, the trainer, through his conscious mediation, introduces each student as a unique human being and forces him to reconsider his previous ideas, rather than multiplying them with the unnecessary interference of similar students. The experience of the author, who has followed various topics of art education from pre-primary school to post-graduate courses in the same way and with the knowledge of the mentioned theory in different age groups, shows that with this method, the trainer can also play an effective role in teaching students skills (at the maximum level of their ability) and changing their aesthetic taste. This change of attitude was also clear in the works created by the students, and it was helpful for their careers.

Research Recommendations

Based on Vygotsky's sociocultural theory of the Zone of Proximal Development, this research takes a different look at the theory explained in an analytical view and even beyond education in children's age groups, to expand the Zone of Proximal Development theory and generalizes it to the way of scaffolding children's drawing trainers. The whole

community of art students is also in all age groups. This ability to expand because of the potential and increase ability of people in managing trainer's scaffolding, mediating, facilitating, or correctly guiding, is the recommendation and subject of the present research. It is also suggested that the results of this research be conducted in other studies for the education of other fields of art.

Appendix

1. Philosophy for children; this program in Iran has been called «P4C» by the Research Institute of Humanities and Cultural Studies of the Ministry of Science, under the name of «P4C», philosophy for children and teenagers.
2. According to the current agreement, a child means any human being under 18 years of age, unless a lower legal age is determined according to the law applicable to the child (Article 1).
3. Piaget's stages of cognitive development: The first stage; Sensory-motor intelligence (from the birth to 2 years old) stage of knowing objects through senses and motor activities. The second stage; The pre-operational stage (2-7 years old), the pre-operational thinking period and the strengthening of sensory-motor abilities combined with exploration and experience and the child's self-control period. The third stage; The concrete operational thinking stage (7-11 years old), the period of decentralization and reversibility only about the objects he has already experienced. The fourth stage; The formal operational thinking (11-15 years old), the stage of new thinking skills along with understanding abstract issues and matters (Dalvandi, 2010, 45).

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